

Degrowth and eco-villages, what can social housing corporations learn?

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Student: Lisa Dietvorst – S3705366

Supervisor: Ward Rauws

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Abstract

A degrowth movement is on the rise, advocating for “an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions of the local and global level, in the short and long terms”. The literature identifies a wide variety of ways in which spatial planning can contribute to a degrowth future, housing development is one of them. This research specifically investigates eco-villages as this specific type of housing development is often referred to as the ideal degrowth human settlement. A common critique of degrowth is that it rarely reflects on how the values and principles of degrowth could be applied onto bigger urban systems, instead of limiting the scope to local initiatives on the community or neighbourhood level such as eco-villages. Therefore, this research aims to see what housing corporations can learn from eco-villages in adopting degrowth principles to their housing supply. A multiple case study was performed using mixed research methods to analyse 4 degrowth principles: ecological sustainability, social aspects (such as community building and social cohesion), autonomy and affordability. This research reveals that eco-villages are quite successful in applying degrowth principles to their initiative and that they can pose as inspiration for housing corporations to implement these principles as well. The main conclusion from this thesis is that there are several opportunities for housing corporations to learn from eco-villages, with most potential being in the ecological sustainability of the housing supply. However, there is a share of challenges and barriers that need to be considered. Especially the question of desirability for housing corporations to apply these principles was raised, because a variety of risks that came to light, such as reduced rentability and affordability and the risk of nuisance. Further research is needed on the possible role of housing corporations in the degrowth transition and further studies are recommended on the desirability of applying these principles to the housing stock.

Keywords: Spatial planning, degrowth, housing development, eco-villages, housing corporations

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Chapter 1 – Introduction

Chapter 1.1 – Background: the degrowth challenge in spatial planning

The world is facing unprecedented challenges and issues regarding the critical planetary boundaries. The concept of planetary boundaries introduces 9 processes that regulate the stability and resilience of the Earth's system. All boundaries represent components of the Earth's system critically affected by human activities and relevant to Earth's overall state (Richardson et al., 2023). When staying within these boundaries, humanity can safely continue to develop and thrive for future generations (Stockholm Resilience Centre, 2023). However, currently 6 of these 9 planetary boundaries have already been transgressed, suggesting that Earth is now well outside of the safe operating space for humanity. These transgressed boundaries are climate change, chemical pollution, biosphere integrity, land system change, freshwater change and biogeochemical flows (Richardson et al., 2023).

Many argue that this crisis is mainly caused by the current global economic system that is organized around growth, and its accompanying consumption (Hickel, 2018; Paulson & Buchs, 2022; Vincent & Brandellero, 2023a). The relationship between a striving for economic growth and ecological breakdown is well established in the empirical record (Hickel & Hallegatte, 2022). In a biophysical system with finite resources, it is impossible for an economy based on these resources to grow infinitely (Wächter, 2013). Consequently, human beings and their mass production and consumption activities are thought to be at the root of the global warming crisis we are currently experiencing (Copiello & Grillenzoni, 2020).

Urbanisation has been shown to play an important role in this striving for economic growth and production, with cities being called “growth machines” (Khmara & Kronenberg, 2023). However, there have also been hopes that cities would become “agents of change” for sustainability (Vliet 2002). Cities have already often been places where new initiatives and interventions for sustainability have originated. Degrowth is one of these sustainability initiatives that have emerged on both global and urban agendas (Khmara & Kronenberg, 2023; Krähmer, 2021). The degrowth movement advocates for “an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions of the local and global level, in the short and long terms” (Chiengkul, 2018).

The debate on degrowth and the role of spatial planning linked to it has only recently arisen (Krähmer, 2021). Planning currently has a pro-growth agenda which is mentally and institutionally hard to

overcome. However, an increasing number of planning authors have begun to use and incorporate degrowth ideas (Durrant et al, 2023). The literature identifies a wide variety of ways in which spatial planning can contribute to a degrowth future. It can, for example, function as a support system for renewable energy production, help facilitate a more resource-saving lifestyle, create social capital through more community-based facilities (Wächter, 2013) and limit social and spatial inequalities caused by specific types of housing development (Cucca & Friesenecker, 2022). Savini (2021) adds to this by noting that cities and urban planning offer opportunities for transformative degrowth practices such as cohousing, active mobility, farmer's markets, self-sufficient housing, non-commercial sharing, and urban gardening.

Housing is an especially important topic in urban planning and is therefore often discussed by degrowth proponents. Degrowing housing development would come in the form of transforming and re-allocating existing housing stock, refurbishing and reusing existing buildings and brownfield areas rather than promoting new housing developments, creating communal houses, promoting co-housing practices such as eco-villages, and enhancing inhabitants' participation in decision-making processes (Cucca & Friesenecker, 2022; Mete, 2022; Xue & Kębłowski, 2022). Even though there are a lot of ideas about how degrowth and housing development can work together, there is a lack of a clear-cut programme about how to achieve this (Ruiz-Alejos & Prats, 2022).

Chapter 1.2 – Scope and aim of the research

This research looks into degrowth and its connection to housing development. It investigates eco-villages as this specific type of housing development is often referred to as the ideal degrowth human settlement (Hickel, 2021; Xue, 2022). Through a comparative case study on 4 different eco-villages located in the Netherlands, this research aimed to see how eco-villages adopt degrowth principles and to what extent these practices can inspire large housing schemes.

The Netherlands provides a relevant context for this research project. First of all, the Dutch government has big ambitions of making housing and housing development more sustainable. One of the ways in which this can be seen is in the National Climate Agreement which is an agreement about climate goals between the Dutch government and many Dutch organisations and companies. The National Climate Agreement of 2019 dictates that, amongst others, Co2 emissions need to be reduced in order to prevent further global warming (Rijksoverheid, 2023b). In order to achieve this, agreements have been made with different sectors, amongst which the built environment, about certain measures that have to be taken in order to reach the national climate goals (Rijksoverheid, 2023a). These

measures include making 1,5 million already existing houses more sustainable, providing homeowners and renters with subsidies and advice about sustainability and making neighbourhoods natural-gas free (Ministry of Economic Affairs and Climate Policy, 2019). This new assignment in the Netherlands to increase the sustainability of the housing supply could provide new opportunities for new sustainable housing initiatives. It is therefore interesting to look at the Dutch context.

The second reason is that there are already a lot of local sustainable housing initiatives in the Netherlands, amongst which around 70 eco-village initiatives are part of the Global Ecovillage Network (GEN) (GEN-NL, 2023). This has provided this research with a variety of options to choose from. The final reason is that the Netherlands is my place of residence which provides me with better and easier access to data and data collection.

One common critique of degrowth is that it rarely reflects on how the values and principles of degrowth could be applied onto bigger urban systems, instead of limiting the scope to local initiatives on the community or neighbourhood level such as eco-villages (Xue, 2022; Xue & Kębłowski, 2022). The bigger-scale urban dimension of degrowth has been underexplored resulting in a lack of analytical tools, planning principles or political agendas applicable on the urban scale (March, 2018). Therefore, this research will analyse the results from the interviews with the eco-villages and aims to see whether these ideas can also be used by social housing corporations to implement degrowth in their projects and provision of housing. This research has chosen to focus on social housing corporations because they manage a large part of the housing stock in the Netherlands. In 2021, 28,8% of all the houses in the Netherlands were social housing, which is for the most part managed by social housing corporations (Ministry of the Interior and Kingdom Relations, 2021). Another reason is that social housing corporations focus on the lower income groups with their provision of rental houses. By placing a maximum rent limit to keep housing affordable for lower-income people, they differentiate themselves from normal rental houses (Scanlon et al., 2014). This rent limit creates equal opportunities for housing which is in line with existing degrowth principles on improving equality (Schneider, 2018).

The **main research question** that will be answered in this research is the following: *What can social housing corporations learn from eco-villages in adopting degrowth principles?*

From this main research question, a couple of **sub-questions** arise to help answer the main question:

- *How do eco-villages in the Netherlands adopt degrowth principles in their initiative?*
- *What opportunities and barriers do these eco-village initiatives face in adopting those principles?*

- *How can these experiences inform the take-up of degrowth principles in social housing developments in the Netherlands?*

Chapter 1.3 – Reading guide

Chapter 1 has just described why it is relevant to do research on degrowing housing development in this current day and age, and what research questions will be answered in this thesis. The rest of the chapters are structured as follows: **Chapter 2** provides information on the main concepts of this thesis: degrowth, eco-villages and housing corporations. Here, the concepts are explained, and connections are explored. **Chapter 3** explains how a combination of a document review, website analysis and interviews are instrumental in analysing for eco-villages projects and how subsequently a focus group was used to look at the potential for housing corporations to apply degrowth principles to their housing stock. **Chapter 4** answers the first 2 sub-questions by describing whether and how degrowth principles are applied in eco-villages, and what opportunities and barriers they face there. **Chapter 5** answers the last sub-question by looking at the potentials and pitfalls for the take up of degrowth principles for housing corporations, are they similar to what is found in the eco-villages? Finally, **chapter 6** presents the conclusion of this thesis, what can social housing corporations learn from eco-villages in adopting degrowth principles? After that, the implications of this research for the practice of the planning field, limitations of this research, a personal reflection, and certain lessons that eco-villages and housing corporations can learn from the results of this research and apply in practice are discussed.

Chapter 2 - Theoretical framework

Degrowth is one of the central concepts that is used in this research. This chapter provides a definition of degrowth and goes on to show the connection between degrowth and housing development. This thesis is focussed on the Netherlands, which is why the situation of the Dutch housing market, and its governance is also elaborated on. Social housing corporations play a central role in this thesis and are also described and explained. The final chapters of this theoretical framework go into detail about 1 specific type of degrowth-related human settlement, eco-villages. Eco-villages are defined and their connection to degrowth is explained and explored.

Chapter 2.1 – What is degrowth?

The current system of striving for economic growth and its relationship to ecological breakdown has been well established in the empirical record and literature (Hickel & Hallegatte, 2022). Critiques on this growth-oriented system have led to a debate on going beyond growth. According to (Widuto et al., 2023), the main strands of this growth debate that are found in academic literature can be divided into *green growth*, *post-growth* and *degrowth*. According to green growth theory, economic growth can still continue whilst being compatible with our planet's ecology, because of certain technological advancements that will make it possible to decouple GDP growth from resource use and carbon emissions (Hickel & Kallis, 2020). However, other scholars and activists are increasingly challenging the feasibility of unending economic growth and therefore argue for a post-growth and degrowth perspective (Durrant et al., 2023; Pansera & Fressoli, 2021; Savini, 2021). Academic literature does not always distinguish between post-growth and degrowth, the concepts are often used interchangeably (Vincent & Brandellero, 2023b), however, they are not completely the same. Paulson & Büchs (2022) explain post-growth as: “united under the broad vision of an economy and society where the pursuit of economic growth is deprioritized in favour of social and environmental well-being.” The term post-growth is often used to describe an economy that places a priority on well-being instead of focusing on GDP and growth (Vincent & Brandellero, 2023b). Degrowth is often seen as a form of post-growth future (Paulson & Büchs, 2022).

The concept of degrowth (‘*Décroissance*’ in French) was introduced at the start of the 21st century (Demaria et al., 2013) and has increasingly grasped the attention of scholars, activists and politicians interested in finding an alternative to capitalism (Mocca, 2020) and the predominant idea of economic growth (Xue & Kębłowski, 2022). Degrowth is seen as a social movement, a political debate and an academic research field (Xue, 2022) and is commonly defined as “an equitable downscaling of production and consumption that increases human well-being and enhances ecological conditions at

the local and global level, in the short and long term” (Schneider et al., 2010). By letting go of the system of economism and the constant striving for growth, degrowth aims to achieve reduced inequality (Hickel, 2021) social justice, quality of life, democracy and ecological sustainability (Martínez-Alier et al., 2010). For advocates of degrowth, growth is the source of Western society’s environmental and social ills, not just as an economic phenomenon but as a culture and paradigm of thought (Kallis, 2018). Structural reforms are needed, amongst others, to achieve a degrowth society. Examples of such reforms are environmental policies (resource and CO2 caps, extraction limits), social policies (basic income, maximum income, social security guarantees, reduced working hours) and economic proposals (social enterprises and cooperative firms, ethical banks, environmental taxation (Petridis et al., 2015).

According to some degrowth advocates, the local and the sub-local level (such as communities, neighbourhoods etc) are considered to be the optimal scale for experimenting with alternatives to consumerism and economism (Mocca, 2020). It is also important to note that degrowth is not the same as negative growth (economic recession) and economic downsizing is not a goal in itself (Schneider et al., 2010). It is envisioned that a period of negative growth might occur on the path to degrowth, but only during the time needed for a transition to an economic system that does not collapse with a decrease in economic activity (production & consumption) (Cosme et al., 2017).

Chapter 2.2 – Degrowth and (social) housing development in the Dutch context

Chapter 2.2.1 – Degrowth and its connection to housing development

Urban settlements can offer a multitude of possibilities for implementing degrowth principles (Savini, 2021). They offer room for transformative practices alternative to competitive growth such as: co-housing, active mobility, self-sufficient housing, non-commercial sharing and urban gardening (Savini, 2021).

According to some degrowth proponents, enhancing well-being and a more just society is the ultimate goal of degrowth (Marcuse et al., 2009). Degrowth scholars argue that urban development can possibly promote a higher level of equity in access to housing, transport services and the equal distribution of environmental benefits and burdens when adopting degrowth principles (Xue, 2022).

How planners deal with residential development can have a big impact on environmental sustainability and social justice (Xue, 2018). Therefore, according to Xue (2018), current planning and housing strategies need to be revised in order to fulfil a degrowth future. The current capitalist housing system

is focused on growth-based housing development, which includes capitalist forms of production, consumption and distribution of dwellings (Mete, 2022). Housing has become a tradable good, following the markets rule and increasing the speculation tendencies (Mete, 2022), and it is currently centred around private property and ownership rights (Nesterova, 2022). All of this puts housing accessibility and affordability for everyone at risk (Mete, 2022). Cucca & Friesenecker (2022) argue that the privatisation and economisation of the housing sector have increased issues of inequality, injustice, and sustainability. Decreasing such inequalities and injustices and improving sustainability are central principles in current degrowth movements.

The degrowth narrative on housing is very distinctive to that of the current capitalistic system. Degrowth advocates see houses as places to fulfil important social needs and basic human rights instead of as financial investments and objects of consumption (Schneider, 2018). Degrowth movements aim, among others, to face the current inequalities in housing and the difficulty of access to basic housing by minority groups (Schneider, 2018). According to Nesterova (2022), this requires amongst others that ownership rights are adjusted. Choices need to be made on the grounds of what is sustainable for human and non-human life (such as affordable housing development and organic agricultural projects) instead of what is economically best for the owner (e.g., to build a shopping centre or a standardized block of flats).

Degrowth scholars have already identified some small and large transformations that are in line with key degrowth values. Cucca & Friesenecker (2022) propose changes such as: social justice in housing (involves ensuring the right supply of affordable housing), voluntary simplicity in living practices (such as using less energy or downsizing from a big to a smaller house), reducing housing sector material and energy flows, reducing the ecological impacts of housing activities and encouraging housing settlement types favourable to deeper democracy (such as co-housing, eco-villages, and communes). According to Nesterova (2022), housing for degrowth can come in a wide diversity of options and changes. She provides us with a list of possibilities that include tiny houses, using natural, reclaimed, and repurposed materials, co-living and changes in ownership (common instead of private). Schneider (2018) adds to this by proposing renovated dwellings that improve living conditions, developing compact settlements, redistributing access to housing and de-urbanizing and renaturalising certain areas. One type of human settlements that aligns with multiple of the aforementioned changes and is often referred to in degrowth literature as an ideal degrowth human settlement is an eco-village (Xue, 2022). The concept of eco-villages is central in this thesis and is further elaborated on in chapter 2.3.

Degrowth approach to housing	Scholars
Equality in access to housing	Cucca & Friesenecker, 2022
Housing with lower impact on the environment	Cucca & Friesenecker, 2022, Nesterova, 2022
Reducing the size of houses	Cucca & Friesenecker, 2022; Nesterova, 2022; Schneider, 2018
Changing ownership from private to common	Nesterova, 2022
Housing for the benefit of the residents instead of for profit	Schneider, 2018; Nesterova, 2022
Shared living practices with increased autonomy	Cucca & Friesenecker, 2022

Table 1: summary of the aforementioned characteristics of degrowing housing

A concern for upscaling a degrowth approach to housing is a general scepticism towards larger urban systems. Degrowth literature typically advocates for bottom-up initiatives on the local and neighbourhood level (Xue, 2022). This neglect to look at how the values and principles of degrowth could be applied to housing development on a higher geographical scale might form an obstacle to a successful degrowth transformation (Muraca, 2012). This thesis therefore argues that, in order to work towards a degrowth society, the larger urban scale needs to be considered as well. The bigger scale could be for example housing corporations or other bigger developers, which this thesis will explore for the Dutch context.

2.2.2 – Characterising the Dutch housing supply and its governance

The Dutch housing market is currently characterised by a major supply shortage and has therefore gained a lot of interest from amongst others policy makers and developers over the past few years (Baas, 2023). This housing shortage is caused by an increase in housing demand (greying population, immigration & rise in single households), long building procedures, limited room for construction, high building costs and the current nitrogen crisis. Because of all this, it has become very difficult for a lot of people to find a house that matches their wishes and possibilities (Ministry of General Affairs, 2023). To solve this problem, the Dutch government aims to have built 900.000 new houses before 2030. 250.000 of these houses are supposed to be built by social housing corporations and will thus become social housing (Ministry of General Affairs, 2023).

The housing stock in the Netherlands consists of three types of housing tenure, namely: owner-occupied housing, private rental housing and social rental housing (Baas, 2023). In the year 2021, the

total housing stock of the Netherlands was already around 8 million houses, of which 57,1% owner-occupied houses, 28,8% social rental houses and 13,9% private rental houses (Ministry of the Interior and Kingdom Relations, 2021). As can be seen, the majority of the rental houses in the Netherlands are social housing. De Jong & Van der Moolen (2014) show that the Netherlands has the highest percentage of social housing compared to other European countries. The difference between social rental housing and private rental housing is created to keep rental housing affordable for lower-income households. This is done by placing a maximum rent limit on social housing (Scanlon et al., 2014). Since this rent limit offers more opportunities for people with a lower income, it could provide them with equal opportunities for housing, which is in line with existing degrowth principles on improving equality (Schneider, 2018). However, it is important to note that not everyone eligible for social housing will actually get access to a social rental home. People who are looking for a social rental home in the Netherlands are faced with increasingly long waiting lists, especially in the bigger cities such as Amsterdam and Utrecht, where people have to wait up to 8 years (Van der Velden et al., 2016). This poses a significant barrier to these equal opportunities for housing that are important in a degrowth society.

Almost all social housing in the Netherlands is provided by housing corporations (Veenstra, 2016). They have a significant influence on the Dutch housing supply, which makes them interesting for this thesis. The fact that housing corporations have such a dominant role in the Dutch housing market is unique from an international perspective. In other countries, the supply of social housing also comes from municipal housing companies, cooperative associations and private parties (De Jong & Van der Moolen, 2014). Housing corporations in the Netherlands are hybrid organisations. They are private entities with an explicit public task which is defined and constrained in a legislative framework established by the national government (Blessing, 2012). Housing corporations act on a commercial basis but they have to use their profits for the provision of good and affordable housing for the lower-income class (Vandevyvere & Zenthöfer, 2012). Investments and the maintenance of the housing stock are financed by housing organisations' own equity (partially derived from rental income of the dwellings) (Van Deursen, 2023) and bank loans by the Dutch State and municipalities which act as potential guarantors of last resort (Aedes, 2016).

This legislative framework was determined in the Dutch Housing Act in 1901 (Snep et al., 2023). The 1901 Housing Act integrated social housing corporations into the Dutch housing policy and placed them under government supervision. The duties and responsibilities of the housing corporations were laid down in this act (Vandevyvere & Zenthöfer, 2012). Dutch social housing corporations are responsible for adequate and affordable housing, contributing to the quality of life in the neighbourhoods, investing

in the construction of new dwellings and investing in sustainability. Saving energy has a high priority within the sustainability responsibility, as it can, besides being good for the environment, lower the total housing costs of tenants (Aedes, 2016). These responsibilities are in line with aforementioned degrowth principles which advocate for more equality, improved well-being and increased sustainability.

Important for analysing the potential role of housing corporations in upscaling a degrowth approach to housing is to understand how their investment capacity is regulated. Since the Housing Act of 2015, government support received by housing corporations can only be used for a specific type of activities. Currently, social housing corporations no longer receive direct government support, they can only apply for certain favourable loans (Minister of the Interior and Kingdom Relations, 2021). This housing act ordered a separation between daeb and non-daeb activities. Housing corporations mainly concentrate on their core tasks which are daeb activities. Daeb activities are services for the general economic interest such as social rental houses, certain social real estate and specific liveability services. This is the non-commercial branch (Ministry of Infrastructure and Water Management, 2023). Non-daeb activities are commercial activities and include the development of housing in the private sector (Ministry of the Interior and Kingdom Relations, 2023c). This separation makes sure that these government loans can only be used for daeb (social) activities instead of non-daeb (commercial) activities. One of the goals was to prevent market disruptions and make sure that housing corporations don't get overcompensated by the government (Ministry of Infrastructure and Water Management, 2023).

Currently, one of the biggest assignments for social housing corporations is to increase the ecological sustainability of their housing supply. This assignment was given by the Dutch government after the implementation of the National Climate Agreement in 2019. The National Climate Agreement is part of the Dutch climate policy and is an agreement between the government and many organisations and companies in the Netherlands to prevent global warming (Rijksoverheid, 2023b). This task for housing corporations to help create a more sustainable built environment was also laid down in the 'National Performance Agreements' written in 2022. This agreement aims, amongst others, to double the production of social rental houses, to make houses more sustainable and to make living affordable for those with the lowest incomes (Ministry of the Interior and Kingdom Relations, 2023a). One of the barriers that housing corporations faced with regard to investments in increased sustainability is money (Ministry of the Interior and Kingdom Relations, 2023b). However, because of the National Performance agreements, approximately 1,7 billion euros in investment space was freed up by removing a certain housing tax that housing corporations were obliged to pay. The aim is to use this

freed-up money for making more than 675.000 houses more sustainable and to double the production of social houses (Ministry of the Interior and Kingdom Relations, 2023b).

These policy goals and the increased investment space could be an incentive for housing corporations to explore the option of applying a degrowth approach to their housing supply. Additionally, because of this new sustainability assignment that housing corporations have received, housing corporations might be more inclined to be inspired and learn from eco-villages when looking at ecological sustainability.

Chapter 2.3 – Eco-villages and their relation to degrowth

Chapter 2.3.1 – Defining eco-villages

As mentioned in chapter 2.2.1, eco-villages are often talked about in degrowth literature when thinking of degrowing housing. They are often used as an example for sustainability and sustainable settlements (Takeuchi et al., 1998). Eco-villages can be defined as “small-scale, decentralized, self-contained human settlements” (Xue, 2022). Çohadar & Dostoğlu (2020) add to this by saying that eco-villages consist of “human-scale, healthy and sustainable development, full-featured settlements and the harmless integration of human activities in the natural world”. Eco-villages show a combination of social-, natural- and economical dimensions where the goal is to create self-reliant, ecological and participative communities that live on a local scale (Mahlabani et al., 2016). They are often rural (sometimes urban) communities of people (usually around max. a 100 people (Xue, 2014)), that want to combine a supportive and participatory environment with a lifestyle that has a small effect on the environment (Mahlabani et al., 2016). Besides the ecological and social part, eco-villages also value political participation, with the result of inhabitants having more autonomy on their lives and that of their community (Mahlabani et al., 2016).

Eco-villages are a phenomenon that can be found all over the world. A Global Eco-Village Network (GEN) has been founded which currently consists of around 500 eco-village initiatives worldwide (Bartels, n.d.). Around 70 of these eco-village initiatives can currently be found in the Netherlands (GEN-NL, 2023). Some of them have been realised while others are merely proposals, still awaiting a possible location or funding. Importantly, these initiatives merely adopt some aspects of the ideal ecovillages that are described in theory and thus theory does not characterize actual ecovillages today, it does, however, depict an overall objective that ecovillages are guided by. Eco-villages might have adopted parts of these given definitions (Juskaite, 2019).

Chapter 2.3.2 – Eco-villages and compatibility with the degrowth vision

Degrowth literature has already had a few proposals for what degrowth-inspired planning can look like. According to mainstream degrowth advocates, the eco-village vision is a good example of an ideal degrowth human settlement, since it appears to align with degrowth advocacy for localism, self-sufficiency and autonomy (Xue, 2022). However, not a lot of research is done about the direct connection between degrowth and eco-villages. According to (Lockyer, 2017), while most members of ecovillages in the Global North are not from economically disadvantaged backgrounds, the communities they have chosen to help construct are often marginalized in mainstream discourses about justice and sustainability and have received little serious attention from scholars. However, eco-villages do have some characteristics and principles that are conform to the principles found in degrowth literature. Table 2 provides a short description of the key principles that will be discussed in this chapter.

Key characteristics of eco-villages	Meaning	Link to characteristics degrowth approach to housing
Localism	A range of political philosophies that prioritize the local over regionalism and centralized government. Localism generally supports the local production and consumption of goods, local control of government, and the promotion of local history, culture and identity (Mayhew, 2015)	Lower impact on the environment
Autonomy	The right of a group of people to govern itself or to organize its own activities (Cambridge Dictionary, 2024)	Common ownership; shared living practices with increased autonomy;
Ecological sustainability	The maintenance or restoration of the composition, structure, and processes of ecosystems (Park, 2007)	Lower impact on the environment; reducing house size
Social aspects	Socially related aspects such as social cohesion and a social and supportive environment	Shared living practices with increased autonomy; housing for the benefit of the residents

Table 2: key characteristics of degrowth found in both degrowth and eco-villages

Even though the concept of eco-villages originated without explicitly referring to degrowth, they seem to share several of the same motivations and roots. A rejection of the current economic system, which disregards the negative social and environmental impact of a striving for growth, forms the root of the ecovillage movement (Bertrand, 2023), and is central within the degrowth movement. The coming section of this chapter presents some of the key characteristics of eco-villages that appear to align with what is perceived in the literature as important for the degrowth movement.

The first key characteristic that will be discussed is that of **localism**. Eco-villages typically develop social, economic and political activities and modes of lifestyle largely based around localism, which is in line with the imaginary of a degrowth society (Xue, 2014). Within the concept of localism, three different types are elaborated on here that fit the image of both eco-villages and degrowth: the (re-) localization of economic activities, community self-sufficiency and political relocation (Mocca, 2020).

The **(re-)localization of economic activities** and creating community **self-sufficiency** within the eco-village community ideally entails providing a diverse mix of essential functions, facilities, land use and production activities within the eco-village (Mocca, 2020; Xue, 2014). Eco-villages typically strive for self-sufficiency in terms of renewable energy supply, producing their own food through ecologically sustainable methods and localizing certain economic activities (Hausmann, 2019). These types of localization could create a variety of jobs within the village and satisfy villagers' consumption (food and energy) needs. It would also help keep a lot of the economic and social activities within the village (Xue, 2014).

However, with creating self-sufficiency within the village, a considerable barrier arises. Namely, obtaining full self-sufficiency is (almost) impossible for eco-villages. In reality, this localized system does not mean that eco-villages do no longer rely on facilities and services from outside of their initiative (Van Schyndel Kasper, 2008). In our current Western society, the concept of essential goods and services is quite broad and includes the consumption of those goods and services that are not fundamental to human survival such as technology, culture and entertainment (Mocca, 2020), and other important services such as hospitals, schools and supermarkets are not realistic or viable in an eco-village structure due to its small population base.

A third type of localism, which is also seen as a **second key characteristic**, is political relocation in the form of **autonomy** by residents. Similar to the beliefs of degrowth proponents, eco-villages believe that a local way of self-governance and autonomy is important. The primary reason for this 'local level preference' is that localism creates conditions and has the capacity to allow for participation and direct control in the decision-making process (Xue, 2014). It is therefore common for eco-villages to promote a participatory, community-scale governance where residents can all have a say and a role in the

community, and where social inclusion is key (Mahlabani et al., 2016). A decision-making model that is often used in eco-villages is sociocracy, which focuses on discussion, equivalence and consent between its practitioners (GEN Europe, 2023).

A potential drawback of these types of localized autonomous communities that is mentioned in the literature is exclusion. In her thesis, Holleman (2011) referred to an article (Community at the Margin) written by C. Sartwell where he notes that communities are per definition based on exclusion. He states that “It is... exclusion that makes a community possible, because the exclusions define an identity for the people to share”. According to Chitewere (2018), eco-villages have been criticised for lacking in social equity through the intentional or unintentional exclusive aspects of their communities. Lennon & Berg (2022) say that on the one hand, this social inequity is linked closely to autonomy when eco-villagers can decide who belongs or doesn't belong to the exclusive community of the eco-village. On the other hand, the ecologically sustainable lifestyles found in eco-villages can cause social inequity when it excludes those who can't afford such a lifestyle.

The third key characteristic is ecological sustainability. Besides this focus on localism and autonomy, an important aim for eco-villages is to achieve a good quality of life without having much impact on the environment (Juskaite, 2019). To achieve this, ecovillages integrate various aspects of, for example, permaculture, ecological building and design, the use of alternative and renewable energy sources for heating and electricity (such as solar panels), organic and green food production (Bissolotti et al., 2006; Juskaite, 2019; Siracusa et al., 2008), the use of biological systems in sewer treatment, a recycling system and a reduction of the consumption and garbage generation (Bissolotti et al., 2006). Another aspect of the sustainable way of living found in eco-villages is the culture of sharing. Sharing things such as cars or certain tools can significantly decrease the consumption rates of eco-village inhabitants (Price et al., 2020). In general, eco-villages appear to be quite successful with the implementation of these ecologically sustainable measures (Kirby, 2003).

However, a barrier for ecological sustainability is faced when looking at motorized mobility, which arises together with the aforementioned striving for self-sufficiency. It can be argued that the smaller the village, the more transportation is needed as the capability for self-sufficiency is lower (Xue, 2014). In order for eco-village inhabitants to consume their desired products and facilities, it is necessary to intensify the use of (motorized) transport, which in turn is bad for the environment through CO₂ emissions (Mocca, 2020). This is something that could offset some of the environmental gains generated by the previously mentioned ecological measures.

The fourth key characteristic is certain **social aspects**. While the ecological targets of an aspiring ecovillage are fundamental to its existence, the social cohesion of the village is also of great importance (Holtzman, 2014). Community building activities and opportunities are therefore important and are often attempted by building communal buildings and having certain shared spaces and facilities and participating in certain activities (Holtzman, 2014). This claim about the importance of community building and the social aspects of eco-villages is supported by the Global Ecovillage Network (GEN). In their training programme on the workings of eco-villages, community building is mentioned as one of the core ingredients (GEN, 2023).

However, some difficulties are associated with these social aspects and community building. Although implementing ecologically sustainable behaviours and aiming for autonomy requires devotion, capacities, and organisation, creating a community life that allows an ecovillage to thrive is the most complex matter. Multiple authors underline that the major challenges and barriers of ecovillages are social (Bertrand, 2023; Kirby, 2003). This statement is backed up by several communities in the research by Kirby (2003): “Whereas integrating into the built form the technology for living in an environmentally sustainable manner is relatively easy, the task of creating the kind of community that can experience and demonstrate a socially sustainable lifestyle has proven to be a much greater challenge”.

A topic that can't be considered a key characteristic of eco-villages but is important for a degrowth society and this research is that of **affordability**. In the literature, the importance of affordable housing for a degrowth society is mentioned with regard to equity in access to housing (Cucca & Friesenecker, 2022; Nesterova, 2022; Xue, 2022). Although the literature fails to present a direct link between ecovillages and equal access to houses, affordability and affordable living is a topic that does occur on the agenda of eco-villages. Griffith et al. (2022) present an example from Madrid which says that by using greener materials the building costs are somewhat higher than those of a conventional building, but their monthly expenses are lower. Some ways in which living costs can be reduced are by sharing certain things (such as washing machines or cars), by growing food for community consumption and sale or by sharing the costs of for example water recycling. This way costs are spread out over members of the community (Price et al., 2020). The topic of affordability is discussed here since it has been used as one of the main principles of degrowth during the interviews.

The four key characteristics described above show that, besides it not often being explicitly mentioned in the literature, eco-villages and degrowth do share a number of characteristics and principles. Table 3 provides an overview of the above-written key characteristics/opportunities and barriers that were found in the literature.

Eco-villages as a degrowth settlement	
Opportunities	Barriers
Localizing certain economic activities and energy & food production gives possibilities for self-sufficiency	Impossible to be fully self-sufficient
Autonomy through shared decision-making and political localization	Risk of exclusion of certain groups of people
Ecological sustainability through various ecological practices	Increased motorized mobility offsets some of the environmental gains
Community building and social cohesion through shared spaces, facilities and community-building activities	Creating community life is complex

Table 3: opportunities and barriers for eco-village as a degrowth settlement

Chapter 2.4 – Conceptual model

Figure 1 shows a conceptual model that gives a description of the most important concepts of this thesis and their relation to one another. On the left side of the model, the degrowth principles that can be seen in both eco-villages and degrowth are presented. Based on the literature, it is expected that eco-villages apply four degrowth principles in their project, namely localism, autonomy, ecological sustainability, and social aspects. This thesis aims to find out how and if these principles are also transferable to social housing in the Netherlands, by studying how eco-village projects deal with certain opportunities and barriers and by discussing their practices with representatives of housing corporations in the Netherlands.

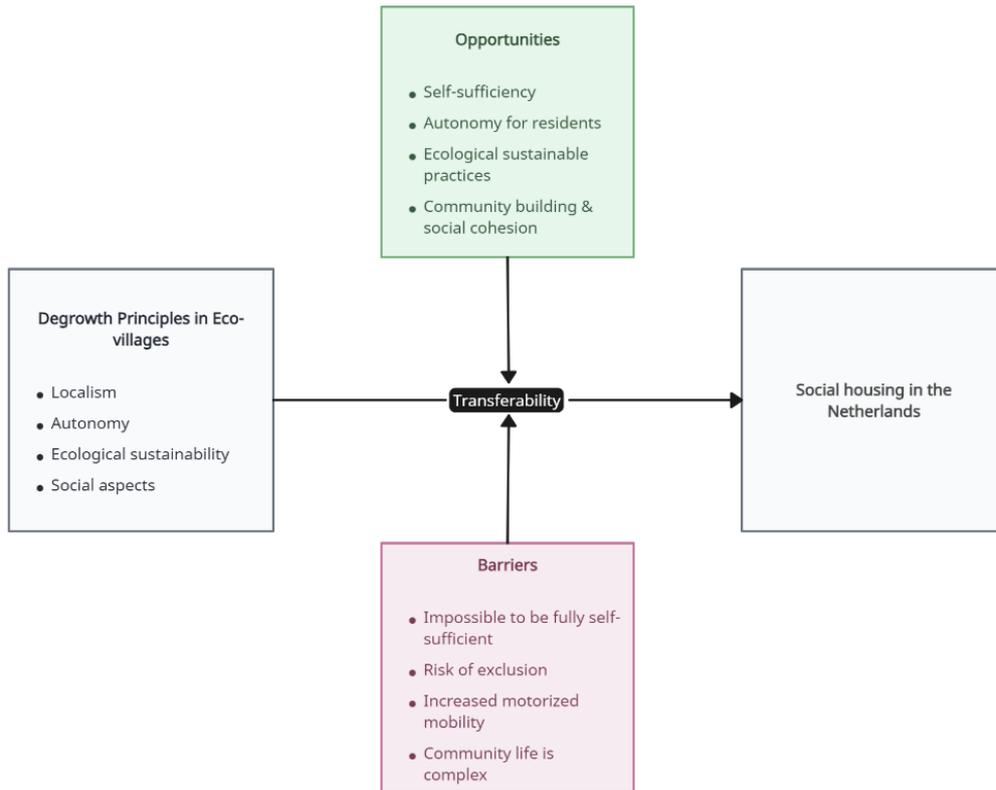


Figure 1: conceptual model

Chapter 3 – Methodology

Chapter 3.1 – Methodological perspective

Within scientific research, multiple ontologies or worldviews can be identified. A researcher's worldview or ontology can be defined as “a basic set of beliefs that guide action” (Creswell & Creswell, 2018). In their research, Creswell & Creswell (2018) identify four different worldviews that could help to ground your research approach: post-positivism, **social constructivism**, transformative, and pragmatism. This thesis makes use of the social constructivist worldview.

Social constructivism assumes that individuals seek to understand the world in which they live. They develop multiple and varied subjective meanings of their experiences. The researcher's goal is to interpret and make sense of the meanings and views that others have about the world and look at the complexity of these views. Instead of starting with a theory (post-positivism), researchers generate or inductively develop a theory or pattern of meaning (Creswell & Creswell, 2018). Social constructivism is typically seen as an approach to qualitative research, which is what this research will be using. Within their research method, social constructivists make broad and general questions which leaves room for the participants to construct their own meaning of a situation. These meanings are typically forged in discussions or interactions with other people (Creswell & Creswell, 2018). This research made use of both semi-structured interviews and a focus group, which are types of research methods that fit well within the social constructivist view.

Chapter 3.2 – Research design

In this research, a **comparative and explorative study** was performed based on a **case study design**. According to Yin (2018), the more your question seeks to explain some contemporary circumstance (e.g., “how” or “why” some social phenomenon works), the more that case study research will be appropriate. Since this research attempts to get a better understanding of how degrowth works and particularly in relation to eco-villages and housing development on a bigger scale, a case study design was seen as the right choice. A comparative study can be a form of qualitative approach in which different types of methods like case study analysis are used by researchers to explain the similarities and differences between entities or countries. Comparative research methods combine theory or theoretical concepts with data collection (Given, 2008). In the case of this thesis, similarities, and differences between a selection of Dutch eco-villages were researched. To get an image of the way that eco-villages apply degrowth principles to their initiatives, it was important to compare different cases instead of just looking at 1. This makes a comparative study with case studies suitable for this thesis.

Explorative research is usually conducted to study a problem that has not been clearly defined yet. This type of research does not intend to provide a final solution but helps to create a better understanding of the problem and can result in a range of causes and alternative options for a solution to a specific problem. Exploratory studies usually create scope for future research (Dudovskiy, 2022). Degrowth and their application to eco-villages and possibly to housing development on the larger scale is something that is currently under-investigated within the literature. There is a lack of information to be found about the possibilities to use eco-villages as an example for social housing corporations to apply degrowth principles in their practices. Therefore, an explorative study is a suitable research method for answering the main research question.

To answer the main research question, a multiple case study on 4 different Dutch eco-villages was performed. This research has chosen to focus solely on Dutch eco-villages, as already mentioned in the introduction. A couple of criteria were used in order to select the 4 eco-villages used in this research. Below, a list of these criteria is provided:

1. The eco-villages are located in the Netherlands
2. The eco-villages values and/or practices appear to align with at least 2 of the degrowth principles defined in the theoretical framework, specifically the ecological and the social principles
3. There is available contact information for the initiative

By conducting a document and website analysis, and keeping in mind these abovementioned criteria, appropriate cases were selected. The first step in choosing the initiatives was looking on the website of GEN-NL (Global Ecovillage Network) to see which eco-villages were registered there. Their website provided a list of possibilities. Other possibilities were found by searching on the internet for other sustainable community initiatives and eco-villages in the Netherlands. The choice to go for 4 different eco-villages was based on the assumption that fewer cases would not create a diverse enough image, and more cases would be too much to handle for the timeframe of this research. Below, a description and some photos of the selected eco-village are provided.

IEWAN Strowijk

IEWAN Strowijk is a sustainable residential community with 24 social rental houses located in the city of Nijmegen. They have 21 apartments of different sizes and 3 residential groups where people share all their facilities besides their own bedroom. The initial idea of IEWAN was created in 2009 and the project was finished in the year 2015. The project was realised and built in collaboration with a local

housing association (WBVG) and a housing corporation (TALIS). IEWAN has a consensus and consent form of self-governance. Which means that everyone has to agree on the decisions being made. A few core values have been established in order to create this successful initiative. The core values are sustainable & ecological, social & solidarity, educational & directed outwards. The project is built as ecologically possible by using, amongst others, sustainable materials and promoting water recycling and energy saving. A unique characteristic of this project is that they have chosen to use straw bales as building materials for the outer walls of the wooden housing complex. The future residents, together with around 200 volunteers, have participated in the building process. In addition to the 24 houses, there are a multitude of shared facilities, such as guestrooms, a special bathroom with a bath and a food cooperative. There is also a common multifunctional building called *De Kleine Wiel* where all kinds of activities are hosted, and which can be rented to people outside of the initiative.



Vereniging Aardehuis

Vereniging Aardehuis is an ecological neighbourhood with 23 self-sufficient owner-occupied houses located in Olst. The earth houses are inspired by the Earthships designed by Michael Reynolds. The future residents could all design their own homes, so the houses are all in different sizes and shapes. Originally, 3 of the houses were social rental homes in collaboration with a housing corporation. However, these houses were eventually sold and are currently also owner-occupied. The initial idea of Vereniging Aardehuis was created in 2006 and the project was finished in 2015. The core mission of this project is to build, work and live in harmony with nature in solidarity with each other and as an inspiration for the world around them. They wanted to create a project where all aspects of sustainability are interconnected and in balance with each other. This can be seen in many different things. From their use of sociocracy as a decision-making model to the use of sustainable materials, low energy use and local water supply and -purification. They also have a common building where there are a variety of shared facilities. The future residents, together with around 2000 volunteers, build the entire project themselves.



Ecodorp Zuiderveld

Ecovillage Zuiderveld is a sustainable residential community with 46 social rental houses of different sizes located in the city of Nijmegen. The community is built in the neighbourhood Zuiderveld, resulting in a sort of “village” within a pre-existing neighbourhood. The project was initiated by the CVEG (the association for ecovillages in the region Gelderland). They collaborated with housing corporation TALIS and the housing association WBVG. The building of this project started in 2020 and finished in March 2021. Ecovillage Zuiderveld has a form of self-governance based on sociocracy, where consent from all residents is key. Their main pillar is sustainability which can be seen in, amongst others, the reduction of energy use, efficient water usage, using ecological and circular building materials and the usage of several shared facilities. The initiative has a community house with a multitude of shared facilities, such as a kitchen, an office, a food cooperative and a common washing machine room. They also have a shared garden and a shared shed.



Bewust Wonen Werken Boschveld (Bwwb)

Bwwb is a sustainable residential community with 24 owner-occupied houses of different sizes located in the centre of the city Den Bosch. 23 of these houses are new construction, but 1 house was already

built on location before the arrival of the initiative. This house was renovated in a sustainable way instead of being torn down. The project was started in 2012 and was finished in the year 2018. Bwwb also has a system of self-governance based on sociocracy, where consent in the decision-making process is central. The goal was to build affordable, healthy, ecological houses with as many natural (biobased) materials as possible. There is also a focus on enhancing biodiversity and the aim to have closed cycles. They wanted to build these houses in a social living form where it is easy to know and meet each other. The residences are built around a collective permaculture garden with a shared greenhouse that includes a wide variety of shared facilities. A unique characteristic of this project is that they are completely shut off from the city’s sewer system. This is something that is normally not allowed since the initiative is located in a dense urban area.



These different cases were analysed using a variety of methodologies. The research design chosen for this case study with comparative and explorative approach is portrayed in Figure 2. It shows which methods are used to answer which research question, and what the output of these analyses are. Chapter 3.3 explains why these methods were chosen and how they were used for data collection.

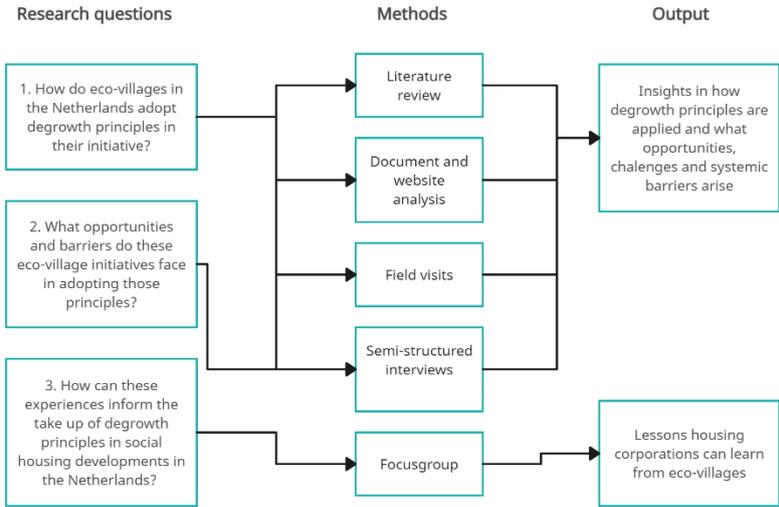


Figure 2: Systematic overview of the research design

Chapter 3.3 – Data collection

In this chapter, a description will be given of the several methods and procedures that were used in the data collection process. Which methods were used, why were these methods chosen and how was the data collected exactly? This research makes use of both primary and secondary data by combining several (qualitative) research methods. For secondary data, a literature review/analysis and a document and website analysis were performed. For the obtaining of primary data, field visits were done, semi-structured interviews were conducted, and a focus group discussion was held.

Chapter 3.3.1 – Literature review

In order to get a grasp and understanding of the main concepts in this thesis a literature review was performed. The literature review was conducted by searching, reading, analysing, evaluating, and summarizing scholarly and scientific literature about the topics of degrowth, eco-villages, housing development in the Netherlands, the governance of social housing corporations in the Netherlands, (social) housing corporations and Dutch housing corporations and sustainability. The sources consist mostly of books, journals, scientific papers and articles. Most sources were found by searching in online databases such as Google Scholar and Smartcat. Certain search terms were used to find these sources within the databases. These search terms included: degrowth, degrowth and spatial planning, degrowth and housing development, degrowth principles, eco-villages, degrowth and eco-villages, eco-villages in the Netherlands, housing in the Netherlands, housing corporations Netherlands, housing trends Netherlands, sustainable housing Netherlands, social housing corporations and many more. Additional sources were found by going through the reference list of other found articles. All the sources used in this master's thesis can be found in the reference list.

Chapter 3.3.2 – Document – and website analysis

As mentioned above, a document- and website analysis was performed in order to select the cases used in this comparative and explorative study, and to be able to get inspiration for topics for the research questions. The website and document analysis were the first step in finding out which degrowth principles the eco-villages apply to their projects. By looking on the website of the initiatives, and searching other documents with information on the projects, it was researched what their core values are, what decision-making model they use, what kind of facilities they have and what kind of activities they offer for their inhabitants and other interested parties. This information helped to create an image of the different initiatives and to already provide some similarities and differences between the projects, before starting with the interviews.

Chapter 3.3.2 – Field visits

Besides searching on the internet for information and pictures of the initiatives, I decided to visit some of the eco-villages that were selected for the research, to get a feel of how these projects work and what they look like in real life. The other reason for these visits was that I could do some of the interviews face-to-face. In the end, I visited Aardehuizen and IEWAN Strowijk. For both initiatives I received some sort of tour, providing more clarity about the project, the residents and the workings of the project. At IEWAN I could join a pre-organized tour through the initiative that showed all the aspects of the initiative. Because of these visits, the eco-villages became more tangible which gave me a better grasp of the topic of eco-villages in the Netherlands. Unfortunately, I was unable to visit all of the initiatives, but for eco-village Zuiderveld I received an online tour through the initiative.

Chapter 3.3.3 – Semi-structured interviews

The fourth part of the research was collecting primary data by conducting semi-structured interviews with residents of the selected eco-village initiatives. Amongst these residents were also some initiators of the projects. Semi-structured interviews are a qualitative data collection method that makes use of a blend of pre-determined structured and spontaneous unstructured interview questions (Delve, 2022). Semi-structured interviews allow the interviewer to be focused on the topic of interest while still being able to explore relevant ideas that come up during the interview (Delve, 2022). This is essential as the experiences of inhabitants are often tacit and intertwined, and not organized in clear-cut categories that could be asked and identified by a fully structured interview. The open character of the interviews allowed for new topics to arise that were not yet thought of when thinking about degrowth and eco-villages. When looking at people's experiences, this is not something that you can predict and pre-determine, which is why it is best to conduct semi-structured interviews instead of fully structured interviews.

The participants of the interviews were selected by both purposive sampling and convenience sampling. With purposive sampling, researchers intentionally select participants who are knowledgeable about the phenomenon being studied (Gill, 2020), in this case, both initiators and "regular" residents of the chosen initiatives. Contact information for each initiative was found on the websites that were found during the website analysis. An email was sent to all of the initiatives containing a request to do an interview on the subject. The email specifically requested to speak with both an initiator and "regular" residents of the project to get more diverse experiences and a wider image of the initiatives. However, as a researcher, I did not have an influence on who exactly from the eco-village was available for an interview. Therefore, a convenience sampling method was also used.

Convenience sampling is when potential participants volunteer to participate in the research (Gill, 2020).

An interview guide was created containing a structured set of open-ended interview questions that were asked during the interviews. The interview guide can be found in Appendix 1. The questions were structured in 4 different sections, based on degrowth principles found in the literature: ecological sustainability, social aspects, autonomy and affordability.

A recording of the interviews was made using the recording function on a mobile phone or laptop. The interviews lasted between 25-60 minutes. All the interviews were done in Dutch, because of the Dutch nationality of all the participants. A total of 9 interviews were conducted, amongst which 6 were conducted via video calls due to the long travelling time towards the location of the initiatives and 3 of them were done face-to-face. The respondents were asked to sign a consent form before the interview. The consent form stated that the interview would be recorded, that the content of the interview was going to be used in writing this thesis, and that they would be anonymous in the thesis.

Table 4 provides information on the respondents their gender, role, the initiative in which they live and whether the interview was conducted face-to-face or online. The respondents will remain anonymous in this research and have therefore received a number.

Respondents	Gender	Ecovillage	Role	Location
Respondent 1	Male	Vereniging Aardehuis	Initiator and resident	Face-to-face
Respondent 2	Male	Vereniging Aardehuis	Resident	Face-to-face
Respondent 3	Female	Vereniging Aardehuis	Resident	Online
Respondent 4	Female	IEWAN Strowijk	Initiator and resident	Online
Respondent 5	Female	IEWAN Strowijk	Resident	Face-to-face
Respondent 6	Male	Zuiderveld	Resident	Online
Respondent 7	Female	Zuiderveld	Resident	Online
Respondent 8	Male	Bwwb	Resident	Online
Respondent 9	Male	Bwwb	Initiator and resident	Online

Table 4: respondent characteristics interviews

Chapter 3.3.4 – Focus group

The final research method of this research was collecting primary data by organizing a focus group meeting with employees of social housing corporations. A focus group is “a group of people, usually

between 6 and 12, who meet in an informal setting to talk about a particular topic that has been set by the researcher. The facilitator keeps the group on topic but is otherwise non-directive, allowing the group to explore the subject from as many angles as they please” (Clifford et al, 2016). Because of the open structure of the discussion, it was possible for participants to fully explore the topic and to share their personal opinions and experiences about the possibility for housing corporations to apply certain degrowth principles to the housing stock. They were not bound by certain limits, but they could freely discuss with each other which provided for interesting insights. The goal of putting together a focus group was not to get conclusive solutions, but to explore certain opportunities, challenges, and systemic barriers for housing corporations in the implementation of degrowth principles.

The participants of the focus group were selected by using both purposive sampling and convenience sampling methods. Purposive sampling was used by sending emails to social housing corporations in and around the region of the city of Groningen, asking if there were employees willing to join the focus group meeting, specifically employees who focus on the sustainability of the housing stock of the corporations. The email included a link to a website that registers people’s availability for certain dates, this website is called datumprikker.nl. This resulted in 5 participants. After that emails were sent to other possible housing corporations that did not join yet. Eventually, a total of 7 people applied for the focus group. Similar to the interviews, convenience sampling was also used. Besides requesting employees from specific branches of the corporations, I did not have an influence on who was available to join the focus group. For the actual focus group meeting, 6 of the 7 people who applied were able to attend. Table 5 below presents information on the gender and the housing corporation that the participant is working for. Just as with the interviews, the respondents remain anonymous.

Respondents	Gender	Housing corporation
Respondent 1	Male	Actium
Respondent 2	Male	Lefier
Respondent 3	Male	Accolade
Respondent 4	Female	Accolade
Respondent 5	Male	Wierden en Borgen
Respondent 6	Female	Groninger Huis

Table 5: respondent characteristics focus group

The focus group session was held in a faculty room located in a campus building of the University of Groningen, the academy building. It lasted 1,5 hours.

After receiving the guests and serving them some coffee/tea and something to eat, I gave a presentation of around 15 minutes about the topic, the chosen eco-villages, and my preliminary results. After the presentation, the participants were posed with 4 statements that were derived from the results of the interviews with the eco-village initiatives. After presenting one of the statements, the group was given the room to participate in a discussion on the subject and were able to give their own viewpoints and opinions on the matter. This discussion was recorded using a recording device. My role as a researcher was simply to be the facilitator, this meant giving the statements and providing the group with some direction on what to discuss. However, I did not participate in the discussion. The focus group discussion was held in Dutch, because of the Dutch nationality of all the participants. Before starting with the statement section of the day, participants were asked for consent.

Chapter 3.4 – Data analysis

After collecting the data, a data analysis was performed. Different analysis methods were used for the separate methods used in this research.

Chapter 3.4.1 – Semi-structured interviews

Transcriptions were made by using audio recordings of the interviews. The purpose of these transcriptions was to make it easier to analyse the interviews. The transcriptions were made using the transcription function on Microsoft Word. The transcripts were then coded using the coding programme ATLAS.ti. Coding is generally used to attach meaning to separate pieces of data (Punch, 2005). Coding makes analysing the interviews easier since it adds labels to certain pieces of text. These labels make it easier to read through the interviews and make sense of them. It gives a clearer overview of the patterns within the data.

For the analysis of the transcripts, a combination of deductive and inductive coding was used. A coding scheme with a pre-determined set of codes was created based on certain things that stood out during the interviews (deductive coding) and new codes were added to the scheme during the process of analysis (inductive coding). With deductive coding, you start with a set of predetermined codes and then find sections that fit those codes (Saldaña, 2016). With inductive coding, you start with no codes and develop codes as you analyse the dataset (Saldaña, 2016). The codes that were created and used in the analysis process can be found in Appendix 6.

Chapter 3.4.2 – Focus group

The first step in analysing the focus-group data was transcribing the discussion by using the transcription function on Microsoft Word. The focus group session was audio-recorded to make the

transcribing easier. After transcribing, the accuracy and quality of the script was checked. Then the transcript was coded with ATLAS.TI by performing a thematic analysis with inductive codes in order to identify certain reoccurring themes, patterns, and opinions. Because of the chaotic character of the discussion and the wide variety of opinions given, looking for certain overarching themes within the transcription gave a clearer image than just applying separate codes to the pieces of data. Inductive codes were clustered together in themes to get more clarity about overall topics, patterns etc. By doing a thematic analysis, it was easier to find links between the different topics. Certain challenges and systemic barriers that were coherent with the challenges and barriers mentioned for another statement. The coding scheme resulting from the thematic analysis can be found in Appendix 6.

Chapter 3.5 – Ethical considerations

With qualitative research such as interviews and focus groups, ethical considerations have to be considered. Throughout the data collection process, confidentiality was assured to the participants. Participants were given a consent form which they had to fill in before the interview. Participants of the focus group were asked for consent face-to-face. By signing and agreeing to the consent form, they, for example, stated that they agreed with the interview being recorded, that the obtained data would be used in the thesis and that they could withdraw from the interview at any time. Because of the sensitive information that could be provided during the interview, the anonymity of the interviewees was also guaranteed. The consent form can be found in Appendix 2.

Chapter 4 – Eco-villages and their application of degrowth principles in practice

This chapter will answer the following sub-questions:

1. *How do eco-villages in the Netherlands adopt degrowth principles in their initiative?*
2. *What opportunities and barriers do these eco-village initiatives face in adopting those principles?*

The results from the interviews have been structured according to the questions in the interview guide. Results related to 4 degrowth principles will be presented: ecological sustainability, social aspects, autonomy and affordability. Opportunities, practical challenges and barriers that the initiatives faced with regard to these 4 topics will be described.

Chapter 4.1 – How ecovillages in practice deviate from theory.

The first general result from the interviews is that the studied eco-villages differ substantially from how eco-villages are defined in the literature. One of the previously given definitions for eco-villages was “small-scale, decentralized, self-contained human settlements” (Xue, 2022). In reality, the studied eco-villages were never fully self-containing settlements, which is in line with the described barrier for self-sufficiency in the literature. They are still reliant on facilities outside of the “village”.

Hausmann (2019) stated that eco-villages usually strive for self-sufficiency in energy, food and the localization of economic activities.

All the selected eco-village initiatives mentioned that they had self-sufficiency in mind. Food production and supply was one of these areas where self-sufficiency was attempted by growing their own food (R2, R6, R8), or by having a VOKO (food cooperative) inside of the village that offers a wide variety of different products (R4, R7). However, full self-sufficiency in food was not achieved by the eco-villages. Self-sufficiency in energy appeared to be more successful. Aardehuizen managed to build houses that are completely self-sufficient, with regard to energy, water, sewage (R1, R2). They also have *“238 solar panels on our carport, which provides us with enough power for the whole neighbourhood”* (R2). The other initiatives also strive for a level of self-sufficiency with regards to energy, but did not manage full self-sufficiency, which also wasn't the goal for most of them. Something that all the initiatives did manage to achieve was self-sufficiency with their sewage system. They all had a system that purifies their wastewater, which could then be recycled.

Another characteristic of the eco-village initiatives that deviates from theory is that they are not fully decentralized and alone standing communities. They are still connected to existing urban structures. Most of them could better be categorized as sustainable living communities that are more similar to a neighbourhood than to an actual village. All (except Bwwb) are registered as eco-villages at GEN-NL, but they do not resemble actual villages. Thus, while practising a different style of dwelling, the projects are small in scale and very much embedded in the wider urban structure.

Chapter 4.2 – Ecological sustainability

In general, it became clear that the initiatives are ambitious when it comes to sustainable building and living. The selected eco-villages provide several opportunities for residents to live in an ecologically sustainable way. These initiatives can also serve as an example for others about what is possible with regard to ecological sustainability and its implementation in housing development and human settlements. However, they also faced several challenges with regard to their goal of creating an ecologically sustainable community.

Chapter 4.2.1 - Opportunities

The initiatives have looked at and applied ecological sustainability in all areas: building with sustainable materials, shared facilities, shared cars, sustainable energy provision, proper isolation, sustainable way of water purification, providing enough green on the terrain. This result is similar to what is found in the literature about eco-villages and their aim for ecological sustainability.

Using **sustainable (and often recyclable) materials** was something that was a priority for the initiatives. In the case of Aardehuizen, they managed to achieve the most in the field of ecological sustainability compared to the other initiatives. This is linked to the fact that they consist of owner-occupied houses and had full freedom with regard to the design of their initiative. Their houses are completely sustainable and completely recyclable (R2), by using for example loam and recyclable wood. The other initiatives also looked at ecological materials as much as possible. For example, cotton, specifically used denim pants, was used as isolation material (R7, R8). In the case of IEWAN, straw bales were added inside the walls for isolation purposes (R4, R5). Another example is sustainable wood that was used for the exterior of the houses (R4, R5, R6, R8).

One of the things that were prioritized with the building of their houses was **good isolation**, with the use of sustainable isolation materials. Because of this energy use (and also energy costs) for everyone can be much lower than in normal housing projects. **Sustainable energy use** was a goal in itself for the initiatives, which is why for most of the houses solar panels were placed on the roof (R2, R4, R6, R7, R9), and why much consideration is given to sustainable water collection and purification within the initiatives (R4, R5, R6, R8).

Shared facilities are another important characteristic of the initiatives. Besides being part of the social aspects of these communities, shared facilities are also part of an ecologically sustainable way of life. By sharing certain facilities and products, they can have quite a big ecological effect while doing things that are relatively small (R7). *“We make it as easy as possible to live here with a small ecological footprint, by living compactly, sharing facilities, sharing other things.”* (R5).

The abovementioned examples are only some of the sustainable practices that are deployed in the projects and explained during the interviews. The general result that came from all the interviews is that the initiatives are all successful in the implementation of certain ecologically sustainable measures and that they provide plenty of opportunities for an ecologically sustainable way of living. This is in line with what was mentioned in the literature about the general success of ecologically sustainable measures in eco-villages (Kirby, 2003).

Chapter 4.2.2 – Practical challenges

Implementing ecologically sustainable measures into the initiatives came with a variety of practical challenges. First of all, **sustainability and sustainable building aren't**, and back then especially, **the mainstream** (R2). People, also builders, need to get used to this new way of building, this building with sustainable materials. (R6). Convincing builders and contractors who are not used to building with sustainable materials or sustainable options costs a lot of time and energy (R4). For the social rental projects, discussions also needed to be held with the housing corporation, which was also not always easy (R4, R6, R7). Because of this collaboration, there were limits to the degree of sustainability that could be achieved (R7).

Convincing people was not the only challenge that the initiatives faced with regard to the implementation of sustainable materials. Sometimes, choices and concessions had to be made because they could simply not afford certain sustainable materials. **Sustainable materials are a lot more expensive**, which did not always fit within the budget (R1, R3, R9). On the one hand, they want everything as ecological as possible, with good building materials, but on the other hand, that also costs a lot of money. So, some choices needed to be made (R1, R6, R9). *“For example, with the isolation of the roofs, we wanted to implement all-natural materials. But that turned out to be 10 times more expensive than if we chose styrofoam. So, we had to make that choice.”* (R3).

What we can take away from this section is that, even though the eco-villages are quite successful in implementing sustainable practices in their initiatives, they came across several challenges. Namely, the transition towards more sustainability is something new and that takes some getting used to, people need some convincing. Besides that, sustainable materials appear to be more expensive which lead to certain choices.

Chapter 4.3 – Social aspects

The results show that the selected eco-villages provide opportunities for people to live in a place where the community and community building are of great importance. Wanting to live in an ecologically sustainable way is often referred to as an important reason for wanting to live in an eco-village. However, the interviews have shown that an affinity for community life is also seen as an important reason, for some even the primary reason (R5, R7, R8, R9). *“Some people just think it is nice to live so closely together with neighbours.”* (R9). The interview results show that initiatives provide plenty of opportunities for this need for community life. The physical, organisational, and social structure of the initiatives ensures a lot of contact between inhabitants. However, the social part of the eco-village is also paired with some challenges.

Chapter 4.3.1 - Opportunities

As mentioned before in chapter 2.3, the literature states that the social cohesion within an eco-village and the accompanying community-building practices are of great importance. Building communal buildings, having shared spaces and facilities and participating in certain activities have been mentioned as ways to achieve this social cohesion and community building (Holtzman, 2014). The interview results show that this is exactly what is happening within the initiatives.

The results show that the initiatives provide a wide variety of opportunities for the **sharing of facilities and other things**. Sharing appeared to be an important topic in general. Loaning things from each other is something that is very normal and common (R3, R7). *“We have a giveaway app. For example, if I cooked, and half of it is left over, I can put that in the app. And then someone can come over with their plate. A lot of people wouldn’t understand that, but it is very nice” (R6).*

On top of that, all of the initiatives have a shared garden/shared green and some sort of shared building, which can be used for a wide variety of purposes. For example, for having parties, meetings and other activities (R2, R4, R8). These shared buildings often include other facilities that can be used by everyone living in the initiative, such as a luxurious bathroom with a bath (R4, R7), a shared living room (R5) or shared kitchen (R8), guestrooms and shared washing machines (R4, R5). Besides a common building with shared facilities, there are some other facilities that are shared by residents, such as a shared workplace with many tools included (R4, R5, R6, R8, R9) and a couple of shared cars (R2, R6, R8). Having shared spaces/buildings and sharing certain facilities provides opportunities for a lot of contact between residents. It also gives residents opportunities to use certain facilities that they could normally not afford. *We are currently building a common bathroom with sauna and a bath. It’s a bathroom for everyone, but how often do you use something like that? We could never have something like that by ourselves, together we have way more this way. – (R7)*

As mentioned before, participating in **shared activities** is also something that could help community building and increase social cohesion (Holtzman, 2014). Within the initiatives, both activities with a mandatory character and voluntary activities are being organised. The mandatory activities, which are part of the decision-making model that will be elaborated on in Chapter 4.4, come in the form of working group meetings and general membership meetings (R3, R5, R7, R8). IEWAN also has a day, once a month, where most inhabitants participate in working on certain necessary chores within the initiative (R4, R5). These sorts of activities ensure a lot and regular contact between inhabitants. Besides these more practical activities, there are also a wide variety of social activities that can be- and are initiated by inhabitants. These activities can range from eating together (R3, R6, R7) to movie nights (R4, R5) to dancing classes (R6) to certain celebrations and parties (R8, R9). *“We have all kinds of social things and activities, it is never the case that everyone shows up, but they are easy and accessible ways*

to meet each other.” (R4). All of these social activities provide inhabitants with opportunities to meet each other on a regular basis, which in turn could lead to more community building and a bigger feeling of community. Not everyone is as interested in partaking in these activities as others, but the option is given (R3).

Besides these shared spaces, facilities and activities, there was something else that was mentioned by respondents from Aardehuizen as being important for community building. Namely, the fact that they **spend so much time together during the preparation, discussion and building period** (R1, R2, R3). Because of this, you already know the people that you live next to, which is a lot different than living in a normal neighbourhood (R3). *“The fact that we built everything together and had so many meetings, is important for the social aspect. We have shared joys and sorrows, which leads to us having created a tight community who can take a beating” (R1).* Inhabitants at IEWAN also participated in the building process of their initiative (R5). Helping to build your own place of residence can be very good for a sense of community.

In general, participants have mentioned that they value the social part of the eco-villages highly. *“I really like the social part, because if I feel like having contact, there is always somebody there. There is always help and contact.” (R3).* It is not the case that you always have to spend time together or partake in activities, but if you feel the need for some contact and conviviality, or you need some help, there are always possibilities (R1, R3, R7, R9). By living in such a community, inhabitants have managed to create their own social network and safety net (R9).

We can thus conclude that the eco-villages contain various social aspects, many of which are conform to what is found in the literature with regards to community building. Namely, the eco-villages give many opportunities for sharing and certain social activities. Something else that was not mentioned in the literature is that the preparation and building period of these eco-villages can be of great importance for community building. This is an interesting insight when looking at community building for eco-villages. In general, participants appear to highly appreciate this social part of eco-village.

Chapter 4.3.2 – Practical challenges

The results also show that creating and living in such a social community does not come without its share of challenges. This is consistent with what has been found in the literature (chapter 2.3), where it was noted that the social aspects of eco-villages seem to be the most challenging (Bertrand, 2023;

Kirby, 2003). *“It appears that with this sort of eco-living initiatives, around 90% implodes or explodes sooner or later, because they did not sufficiently safeguard that social aspect” (R1).*

The first challenge that arises with the social aspect is that **it is expected that you spend a lot of time and energy on the initiative**. The biggest part of this is because of the shared decision-making model that these initiatives uphold, which will be elaborated on in Chapter 4.4. Not everyone is able to spend so much time on the initiative (R6, R7). For example, in the eco-village Zuiderveld, it is expected that you spend 4 to 8 hours a week on the community. Not everyone is able to do this, which forms a challenge for the initiative (R6). *“People need to work in order to pay their rent, so you can’t always put a lot of time in the eco-village. So that causes some tensions” (R7).*

Another significant challenge that was mentioned in the interviews is that **living and working with people with different values and opinions is difficult**. Living in such a community comes hand in hand with close contact with the people that live there, and that can make it really complex sometimes (R7). You have to take each other into account a lot, and you have to accept a lot (R6). Which does not always go smoothly (R8). The trick is to have a common denominator with all those different people, individuals, and opinions (R3). *“Of course, we had a common dream when we decided to live in the eco-village. But when actually living there, you find out how different everyone is, and that people’s norms and values are different from each other.” (R8).* Some people simply do not care as much as others, but that is unavoidable (R9).

So, it can be concluded from this section that creating and sustaining such a community is not that simple. You need people who are willing to spend time and energy on the initiative, and you have to accept that not everyone is the same. These are things to consider when thinking about joining an eco-village community.

Chapter 4.4 – Autonomy

In general, the results show that the organisational set-up of the eco-villages clearly provides residents with more opportunities for autonomy than residents in normal housing projects would have. However, this autonomy does not come without its share of challenges.

Chapter 4.4.1 – Opportunities

As mentioned before in Chapter 2.3, the literature states that, for eco-villages, a local way of self-governance and autonomy is important (Xue, 2014). According to GEN Europe, a commonly used decision-making model for eco-villages is that of sociocracy. This claim is supported by the interview

results that show that all of the initiatives make use of a **sociocracy decision-making model** based on consent. IEWAN calls it a consensus decision-making model (R4, R5), but it comes down to the same idea. Everyone needs to either agree with the decision or don't have a major objection, they all have to give consent for decisions being made (R3, R7, R8, R9). Because of their use of sociocracy, the decision-making process of the initiatives is based on layers. *"There are different workgroups that do research and make decisions about the separate topics. If the workgroups can't decide they ask that question in the general members meetings. But in general, the workgroup decides and then asks for everyone's consent". (R3)*. This system has proven to be successful for the initiatives. *"It has prevented people from leaving with bad blood and arguments" (R1)*. This decision-making model gives residents opportunities to voice their opinions and to have a significant influence on the place that they live in.

Another way in which the initiatives are autonomous is in the **allocation process of new residents**. There is a difference here between the initiatives that started in collaboration with housing corporations (IEWAN & Zuiderveld) and the initiatives that have owner-occupied houses (Aardehuizen & Bwwb). The social rental projects have full collective autonomy when choosing new residents, even though the houses are in possession of the housing corporation (R4, R5, R6). For the owner-occupied projects, this is different. *"We can't collectively decide because the house is property of the owner. That person can decide who to sell it to. But on the other hand, you don't really have a nice life if you don't fit in here." (R2)*. For Bwwb this is also the case, but in order for new residents to live there they first have to be members of the Bwwb owner association and agree to a set of terms, also about the living conditions (R9), which gives opportunities for some sort of selection process.

The importance of choosing your own residents in such a project was agreed upon by all participants. It is important for the survival of the project to have **like-minded people**, that really choose to live in that particular way (R2, R4). If the residents are too different, such an initiative won't work (R2). *"People really need to want to live like this. Because there is a lot that we have to do in order to keep all of this going under our own management." (R4)*.

So, having a high level of autonomy appears to be one of the important success factors of these initiatives. With their consent-based decision-making model, and their ability to choose new residents, the residents of these eco-village projects have significantly more autonomy than residents in a regular housing project.

Chapter 4.4.2 – Practical challenges

Achieving and having this type of autonomy does not come without its share of challenges. First of all, their decision-making model based on consent causes some problems. *"We have made it difficult for ourselves by deciding everything through sociocracy. The advantage is, we all agree. The disadvantage*

*is, we all need to come to an agreement.” (R2). **Discussing and having to agree with so many people can be difficult**, especially in discussions, since everyone can have a say about everything (R6, R7, R8). Coming to an agreement therefore costs a lot of time for discussing and meeting. This has regularly caused some conflicts (R7). This challenge with autonomy is related to the similar challenge faced with the social aspects of the eco-villages. Inhabitants are expected to spend a significant amount of time on the initiative, but not everyone is able to do this (R6, R7). This is something that you need to be prepared for when joining such an initiative. It provides you with a lot of opportunities, but it also asks a lot from you. Especially the starting and building phase of the initiatives have asked a lot from residents. The design and building of such a project are a long process that asks for time, energy and perseverance (R2, R4, R8). *“During the period before the building, and during the building process, people that were in a workgroup had to meet multiple times a week. And that for 2 to 3 consecutive years, that is bizarre.” (R8).**

However, it was also mentioned during the interviews, that if you know what to do and which pitfalls to avoid, the process could possibly be sped up and this specific challenge could partially be overcome. Therefore, current initiatives could pose as an example for others (R5) so that new initiatives know what to do and what to look out for.

A second challenge that is faced with this autonomy is **communication and conflict management**. This is something that could have been done better (R4, R8). *“During that sociocratic process, we could have used more guidance, instead of trying to figure it all out by ourselves.” (R8).* The participants from IEWAN also pointed out that conflict management is something that they struggled with. They have currently started with conflict management training (R5). This idea of participating in training for communication and conflict management is something that the participants of Zuiderveld also agreed with. They already started following training at the beginning of the project. *“We did some community building trainings with the support of GEN-NL. Those trainings focus on what is a community, what do I expect? And it is all based on non-violent communication.”(R7).* The respondents advise people who want to start a similar initiative to also follow these types of training to avoid these challenges. This advice for following training is also applicable to the second challenge faced with the social aspects of the eco-villages.

What we can conclude from this section is that in order to be successful with autonomy in your initiative, there are a few challenges to consider and overcome. First of all, people need to be aware of the amount of time and energy that is asked for these types of projects, since everything needs to be decided and agreed upon by everyone. Secondly, knowing how to deal with conflicts and how to properly communicate with each other is something that is essential for these types of projects. These

are some points that could be a good addition to existing literature on autonomy and eco-villages or other co-housing projects.

Chapter 4.5 – Affordability

The results from the interview generally show that affordability, and specifically affordability for lower incomes, was something that was on the agenda for all of the initiatives. Eco-villages can provide opportunities for lower-income people to also live in a sustainable community. However, some considerable challenges were faced on this topic. This is a surprising result since a direct link between eco-villages and affordability for lower incomes is missing in the literature. This research can therefore be a good addition to the existing literature.

Chapter 4.5.1 – Opportunities

The first general point that came out of the interviews with regard to affordability is that **you simply need money**. It does not matter where you get it from, external financing or personal investment, you just need quite some money in order to make such a project work (R7, R9). Funding is a prerequisite for the opportunity to start an eco-village project.

The initiatives IEWAN and Zuiderveld got their financing through a **collaboration with a housing corporation**, which in turn provided opportunities for people with a lower income to live in such an ecologically sustainable community. As mentioned in Chapter 2.2.2, housing corporations manage the social housing supply in the Netherlands, which is meant for people with a lower income. The results show that all of the initiatives had the initial plan to make their houses affordable for lower incomes, however not all of them succeeded. IEWAN and Zuiderveld did achieve this goal by implementing social housing in their project. *“We knew from the start that we wanted affordable houses. We specifically wanted social rental houses, no personal possessions.” (R4).*

“The housing corporation had some space for a green and social project. And the municipality thought that sounded nice, so they agreed.” (R7).

Another opportunity for an affordable eco-village project that was mentioned in the interviews is that **residents and volunteers help with the building of the project**, in order to keep construction and labour costs low. Residents from both Aardehuizen and IEWAN participated in the building of their initiatives. They did this together with a group of volunteers from outside the project (R1, R5). Aardehuizen took this idea the furthest. The residents from Aardehuizen built their entire project themselves, together with around 2000 volunteers. *“As residents, we worked 6 days a week for a period of 3,5 years. In the first half, we hired professionals to function as construction supervisor and building*

director to help with the logistic process. But for the rest we did everything ourselves.” (R1). The residents of IEWAN did have a contractor who took care of the majority of the building. However, they did help with an important part of the project. *“We saved a lot of money by helping in the building process with both residents and volunteers. We placed the strawbales in the walls and polished the walls with loam.”* (R5).

Besides implementing social housing and participating in the building process, costs were also attempted to stay low by for example investing in good isolation (R1, R3), placing solar panels on the roofs (R2, R9) and sustainable heating systems (R1, R2, R9). *“We have the most efficient heating system that you can have. The past year we only burned 1 m³ of wood, and we used that to heat the entire house. So that costs almost nothing. And that compared to all those people with high energy bills these days. It feels almost embarrassing to say that we pay almost nothing.”* (P1). In the beginning, such investments might cost quite some money, but in the end, you easily earn that back and then it just becomes more affordable (R9). The eco-village looks at the possible future returns of their investments. This is similar to what was found in the literature, in the beginning, it might be more expensive but eventually, the monthly costs are lower (Griffith et al., 2022). Because of these kinds of things, eco-villages can provide people with the opportunity to live a more affordable life.

Finally, similar to what is found in the literature, the results show that **sharing**, besides being environmentally friendly, is also used as a way to save costs. One particular thing that was mentioned in the interviews, besides things such as shared working tools or shared cars, is a VOKO (food cooperative) which was also named in Chapter 4.1. A VOKO in the initiatives is a small “supermarket” which offers a wide variety of biological products (R4, R6, R7), but then for a lower price than if you buy it in the shop (R7). *“It is like 30% or 35% cheaper than in the normal biological shops, which makes it a lot more accessible for people with low incomes.”* (R7). This initiative does not only provide residents with affordable opportunities, but also people living in the adjacent areas since they are also free to use the VOKO (R4).

So, the conclusion from this chapter is that acquiring funding in some type of way appears to be necessary for the success of eco-villages. Whether it is with personal investments, or through external financing from for example housing corporations, you just need money. With regards to the affordability of the project, there are certain things that can be done to lower costs, such as helping in the building process, proper isolation or solar panels and also the sharing of certain products. These are all things that can keep living costs low within the eco-villages.

Chapter 4.5.2 – Practical challenges

The affordability of eco-villages, in general, and for people with a lower income is also paired with some challenges. The biggest challenge that was faced with regards to affordability is the fact that **sustainable materials are expensive**, which has already been described in chapter 4.2.2. The aspiration of the initiatives was to make their project as ecologically sustainable as possible, but they did have money to think about. *“Because we had to work with tight budgets, but we did make expensive choices by going for the sustainable materials instead of the normal ones, the project was in danger of failing.” (R8).* As mentioned in the previous chapter, you simply need money. If that’s not there, or if it is not enough, the chance of the project failing is way higher.

Besides materials, **a housing project simply costs a lot of money**. There are a lot of things to think about. For example, you have to buy land for your initiative (R1, R8, R9), which often is quite expensive, a contractor (in case that was used) needs to be paid, and in the case of Aardehuizen a process guide since they wanted to build everything themselves (R1, R3). *“We were very lucky that we could buy this plot of land for a reasonable price from the municipality at a time that housing prices started to go up again. Otherwise, we probably wouldn’t have been able to afford it.” (R8).*

So, eco-villages face some practical challenges with regard to the affordability of their project. Housing projects cost a lot of money, especially when you want to create an ecologically sustainable project, since sustainable materials are expensive. Having enough money is essential for these kinds of projects to succeed.

Chapter 4.6 describes the affordability of such a housing project without external finances as a serious barrier faced by eco-villages.

Chapter 4.6 – Additional findings

This chapter describes two relevant findings that come as an addition to what is already described above. First, the apparent educational role of eco-villages is described, which is a finding that did not fit within 1 of the 4 principles discussed above but is still relevant to mention. After that, as an addition to the opportunities and practical challenges described above, some systemic barriers faced by eco-villages will be presented.

Chapter 4.6.1 – Additional findings: Educating others

Something else that is important to mention is the **educational role** that eco-villages can play for the rest of society. Something that came forward from the interviews is that educating others is an

important aim for these initiatives. The eco-villages are willing to help others with the start of their own project and are open to providing them with necessary information and certain mistakes that need to be avoided (R2, R8). *“One of our pillars is to be open and educative. So, we invite people over to inspire them and to show them how you can set something like this up” (R4)*. The existing eco-villages can pose as a good example of how it could be. Of course, there are things that they could have done differently, but others can learn from those mistakes (R8). Besides inspiring civilians, the eco-villages also aim to inspire organisations such as housing corporations and municipalities, in order to convince them to consider investing in or approving more of such projects. This aim of educating others is attempted by, for example, hosting tours (R4, R5) or even making an appearance on informative TV shows (R8). Currently, inspiring others already seems to be quite successful, the initiatives already had quite an effect, with other people who decided to start a sustainable project:

“It appears to be quite impressive how many spin-offs have already emerged from our initiatives. And other things have then again emerged from those new projects. All kinds of projects and initiatives focussed on consuming less, being more efficient and sustainable with energy and many more.” (R1)

Or housing corporations that got inspired to invest in more sustainable community projects.

“Just in this neighbourhood, 3 new projects were already realised after us, all financed by the same housing corporation as us. The housing corporation said that they found it tricky in the beginning, but in the end, they think it is really interesting and they want to do this more often.” (R4)

This shows that eco-villages have the potential to inspire others and possibly bring about some positive change.

Chapter 4.6.2 – Systemic barriers for eco-villages

In the chapters above, opportunities and practical challenges for the eco-villages have been described. However, if we zoom out and look at the system that these eco-villages operate in, we can see that there are also a number of systemic barriers that these eco-villages face. Systemic barriers therefore refer to reoccurring barriers faced within the wider context of the spatial planning system. With this chapter, some awareness can be created for people who are interested in starting a similar project, so that they know which systemic barriers they will probably face.

In this chapter, the results from the interviews are compared with the barriers that are described in the literature. Are they the same or do the actual eco-villages experience different barriers?

Ecological sustainability

In the literature, a barrier that was mentioned with regard to ecological sustainability was that of increased mobility. During the interviews, this was not something that the respondents considered when thinking about sustainability. They mostly thought about measures they took within their initiative, instead of thinking about the external ecological effects of their eco-village.

A barrier that did arise in the initiatives that was not mentioned in Chapter 2.3 is that with the choice for sustainable materials, **it was simply not always possible because of practical or regulatory reasons**. Sometimes, less sustainable materials had to be used because of considerations such as fire safety (R5), the danger of sinking due to the type of subsoil, which led to the need for a concrete foundation (R1), or the fact that certain local materials were not easily accessible at that time (R9). *“For some parts of the building, we had to use concrete because we wanted to build multiple stories, and otherwise we would get swaying buildings. But we did find concrete that was recyclable and as sustainable as possible.”* (R5) and *“Because of the peat layer that we had to build on, our relatively heavy houses would start to sink if we didn’t build with the traditional concrete pile foundation to support the houses. So that was very disappointing.”* (R1)

This problem is not something that you can easily fix. This is the kind of barrier that all eco-villages could encounter when entering into their building process. Sometimes there are some unavoidable choices that need to be made.

Social aspects

With the social aspects, the barrier that was described in the literature has been placed in the practical challenges chapter, since this is something that could be overcome with the right preparation or training. In the interviews, no actual systemic barriers were named for the social aspects of the eco-villages.

Autonomy

In the literature, a barrier that was given with regard to autonomy in eco-villages is the risk of **exclusion**. For the respondents of the interviews, this was not a topic that came to mind when talking about their initiative. Instead, some respondents spoke about the fact that their initiative is quite focused on contributing to the rest of the neighbourhood and the adjacent areas. IEWAN organizes certain activities that are also open for people outside of their initiative, such as music nights and tours (R4, R5), Zuiderveld has a repair café which is also open for people outside of their initiative (R6) and Bwwb takes this connection with the neighbourhood even further. *“Our neighbourhood is quite socially*

challenged. We always said that we wanted to be open to the surrounding neighbourhood and we also want to contribute. One neighbour does that more than the other, but with our initiative, we make a lot of contributions to social initiatives in this neighbourhood.” (R8). So, instead of talking about exclusion, the respondents spoke about including others in their initiative.

A barrier that was mentioned during the interviews, is that the initiatives faced **long and sometimes difficult discussions with external organizations** such as municipalities. When you decide to build something that doesn't exist yet, something innovative, there is a lot of paperwork that you need to hand in with the municipality, and a lot of discussions to be held (R1). You need to apply for permits for example. Especially with certain things that would normally not be allowed, which can be tricky because you won't always get an exception to the rule. An example of this is the sewer system in Bwwb. *“The municipality wasn't so excited about that idea since our initiative is in the middle of a dense urban area, where your own sewer isn't the usual. The law even says that you have to connect your utilities, including sewage, with the municipality. So, they had to make different rules for us.” (R8).* In their case, they managed to get the permit, but this is something that could pose a serious barrier for eco-villages. Because of certain regulations, they might not be able to achieve everything they want.

Affordability

In chapter 4.5 it was discussed that eco-villages can provide opportunities for people with a lower income to live in an eco-village, by collaborating with a housing corporation. However, this is not always possible, some systemic barriers arise.

The first problem is that **projects with owner-occupied houses are by definition less affordable** than the projects that are financed by a housing corporation since they won't have social housing. External financing can be arranged through other organisations, but when external financing is not an option, personal investments are needed to pay for the project. It is then important to make a good budget plan. However, when aiming for equality in housing supply for lower-income households, a collaboration with a housing corporation is a good option.

There are 2 barriers that arise with this affordability and possible collaboration with housing corporations. First of all, **not everyone is eligible for social housing**. So, creating a whole project consisting of social housing is simply not always possible.

Second of all, **housing corporations must be willing to finance such a project**. As mentioned before, IEWAN and Zuiderveld are projects with social housing. The other 2 projects (Aardehuizen & BwwB) had a similar goal to be affordable for lower-income classes. They therefore wanted to integrate a few social houses into their project, but they encountered certain barriers with housing corporations (R1,

R3, R8). Aardehuizen actually managed to convince a housing corporation to finance the building of 3 social houses in their initiative. However, these were sold later on because of a change of management within the housing corporation, so now they only have owner-occupied houses (R1). Bwwb had a similar goal but could not find a housing corporation willing to participate in the project (R8). Finding a housing corporation to collaborate with can therefore be a significant barrier to the affordability of an eco-village project.

When having to fund the project with personal investments, a new barrier arises. **Not everyone has the money to invest in such a project.** So, when there is no collaboration with an external party it is sometimes impossible to partake in such a project because of a lack of money, especially in the current period with high housing and building costs. Money could therefore form a significant barrier for new initiatives. *“With the current housing prices, I wouldn’t have been able to afford this project, even though I have a full-time job. Back in the day, you could get a mortgage to buy a house, if you had a steady job. Currently, that is not possible anymore which could make it really difficult for new initiatives.” (R9)*

So, in general, it can be concluded from this chapter that, when looking at creating an affordable housing project, it is important to be aware of the barriers that can be faced. Money, as is to be expected, is something that is essential for the survival of such initiatives. You either need personal investments, or you need to arrange external financing, which is not that easy to arrange. This is something to keep in mind when thinking about starting such an initiative, that you need a good plan for the financing.

Chapter 5 – Potentials and pitfalls for take-up of degrowth principles by housing corporations Findings focus group

This chapter will answer the following sub-question:

- *How can these experiences inform the take-up of degrowth principles in social housing developments in the Netherlands?*

As described in the methodology section of this thesis, for this research question, a focus group was put together with employees of Dutch housing corporations. During this meeting, they were presented with 4 different statements. These statements are based on the analysis of the interviews and linked to the degrowth topics:

1. More autonomy for renters in the development and management of social rental projects is desirable (autonomy)
2. New rental homes can be built completely with sustainable materials (ecological sustainability)
3. New social rental construction projects have to make use of shared facilities (social aspects)
4. New social rental construction projects can create more social cohesion by adopting the building structure of a residential community (social aspects)

The topic of affordability has been excluded from the statements since housing corporations are already focussed on affordability with the provision of social housing for lower-income people.

Housing corporations have a unique role in providing affordable housing for people with a lower income, and they have currently received the assignment to make their housing supply more sustainable. Something that fits really well within this assignment for sustainability are eco-villages, since they are a good example of sustainable living practices. Some of the discussed eco-villages were even built in collaboration with a housing corporation which is in line with their current assignment to build more sustainable housing. From the previous chapter, we learned that there is a lot of potential for eco-villages with regard to implementing degrowth principles in their initiative. However, there are also a number of challenges and barriers that were faced.

The following sections will discuss the potential for housing corporations to also adopt these degrowth principles and sustainable practices in their housing supply and will discuss the possible opportunities, challenges and systematic barriers that could arise when wanting to apply these principles on a larger scale. Something to note is that the answers given in the focus group were possibly influenced by the cases of the eco-villages that were presented before the discussion. This chapter will be structured by separately discussing the different principles and statements. Statements 3 & 4 will be discussed together since they both relate to the social aspects mentioned during the interviews and in the literature.

Because of the organic nature of the discussion, between the 6 invited representatives of housing corporations, it was hard to differentiate between the different quotes and who said them, which was also not seen as relevant to the research. This is why the quotes have not been assigned to a specific participant of the focus group.

Chapter 5.1 – More autonomy for renters

When thinking about autonomy, respondents often associated it with community life. They associated it with the type of autonomy that residents from eco-villages have, which had an influence on the opinions they presented. The general takeaway from the discussion is that autonomy in some shape or form can be good, but there are a few factors that make the desirability and feasibility of more autonomy for residents questionable.

Opportunities for autonomy

During the focus group discussion, the participants mostly talked about the feasibility and desirability of more autonomy for renters, instead of talking about actual ways in which residents can be autonomous. However, they did mention some examples of ways in which renters can currently be autonomous with regard to their place of residence.

The autonomy that renters currently have with regard to their place of residence is mostly related to **the design and the interior of the houses**. *“Mostly just about the floorplans. I think that’s where they have the most autonomy. We present them with a few options that they can choose from. They can share their wishes here and there, and we can see what is possible.”* It is a limited kind of autonomy. However, it is also the kind of autonomy that renters seem to prefer, according to the experience of the housing corporations. An example that was given during the discussion was that of a project where renters were asked which topic they would like to have some influence on. The renters said they wanted influence on projects with newly built houses. However, *“you see that the autonomy still remains limited. They prefer having around 3 examples from which they get to choose, instead of us saying here you have a sketchbook, go ahead.”* They are not used to deciding everything for themselves.

However, the housing corporations did see some benefits of the high level of autonomy that eco-villages offer. It could possibly be good for **lower vacancy rates** when residents have autonomy in the allocation of new residents, **a lower rental loss** and a higher **sense of community** which in turn would also be linked to lower vacancy rates. *“I think it is a wonderful example of that eco-village that collectively pays rent. The vacancy rates will undoubtedly be lower, and the loss of rent will be lower too, which are very good starting points for housing corporations. And when for example they have to change their own lightbulbs instead of us having to send someone over.”* These were some examples of autonomy practices in eco-villages that were presented to the focus group participants before the start of the discussion. Because of this presentation given beforehand, they mostly thought about

autonomy in relation to living communities, which did influence their answers. They did however see some advantages in this more extreme kind of autonomy. *“I do see a lot of advantages, but then we do need to know the type of residents that we have. We need to have residents who would like this type of living and who want it.”*

Practical challenges – feasibility

One of the recurring themes during the focus group discussion was that of feasibility. It was discussed whether more autonomy for renters is feasible and whether it could practically work. A few challenges were mentioned with regard to the feasibility of more autonomy.

The first challenges that were discussed are **the rentability and affordability** of the houses when residents get more autonomy. More autonomy in the development of the houses could lead to customization. *“When you start customizing the houses you quickly get to the topic of affordability, since the houses will become more expensive when renters get to personalize them.”* Besides becoming more expensive, rentability also becomes a possible challenge. When you give residents more autonomy and self-management with regard to the houses and they decide to move, you have to find a new resident who has the same wishes. This poses a risk to the rentability of the houses. *“We don’t want to build for vacancy. In the end, that is what it is about.”*

Another challenge that was mentioned is that renters often have a **lack of knowledge** about how the development and management of social rental projects work. *“They just miss the knowledge of what certain decisions would mean for the social rental home”.* One example was given where a housing corporation found a group of people to which they offered maximum participation in the development of new social rental houses. *“On the one hand, it worked quite well, however, on the other hand, it was quite difficult and different than we expected. There was a lack of knowledge with the renters, a lack of experience and vision on how long it would take and the amount of effort that was needed.”* This is similar to what was mentioned during the interviews as a challenge with autonomy within a living community. The results from the interviews showed that it is expected from residents that they spend a significant amount of time on the initiative, but that not everyone is able to do this, and that this is something that you need to be prepared for when joining such an initiative. To avoid this problem, participants of the focus group mentioned that it is important that a level of autonomy like that comes from the renter's own initiative. *“A group of people needs to stand up that takes the initiative themselves. As a housing corporation we can then see what we can facilitate, instead of us looking for a group that wants to have that kind of autonomy.”*

The third challenge that was mentioned is about **enforcement** as a fall-back option. This becomes a topic of concern when giving renters more autonomy. Who is going to enforce when things are not working or being done as they should be? Who will step in if things are not going as planned? *“At the beginning, you can implement an obligation for a certain amount of effort, or you can ask people about their motivations to join such an initiative. However, if people decide not to participate anymore, which role do you have as a housing corporation? How do you enforce if the community does no longer function like you intended?”* This is again related to the point that a high level of autonomy has to come from the initiative of the renters, they have to make the effort. If the housing corporation chooses the renters for such a project, the task of enforcement in case of failure falls on them. While if you allow renters to be in charge of the allocation procedure like in the eco-villages, they themselves have to make sure that everything works and goes well, which can be a great benefit for housing corporations.

Systemic barriers – desirability

During the discussion, the desirability of autonomy was a central theme. Statement 1 assumes that more autonomy for residents of social rental houses is desirable. But **for whom** is it desirable? From the focus group discussion, it became clear that desirability is seen as the biggest barrier to the possible increase of autonomy. The subject of desirability was already mentioned shortly in the opportunities and barriers sections. Not all renters want more autonomy and because of some challenges, the question can be posed whether housing corporations should want more autonomy for residents. It is something new for housing corporations which takes some getting used to. *“It does take some thinking. We are used to first thinking about the house and then about the renter. But in this case, we would first have to know who the renter is.”*

A general agreement between the participants of the focus group was that it is important to know the **target group** that you are building for. *“You need to know what target group you are dealing with, what they find important. After that you can think about giving them more responsibility and autonomy.”* Simply not everyone wants to have a lot of autonomy, which was also shown with an example in the opportunities section. Eco-villages are a special example of an extreme kind of autonomy that is not desirable for everyone. As mentioned before, that kind of autonomy can have benefits, but you need a specific type of people who actually want it and who come up with such an initiative themselves, instead of the housing corporation having to find a group of people. You can't make one decision about the degree of autonomy for everyone, it has to depend on the specific target group, which asks for a different approach than the housing corporations currently follow.

Chapter 5.2 – Building with sustainable materials

Like the eco-villages, the participating housing corporations are actively looking at ecological sustainability for their housing supply. It was even argued that, as a housing corporation, they have the social responsibility to motivate the housing market to build more sustainably: *“I think that we do have that responsibility. Being a big supplier of houses, we have to pose the question about sustainability.”* The housing corporations currently already embrace the assignment that they have received to build more sustainably. They already strive for more sustainability. No new opportunities were discussed in the focus group meeting, which is why there is no opportunities chapter.

However, it was mentioned that there are several challenges and barriers that arise when wanting to (completely) build with sustainable materials, which are described below.

Practical challenges – costs, knowledge and culture

When thinking about (completely) building with sustainable materials, the housing corporations saw several challenges and barriers that currently stand in the way of the sustainability objective.

The initial reaction given by housing corporations was: *“In theory it is possible, but in reality, it is unaffordable.”* The main reason for this claim is that **sustainable materials are expensive**. *“If we want to use more sustainable materials, they generally are more expensive materials.”* This is in line with the challenge that was mentioned by the eco-villages. The eco-villages mentioned that they wanted to build everything as ecologically as possible, but it costs a lot of money which they did not always have, so choices needed to be made. This is currently also what is happening with the housing corporations. They can't afford to build everything with sustainable materials. Besides the high price of sustainable materials, some **indirect costs** were also mentioned when wanting to build sustainably. *“We notice that if we start to build more sustainably, that the housing prices will go up and with that also certain fees that we have to pay.”*

A counterargument that was given said that housing corporations should pay more attention to the **possible future returns**. Building with sustainable materials should be seen as an investment: *“What if we build a house, and when we break it down, we can re-use the same materials in the future? That would more than double the residual value of the residence.”* Housing corporations can learn from eco-villages in this regard. The eco-villages already take possible future returns into regard. However, there are still some restrictive rules which make it difficult to look at future returns. Such restrictive rules will be further discussed in the barrier section of this chapter.

A second challenge that was mentioned is the **limited supply of sustainable materials**, *“is there enough material available? I don’t think so. So, some new rental houses can be built with sustainable materials but not all of them.”* There is not enough available for a complete transition.

Another important challenge, that was also mentioned as a challenge for the eco-villages, is that of a **lack of knowledge**. On the one hand a lack of professional knowledge of external companies such as contractors. *“With for example re-usable materials, there are still a lot of companies that do not know how to process it, and that goes from the architect to the contractor. They all need to be thought about the possibilities.”* But on the other hand, also a lack of knowledge within the housing corporations. They do not have enough knowledge about the application of the sustainable materials and are therefore unable to ask certain critical questions. *“We also need to make a lot of progress internally if we want to be able to properly work with this.”*

This whole transition asks for a **mentality change, a cultural change**, which poses a fourth challenge. *“It asks for a whole new way of thinking, living, dealing with your home. A whole new way of building and dealing with the materials. That will take some time before we are able to do all that properly.”* It is not something that will be achieved from one day to the next. Eco-villages were mentioned as a good example of this attempt of a new mentality, a cultural change. However, it was also said that this kind of thinking as they do in the eco-villages is still unique.

The fifth challenge that was considered is **the risk that comes along with the unfamiliar**. Building everything with sustainable materials at once brings along a big risk, since not much is known about the expiration and operation of these materials. *“For example, in the village Norg, we build 15 houses with sustainable materials, if that goes wrong it doesn’t matter much because it is a limited number of houses. We have to keep thinking about spreading the risk. We would prefer to do everything differently today, but that might not be so smart.”*

So, even though housing corporations see potential in building with sustainable materials, they also identified several challenges that need to be considered: sustainable materials are expensive, indirect costs that arise, limited supply of sustainable materials, lack of knowledge (both internal and external), a mentality change is needed and the risk of the unknown. Because of all of this, building with sustainable materials is not something that can happen from one day to the next.

Systemic barriers – formal and informal norms

Besides all these abovementioned challenges, a serious barrier was also given which further hinders the opportunities for sustainable building. Housing corporations currently face several **restrictive rules**, both formal and informal. This barrier was also mentioned by eco-villages, where they sometimes had to choose for a less sustainable option due to certain regulations related to fire hazard for example.

According to the housing corporations, certain legislation limits the sustainable transition that they want to go through. *“Legislation sometimes lags behind with the development that we could and want to make.”* An example was mentioned before with regard to possible future returns. Other examples of **formal restrictions** are a lack of subsidies for building with sustainable materials and rules with relation to fire hazards or other safety considerations. *“For example, with certain biobased materials, they are good materials, but they are not in our database, so we can’t use them. While if you would just think rationally, you would see that they are good products.”* Besides these formal restrictions, some **informal rules** were also mentioned as a hindrance for possible sustainable development. One example that was given is that wooden buildings in urban areas are not common and not desired. *“I once visited an apartment building that was built completely of wood. I think that is great, but that is generally not seen as appropriate in urban areas. We should learn to look differently at those kinds of things, that for example wooden buildings in urban areas are not strange at all.”*

This shows that the transition towards sustainable building is not something that can just be done. The housing corporations are bound by certain rules and regulations that are embedded into the planning system. Changes are needed here to move forward in the sustainability transition.

Chapter 5.3 – Sharing & building for social cohesion

Statements 3 & 4 are presented together since they both relate to the social aspects of eco-villages and degrowth and appear to share most of the same challenges and barriers. The central theme that was detected during the discussion on these topics was that of desirability, which is similar to what is mentioned in the barrier section of the chapter on autonomy.

Opportunities

The discussion showed that housing corporations see opportunities for the sharing of facilities and for building projects with a more social set-up. This topic was even included in the new performance agreements, where agreements were made about more social living arrangements and where shared facilities such as recreational rooms play a role. The housing corporations even gave examples of some shared facilities that are already implemented in some of their housing complexes, such as shared washrooms, recreational rooms where people can come together with their clubs or for certain activities, charging stations for mobility scooters and some shared scooters. This shows that some first steps have already been made. However, it was mentioned that this is usually meant for certain target groups, students and the elderly. The specific **target group** that is built for is something that is seen as essential by housing corporations when looking at shared facilities and certain social living

arrangements. It is more feasible with the elderly and students than it is with people in other life stages such as families with children. *“We have a lot of student complexes with shared facilities such as shared living rooms, kitchens and washrooms, which are oriented towards meeting. That is also something you see in elder live stages, but the live stages in between that usually don’t want something like that.”* It depends on the goal that you have when building new houses or apartments. *“Is the goal to reduce loneliness, then something like this could work really well, since there is a big focus on meeting people and creating a sense of togetherness.”*

Another opportunity that was mentioned is that of **creating social cohesion** by sharing facilities and creating a specific set-up of residences. *“I think by arranging the building structure in such a way that you have more shared things with each other and more shared spaces, you can stimulate social cohesion. There are always people who cause trouble but in general, it could be a good way.”* Another example that was given is the rule that you can’t put a fence around your garden, this could ensure more contact between neighbours and in turn enhance social cohesion. However, most people still want their privacy, so this could cause disturbances as well. This possibility of nuisance is something that will be elaborated on in the challenges section.

Housing corporations do see some opportunities for certain shared facilities or the fostering of social cohesion, but they also see a variety of challenges and barriers with this topic, especially the desirability is questioned, which is seen as a significant barrier.

Challenges

Central in the discussion was that building these shared facilities, or a certain social set-up is not the problem. It is what comes after that is not as simple and poses a challenge. *“It is not that I think that it is not possible, I just think that in reality, it is more obstinate and difficult.”* The feasibility of this idea in reality is questioned by the housing corporations. The first challenge that is seen is **the risk of nuisance** when people have to do something that they do not want to do. *“I think that 1 person who does not participate can already cause a lot of nuisance and frustration with the rest of the residents.”* When people then start to complain about this to us, this would be a burden for the housing corporations. With this, a similar challenge as with more autonomy arises. Namely, who is going to deal with **enforcement and control** in case things do not go as planned? *“Who will do the enforcement if things do not go well.”* In general, the housing corporations fear that it will give them a bigger responsibility. *“The idea is nice, and the building is not a problem, but your responsibility is not done after that. You need to organise it and that is a challenge with those shared facilities.”*

These challenges pose housing corporations with the question whether these shared facilities and more social arrangement of houses is desirable for them.

Barriers – desirability

Similar to what was discussed in the chapter about more autonomy for renters, **desirability** is the most important theme here. People don't always want shared facilities, or they don't want to live in a place which is set up for regular meetings with other residents. Desirability is therefore seen as the biggest barrier for this topic. For whom is it desirable? The renters, the housing corporations? Not everyone is suited for such a lifestyle. *"The moment that you are actually forced to live a certain lifestyle, it needs to really suit you."* The question was raised during the discussion to what extent you want to take on a steering role as a housing corporation. *"To what extent do you think for your renters, and to what extent do you let them make their own decisions."* The example given in the opportunities section about fences also works well here. *"I think that we have to make sure that we offer a possibility to enhance social cohesion, instead of imposing it. You want to give people the possibility to withdraw in their own place, with privacy."* This is seen as a difficult consideration; how much do you want to steer as a housing corporation?

What was seen as most important with regard to desirability is the **target group**. As mentioned before, the elderly and students are more likely to want shared facilities etc than people in other life stages. It is therefore important to know which target group you are dealing with. *"Every person has their own desires and needs. One person will fit better in a place with shared facilities and social set-up than someone else."* Just as with more autonomy, you need to know if people want something like this. *"We had this project where we looked at the people living there, their lifestyles, what do they find important. On the basis of that we decided what type of house we were going to place there, how to design and position it."* According to the participants of the discussion, the most important question is whether people want it or not, simply not everyone does. This was highlighted by a discussion between 2 participants in the focus group, about an example of a shared washing space for ground-level homes. One of the participants would not mind going outside to an external building for their wash, the other respondents had a completely opposite response *"I'm not going to take my wash across the street to go wash somewhere else, I just won't."* This shows the difficulty of applying these ideas on a larger scale, it is not something that can just be generalized. The housing corporations also asked some of their renters whether or not they would want to share rooms, the answer to this was absolutely not. Of course, this is not the case for everyone, but it does form a significant barrier.

Besides looking at certain target groups, **the type of home** that you are dealing with is also essential according to the corporations. Shared rooms and shared facilities are a lot more feasible in apartment complexes than they would be with ground-level homes. *"If you have an apartment complex, you can just go to the washing room indoors, you don't have to put on your jacket as a figure of speech. It's a lot different."* This type of home that you are dealing with is again linked to life stages and target groups. Families with kids usually live in ground-level homes, they have other needs. *"We asked residents from*

ground-level homes once, what would you want to share? A garden to sit together and which is faced towards the public space was fine, but they did not want to share things. A bicycle shed if they had to, but they don't want to share washing machines."

The general take-away from this section is that the interviewees see possibilities to build shared facilities or a more social arrangement of residences, but that it is not necessarily desirable for housing corporations to do so. That depends on the target group, the life stage of people and the type of home that you are dealing with.

Chapter 5.4 – Possibilities to adopt the idea of eco-villages in their housing supply

When looking at all the opportunities, challenges and barriers described above, what possibilities do housing corporations have to, just as eco-villages, adopt certain degrowth principles in their housing supply?

Ecological sustainability seems to be the most promising principle for housing corporations to apply. It has the biggest potential with regard to options and is also something that housing corporations already aim to improve. However, the housing corporations do expect some resistance, from for example municipalities who have certain limiting regulations, or from builders and contractors who are not yet familiar with building with sustainable materials.

The conclusion that arises here is that it is not something that can be done from one day to the next, it has to be a **step-for-step process**. On the one hand because there are certain risks involved with changing everything at once, and on the other hand because there are still many challenges and certain barriers to overcome. But does everything need to be completely sustainable, or **is more sustainable also good?** *"I think more sustainable instead of completely sustainable is a good one. We need to ask ourselves where to start and where we want to end it, when is it sustainable enough? Eco-villages are seen as a good example but are also seen as an advanced form of this search for sustainability. "Do we suddenly have to make use of wooden funding again? Or can we also use recyclable concrete? Let's just look at it step-by-step."* Housing corporations should therefore decide what, and how big of a role they want to play in the transition towards more sustainability. What level of ambition do they have here and how far do they want to take this ecological sustainability for their housing supply?

The other principles of autonomy and social aspects appear to be more difficult to adopt. The question of desirability forms a significant barrier here. Housing corporations do see some opportunities for more autonomy with regard to the design of the houses. However, a more advanced level of autonomy, as can be found in eco-villages, is questioned. Do renters actually want that, and should housing

corporations want it? Some resistance is seen within the housing corporations. For example, when you start customizing houses to the wishes of renters, the risk of reduced rentability and affordability arises. Housing corporations therefore say that it would technically be possible, but it would be better if renters ask for it on their own initiative, instead of the housing corporation deciding this for people.

The same question of desirability was posed for the shared facilities and the building in a certain social set-up. Opportunities are there, but some resistance is seen among renters and within the housing corporations. When renters don't want to share facilities or don't want to live in a more social set-up some risks arise. Renters can create nuisance that housing corporations have to deal with which would increase their responsibility. The first step should therefore always be, which target group are the housing corporations dealing with, what do these people find important and what do they want. If you know that, then some opportunities for more autonomy, shared facilities or a more social housing arrangement could work.

In general, it seems that if you want to apply the degrowth principles that are also seen in eco-villages to a larger scale, the subject of desirability arises. Does everything need to be as advanced as in the eco-villages? Or is a mild version of it acceptable and more desirable? From a degrowth perspective, you could argue that this is not the case, but it should be considered what works in our current society. With eco-villages, it works because it is on a small scale, with people that have a strong intrinsic motivation. But if you want to apply that on a larger scale with people who don't actually want to live that way, many challenges and barriers might be encountered.

Chapter 6 – Conclusion & discussion

Chapter 6.1 – Conclusion

This research aimed to answer the following research question: *What can social housing corporations learn from eco-villages in adopting degrowth principles?* To answer this question, a multiple case study research was performed using mixed methods. First, in-depth interviews were conducted to find out whether and how eco-villages in the Netherlands apply degrowth principles in their initiatives, and which opportunities, challenges and barriers they faced there. Secondly, by putting together a focus group with employees of Dutch housing corporations, the potentials and pitfalls for the take-up of degrowth principles by housing corporations were researched. This research focussed on 4 different degrowth principles when looking at eco-villages and the possibilities for housing corporations: ecological sustainability, social aspects, autonomy, and affordability.

One of the main aims of eco-villages is to **have a good quality of life without having much impact on the environment** (Juskaite, 2019), which is something that they generally manage to achieve (Kirby, 2003). This is confirmed by the results, which show the eco-village's implementation of, for example, sustainable materials, sustainable energy use and shared facilities. However, because the sustainability transition is relatively new, people (builders, contractors, housing corporations) needed some convincing to, for example, build with sustainable materials. Building with sustainable materials is also more expensive, which meant that sometimes choices needed to be made for less sustainable materials. Additionally, some systemic barriers arise, such as certain restricting regulations (e.g. fire hazard), certain practical restrictions (e.g. the type of sub-soil). Nonetheless, it can be concluded that the eco-villages pose as a good example of what can be achieved with living in an ecologically sustainable way.

Secondly, eco-villages prioritize social aspects such as community building and social cohesion (Holtzman, 2014) by providing shared facilities and organizing diverse activities to promote frequent interactions among residents. However, sustaining this community life presents challenges and is often considered a major obstacle for eco-villages (Bertrand, 2023; Kirby, 2003). For example, coexisting with individuals holding different values and opinions is inherently difficult. Residents are also required to invest time and energy into the project, which may not always be feasible.

A third important characteristic of eco-villages, and a success factor in the case of the selected projects, is their belief in a **local way of self-governance and autonomy** (Xue, 2014). Similar to what is said in the literature by GEN Europe (2023), these communities operate on a sociocracy decision-making model, requiring consensus from all residents. They also independently manage the allocation of new residents, which is deemed vital for project survival. However, such autonomy demands significant time and energy, necessitating training in communication and conflict management, especially in discussing with large groups. Additionally, eco-villages face systemic barriers in lengthy discussions with external organizations, about for example obtaining permits for innovative wastewater treatment.

Finally, affordability in eco-villages, a key aspect of degrowing housing development, **was examined**. In line with the literature (Nesterova, 2022; Xue, 2022), equal access to housing and affordable development were prioritized in the selected eco-villages, particularly focusing on lower incomes. IEWAN and Zuiderveld achieved affordability for lower incomes through collaboration with housing corporations, while BWVB and Aardehuizen faced difficulties in finding a willing partner. This is seen as a systemic barrier, impacting the affordability of such projects. Other strategies to reduce costs include assisting in the building process, incorporating sustainable features like isolation and solar

panels, and sharing products. Overall, securing financing remains both a significant challenge and a crucial factor for project success.

The next part of the study was discovering what pitfalls and potentials housing corporations see with regard to these degrowth principles that are found in the eco-villages. For ecological sustainability, there is certainly acknowledgement of potential, but several challenges and barriers are identified. In line with their received assignment (Rijksoverheid, 2023b), housing corporations actively consider the ecological sustainability of their housing supply. Both recognizing their potential and their possible social responsibility to influence the broader housing market. However, the transition to building more sustainably faces challenges such as limited supply and high costs of sustainable materials, a knowledge gap (both with external organizations and within the housing corporations) and the risk of the unfamiliar, since there is no guarantee how the materials will age. Additionally, a systemic barrier in the form of restrictive rules (both formal and informal) was identified. The shift towards more ecological sustainability therefore requires a step-by-step process and a change in mentality.

Regarding autonomy, shared facilities, and a social building setup, housing corporations show less enthusiasm. While the housing corporations recognize potential benefits, like lower vacancy rates and reduced responsibility, certain concerns arise. Namely, more autonomy for residents presents risks of rentability, affordability, and enforcement challenges. This last concern mainly arises when people don't want to live in that type of way, which is also the main barrier, desirability. The results therefore emphasise the need for housing corporations to assess the target group's preferences.

During the discussion with the housing corporations, the principle of affordability was not discussed because of the already strong focus of housing corporations on providing affordable housing for lower-income people (Vandevyvere & Zenthöfer, 2012).

So, to conclude, what can housing corporations actually learn from eco-villages in adopting degrowth principles? First, eco-villages pose as an advanced example of more environmentally sustainable and shared housing. At a large scale this might not be feasible (yet), but there are definitely some aspects that the housing corporations can learn from eco-villages. Especially with regards to sustainable building and applying ecological sustainability to their housing supply, eco-villages can pose as inspiring examples of what can be achieved, and housing corporations can be alerted about the challenges and barriers that the eco-villages faced. Adopting these lessons requires a step-for-step process, and a change in mentality (with contractors, builders, housing corporations etc) as the innovations are not yet mainstream. Finally, housing corporations should determine their role in the transition and decide

how advanced they want everything to be. Is fully sustainable needed, or is more sustainable also good?

Second, eco-villages pose as examples for more autonomy for renters, shared facilities and building your project in a social set-up. However, the feasibility and especially the desirability of this on a larger scale is questioned by housing corporations. Housing corporations should therefore decide whether they want to apply these principles to their housing supply and to what extent. Instead of proposing clear solutions, this study brings attention to the relevance of the topic and aims to provide some starting points and some food for thought for future research.

Chapter 6.2 – Discussion

The previous chapter describes the main findings and conclusions of this thesis. This chapter discusses what these findings mean for the bigger debate on degrowth and housing development, and the possible role that housing corporations can play.

In the literature, there are a lot of ideas about how degrowth and housing development can work together (Ruiz-Alejos & Prats, 2022). However, the ideas mostly focus on the more local scale, while the bigger scale urban dimension of degrowth is still underexplored (March, 2018). By researching what housing corporations can learn from eco-villages, this thesis aims to discover how certain degrowth principles and eco-village practices can be applied to the larger scale, therefore contributing to the debate on degrowth and housing development.

Because of the big role of housing corporations on the Dutch housing market (Veenstra, 2016), they could have a significant influence in degrowing housing development. However, the results of this research show that the exact role that housing corporations could play in this degrowth transition is still unclear and should therefore be more thoroughly researched. The desirability of applying certain degrowth principles to the housing supply was questioned by respondents. A further question that arises from this is whether and to what extent housing corporations feel a responsibility to participate in the transition towards a degrowth society. What role do they want to, and should they play, and what possibilities do they have to aid this transition? This could differ between different housing corporations and is not something that can just be decided, but something that has to be discovered along the way. This research might provide a starting point here and some food for thought, but it is a topic that should be further explored over time.

This question about the possible role and responsibility has to do with the image and vision that housing corporations have for our society. What if (certain) housing corporations feel that implementing certain degrowth principles to their housing supply is in line with their image of what

our society should be, should they then take on a steering role? The results from this research showed that not everyone wants to share facilities or have more autonomy, and some people would rather have more privacy and live individualistically. It can then be questioned to what extent the housing corporations should impose their societal image on their renters. Considering this, a future approach might then involve housing corporations selectively implementing degrowth principles, like shared facilities and increased autonomy, in specific apartment buildings or housing projects. This approach allows renters the autonomy to choose whether they want to embrace a communal lifestyle, rather than being compelled to live in a way that may not align with their preferences. This nuanced strategy has the possibility to better accommodate diverse tenant preferences while aligning with the evolving societal landscape.

Besides possibly making changes to their own housing supply, housing corporations could contribute to a degrowth transition by investing more in new eco-villages or sustainable living community initiatives like with the eco-villages IEWAN and Zuiderveld. It was mentioned in the results that all the selected eco-village initiatives wanted to incorporate social housing in their project, but not all of them succeeded, which made it difficult for some of the projects to be affordable for lower-income people. This is definitely something where housing corporations could make a difference. Housing corporations could invest in more of these kinds of projects, by either funding new projects or building and paying for a few social houses in the project. By doing this, they could provide equal opportunities for lower-income people to also live in such a sustainable community, which is in line with the degrowth principles on more equal access to housing (Schneider, 2018).

Another important finding from the interviews, that can influence the literature on eco-villages, is that the definition of eco-villages found in the literature is not the same as what they are actually like in the Netherlands. The studied eco-villages were never fully self-containing settlements and still relied on facilities outside of the village. Another characteristic of the eco-village initiatives that deviates from theory is that they are not fully decentralized and alone standing communities, they are still connected to existing urban structures. This shows that the way in which eco-villages are defined is place-bound. In the future, when defining eco-villages, it would be better to make it more place-specific. This could prevent certain misunderstandings about what eco-villages look like and what they entail.

Chapter 6.3 – Limitations of the research

As with every research, some strengths and weaknesses can be identified. A strength of this research is that it addresses a topic that has not yet been addressed (often) in the literature, which makes it an actual contribution to the existing debate on degrowth and housing development.

However, some limitations to this research can also be identified. Namely, no generalisations for the whole of the Netherlands can be made from this research. First of all, because this is a comparative study between 4 selected eco-villages, no generalisations can be made about eco-villages in general. Secondly, the housing corporations that participated in the focus group are all located in and around the city of Groningen, which might have influenced the results, and which makes it quite region-specific. Housing corporations in other parts of the country might have different opinions on the implication of degrowth principles to the housing supply. It would therefore have been better to include housing corporations from all over the country, to get a more general idea of what housing corporations think. However, due to time constraints, this was not feasible for this research.

Chapter 6.4 – Personal reflection

During this research, I have gained some valuable experiences and learned a lot of things that I feel will be beneficial for my future in the planning field. First of all, by writing the theoretical framework, I have learned a lot about the topics of degrowth and eco-villages. Before starting my research, I had little to no knowledge on the subject, so I am really glad that I got to learn more about these interesting topics, especially since they are so relevant in this current day and age. Secondly, visiting some of the eco-villages was something that I enjoyed, and I feel like this was a good addition to my research. It was fascinating to see how people live in such an alternative way from what I am used to, and how valuable living there is for the inhabitants. It made me wonder if I would like to live in such a place one day and made me curious about what other initiatives are out there.

Finally, organizing and being present at a focus group meeting was very informative. Before doing this research, I did not know what a focus group entailed and how it worked. I now have obtained a new skill which I find very valuable.

I want to thank my supervisor Ward Rauws for his guidance during my master's Thesis, and especially the help he provided with regards to the focus group. I have learned a lot from this.

Chapter 6.5 – Recommendations for practice and future research

Based on the findings of this thesis, some recommendations for future research can be made. The first topic that could use some further research is the role of housing corporations in the transition towards a degrowth society. This thesis provides a starting point, but also places question on the role of housing corporations, and whether or not they should take on a steering role. For future research, it could be good to apply this study to a larger scale and organize multiple focus groups with housing corporations from all over the country, instead of just Northern housing corporations. First of all, it is possible that opinions are area-specific. By including housing corporations from all over the country, this could be prevented. Second of all, a bigger sample for the research could provide clearer and more extensive insights.

Secondly, an important topic that was raised in this study is that of desirability. For renters, but mostly for housing corporations. Housing corporations could research this within their own organisation, to figure out how they view our society and what kind of role they would want to play and whether or not they want to apply degrowth principles to their supply. They could also do some research about the desirability of these topics amongst their renters to get an image of the demand for this way of life.

The findings showed that it is preferred for renters to stand up and say that they want to start a new initiative instead of housing corporations determining for renters that they should live a particular type of life. Therefore, a third recommendation is that housing corporations should come up with a procedure for when this happens. What should they do and how can they facilitate such projects? It would then be good for housing corporations to orient and inform themselves on the topic, speak to housing corporations that already finance such projects and visit eco-villages, especially the ones in collaboration with a housing corporation.

A final recommendation is made for existing eco-villages and the initiators of those kinds of projects. They should create more awareness in society and specifically with housing corporations about their projects. As already done by some of the eco-villages in this study, they could inform others about the possibilities and about certain mistakes that were made. They could inspire others to also start such an initiative or convince housing corporations to invest in such projects. This way, they could contribute to the transition towards a degrowth society.

Chapter 7 – References

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Chapter 8 – Appendices

Appendix 1: Interview guide

Korte uitleg:

Ik schrijf een scriptie voor mijn master Society, Sustainability and Planning aan de Rijksuniversiteit Groningen. Ik onderzoek ecodorpen en bekijk in welke mate zij degrowth principes hebben toegepast. Degrowth is een politieke, sociale en milieubeweging die zich verzet tegen het huidige economische systeem van groei. Degrowth zoekt hier alternatieven voor. Ecodorpen worden vaak gezien als een manier om dit ruimtelijk te bewerkstelligen. Ik ben daarom erg nieuwsgierig naar uw initiatief!

(Pas de interview guide aan op alle verschillende initiatieven, dus maak een aparte voor de verschillende initiatieven. Aangezien ze allemaal andere dingen doen)

Introductie vragen:

- Wat is uw rol binnen (naam initiatief)
- Waarom hebt u besloten om deel te nemen aan/op te zetten (naam initiatief)

Verdere vragen:

Ik wil graag een aantal vragen stellen over de volgende thema's: ecologisch, sociaal, betaalbaarheid en autonomie (zelf-besturing). Dit zijn belangrijke pilaren van Degrowth.

Ecologisch (impact)

Bij het ecologische deel kunt u denken aan alles rondom duurzaamheid voor het milieu. De impact van het initiatief op de omgeving, gebruikte grondstoffen, energie, etc

- In welke aspecten van het project zie je dit terug?
- Hoe hebben jullie dit gerealiseerd?
 - o Wat was hiervoor nodig?
 - o Waar liepen jullie tegen aan?
- Wat zouden jullie verder nog willen bereiken op het vlak van duurzaamheid wat nog niet lukt?
 - o Waar lopen jullie tegen aan?
-

Sociaal (community development, sharing, gelijkheid, welzijn etc)

Bij het sociale aspect kunt u denken aan community building, het delen van faciliteiten etc.

- In welke aspecten van het project zie je dit terug?
- Hoe hebben jullie dit gerealiseerd?
 - o Wat was nodig en waar liepen jullie tegen aan?
- Wat zouden jullie verder nog willen bereiken op het sociale vlak wat nog niet lukt?

- Waar lopen jullie tegen aan?

Autonomie (zelfbestuur, community bestuur, samen besluiten)

Bij autonomie kunt u denken aan zelfbestuur vanuit de gemeenschap/vanuit de inwoners.

- In welke aspecten van het project zie je dit terug?
- Hoe hebben jullie dit gerealiseerd?
 - Wat was hiervoor nodig?
 - Waar liepen jullie tegen aan?
- Wat zouden jullie verder nog willen bereiken op het vlak van zelfbesturing wat nog niet lukt?
 - Waar lopen jullie tegen aan?

Betaalbaarheid (financiering en toegankelijkheid)

Het laatste belangrijke aspect is betaalbaarheid. Hier kan dus ook gedacht worden aan toegankelijkheid van woningen voor iedereen en financiering. (sociale huur, koop, normale huur etc)

- Hoe gaat dit in zijn werking bij jullie project? Hoe zie je dit terug? Was betaalbaarheid een belangrijk punt?
- Hoe hebben jullie betaalbaarheid binnen jullie project gerealiseerd? Of was dit niet iets waar jullie mee bezig waren?
 - Wat was nodig en waar liepen jullie tegen aan?
- Is er nog iets wat jullie hieraan zouden willen veranderen of verder zouden willen bereiken?

Appendix 2: Consent form interviews

Overeenkomst van deelname

Onderzoeker: Lisa Dietvorst

Onderzoeksproject: Masterscriptie Society Sustainability & Planning

Onderwijsinstelling: Rijksuniversiteit Groningen

Toestemmingsformulier

Bedankt dat u mij wilt helpen met mijn onderzoek naar ecodorpen en de toepassing van degrowth principes binnen de ecodorp initiatieven.

Het gesprek zal rond de 30 minuten duren. U kunt op ieder moment tijdens het interview aangeven te willen stoppen, of een vraag niet te willen beantwoorden. Het interview kan door de open structuur ook korter uitvallen of uitlopen.

Het interview zal worden opgenomen en vervolgens worden getranscribeerd. Het transcript zal worden gebruikt om de informatie uit het interview nader te analyseren, om zo de onderzoeksvraag te kunnen beantwoorden. U heeft de mogelijkheid het transcript te controleren en waar nodig aan te passen op feitelijke onjuistheden. Het audiobestand zal verwijderd worden wanneer het onderzoek is afgerond. De gegevens die tijdens het interview worden verzameld zullen vertrouwelijk worden behandeld, ook zal u anoniem blijven in het onderzoek.

De scriptie zal worden opgeslagen in het archief van de Rijksuniversiteit Groningen. Het transcript zal hier niet aan worden toegevoegd.

Met het ondertekenen van deze overeenkomst verklaar ik dat:

- Het mij duidelijk is waar het onderzoek over gaat en ik heb de mogelijkheid gekregen om vragen te stellen
- Ik begrijp dat deelname aan dit onderzoek vrijwillig is
- Ik begrijp dat ik op elk moment tijdens het interview kan besluiten om te stoppen of om te weigeren een bepaalde vraag te beantwoorden
- Ik akkoord ga met de opname van het interview
- Ik begrijp dat alle antwoorden die ik geef tijdens het interview vertrouwelijk behandeld zullen worden
- Ik begrijp dat antwoorden die ik gegeven heb in het interview omgezet kunnen worden naar quotes
- Ik begrijp dat elke documentatie van mijn antwoorden anoniem zal blijven. Dit zal gedaan worden door het weglaten van mijn naam en door het verbergen van informatie die kan lijden tot het onthullen van mijn identiteit

Handtekeningen en datum

Naam deelnemer	Naam onderzoeker Lisa Dietvorst
Handtekening	Handtekening 
Datum	Datum

Appendix 3: Coding scheme interviews

Codes	Subcodes	Specified codes	Inductive/ deductive
Gender	Male/female		Deductive
Role		Initiator	Deductive
		Resident	
Reason joining		Ecological reason	Deductive
		Affinity for community life	Deductive
		Improving world	Inductive
		Following partner	Inductive
		Starting over	Inductive
		Social purposes	Inductive
Vision			
Ecovillage as inspiration			

Realisation project	Collaboration with housing corporation		
	Collaboration with contractor		
Ecological sustainability		Communal nature	Deductive
		Materials	Deductive
		Self-sufficiency	Deductive
		Sharing	Deductive
		VOKO	Deductive
		Energy sufficient	Deductive
		Energy network	Deductive
		Shared cars	Deductive
		Water purification	Deductive
		Water collection	Inductive
		Second hand	Deductive
		Recyclable	Deductive
		Personal preference	Inductive
		Changes over time	Inductive
		Low tech	Inductive
		Compact living	Inductive
		Compost	Inductive
		Sewage	Inductive
		Stimulate biodiversity	Inductive
	Barrier	Money	Inductive
		Limited amount of land	Inductive
		Not mainstream	Inductive
	Aspirations		
Social aspect		Shared facilities	Deductive
		Sharing	Deductive
		Activities	Deductive
		VOKO	Deductive
		Collective nature	
		Presence of people	Inductive
		Support	Inductive
		Building together	Inductive
		Training	Inductive
		Community building	Inductive
		Conflict management	Inductive
		Choosing residents	Inductive
		Design to enhance meeting	Inductive
		Homogenous group	Inductive
		Mix of ages	Inductive
		Educating others	Inductive
		Connection with surrounding areas	Inductive
	Barrier	Conflict management	
	Aspirations		
Volunteers (social?)			

Autonomy		Sociocracy	Deductive
		Consent	Deductive
		Consensus	Deductive
		Workgroup	Inductive
		ALV	Inductive
		Training	Inductive
		Choosing residents	Inductive
		Guidance	
		Conflict management	
	Barrier		
	Aspirations		
Affordability		Rental houses	Deductive
		Owner-occupied homes	Deductive
		Materials	Deductive
		Second hand	Inductive
		Energy sufficient	Deductive
		VOKO	Deductive
		Subsidies	Deductive
		Personal investment	Inductive
		Financed by housing corporation	Inductive
		Sharing	Inductive
		Loan	Inductive
		Different sizes	Inductive
		Labour costs	Inductive
		Design	Inductive
		Volunteers	Inductive
	Barrier		
	Aspiration		
Extra compatibility with degrowth			

Appendix 4: Coding schemes focus group

Code	Theme
	Wenselijkheid
Betrokkenheid	
Andere wensen	
Ongelijkheid	
Beperkte autonomie	
Soort autonomie	
Doelgroep	
Afkeur voor gezamenlijke voorzieningen	
Gemeenschappelijkheid	
Interne discussie	
Mogelijkheden	
Sociale controle	
Ontmoetingsgerichtheid	
Tegen eenzaamheid	

Toekomstige opbrengsten	
Stap-voor-stap	
Maatschappelijke verantwoordelijkheid	
Duurzamer	
Mensen die willen	
Privacy	
Individualistisch	
Overlast	
	Haalbaarheid
Bestaande mogelijkheden	
Omdenken	
Informatie huurder	
Moeilijker in de praktijk	
Gebrek aan (vak)kennis	
Doelgroep	
Betaalbaarheid	
Duurzame materialen duur	
Beperkende regels	
Markt niet klaar voor	
Stap voor stap	
Beschikbaarheid	
Indirecte kosten	
Mentaliteitsverandering	
Cultuuromslag	
Prestatieafspraken	
Toewijzing	
Extra verantwoordelijkheid corporatie	
Organiseren	
Samenwerking	
Eigen initiatief	
Sturend	
	Risico's
Maatwerk	
Betaalbaarheid	
Verhuurbaarheid	
Handhaving	
Continuïteit	
Leegstand	
Onzekerheid	
Overlast	