



Norwegian University
of Life Sciences

Master's Thesis 2023 60 ECTS
BIOVIT

How a Resource Center for Urban Agriculture can Provide Multidimensional Tools for Social Development

The Case Study of Godsen, Drammen

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Para mis amigos

Preface

It's been a journey! Studying for a second master's degree is both a choice and an unforeseen challenge I never thought I would even consider. I feel lucky to find myself in a position where it was possible to be a student again, spend two years to immerse myself in a new topic and open for future possibilities. It's been a lot of fun, but also hard, frustrating, and challenging. The experience has shown how fast time flies when participating in something interesting.

I suddenly find myself in love with Drammen now. A city I'd only actually visited twice in my lifetime suddenly feels close, interesting, and full of opportunities – and with a bunch of lovely people.

This had never happened if I hadn't been lucky enough to enjoy two intense weeks of case work with Evas Grønne Hage in February 2022. Merete invited us to get to know a little part of Drammen and shared a green vision full of future possibilities combined with creative freedom and specific tasks to design a new green urban space on a completely grey spot – the parking lot in front of an old freight terminal. Later, Cathrine, and the rest of the team at Evas Grønne Hage, opened their arms and included me in their team. You are the best!

Through Evas Grønne Hage I was introduced to Bane NOR Eiendom and the project team of Nye Nybyen. You have welcomed me from day one. Especially thanks to Connie, Jonas, Benjamin and Joachim for inviting me to all the meetings, including me, providing relevant information and introducing me to relevant stakeholders. Thank you!

The research project has been developed together with my amazing supervisors, Roberta Cucca and Trine Hvoslef-Eide. You are like encyclopedias who ask exact questions that make me think twice, improve my ideas, and learn in the process. Thank you for your guidance and for being such lovely people!

I would like to thank my friends and family who have supported me before and during the process. Especially thanks to the Morales family and mí tocaya María who treats me like an equal family member, to my grandma and grandpa, and my mum, for first giving roots and then letting me grow wings to fly, and to the Collett/Selmer-family for providing the best possible writing location. “Stien” has been a second home during this process.

Anna, Mikael, Luíza, Laura, Zehad, Rasa, Mathias, Hilde and Mónica. Thank you for helping me. You are amazing!

Oslo, August 2023, Maria

Abstract

Urban agriculture has been identified as an opportunity to provide multidimensional tools for social development in urban areas. In this thesis, social development is defined as “concepts that aims to improve and promote integral human development and wellbeing”. Former railway properties are developed in central urban areas all around Europe, and large areas formerly closed off to the public are being developed into new neighborhoods. The current threat on food security due to natural disasters, conflicts and inflation, combined with a need of securing a green and inclusive development of fast-growing cities, forms the background for the current work.

The master’s thesis explores how a resource center for urban agriculture has the potential to provide multidimensional tools for social development, particularly urban development, social inclusion, food security and governance. With an inter- and transdisciplinary approach, various methods are used throughout the thesis to study the development of the initial phases of the establishment of a resource center for urban agriculture at Godsen - the former freight terminal in Nye Nybyen in Drammen inner city. The investigations aim to identify best practices and relevant tools that provide social development at local and regional level. Identified tools aims to function as guidelines to property developers, local authorities and other stakeholders when developing new neighborhoods, during placemaking processes and when considering using urban agriculture to facilitate social development in urban development projects.

The thesis reveals a need to develop policies and secure transdisciplinary cooperation to secure the inclusion of vulnerable groups in the new neighborhood and enhance access to education, employment, land, housing, credit, quality food, infrastructure, etc. The results contribute to a broader knowledge of how tools provided by urban agriculture can contribute to a more sustainable development according to the United Nations’ Sustainable Development Goals. Further on, important institutions and organizations recommended as partners in a regional resource network for urban agriculture, are identified. Thus, the thesis provides input to how Drammen Municipality and Bane NOR Eiendom can secure social inclusion in Nye Nybyen, how Godsen can be developed to an inclusive meeting space, and how Evas Grønne Hage and Grønne Drammen can develop a regional resource center for urban agriculture in Drammen.

Key words: Urban agriculture, urban development, social inclusion, food security, governance, stakeholder analysis.

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1 Introduction

This thesis is the final work to complete the master's degree in urban agriculture at the Norwegian University of Life Sciences (NMBU). The master program in urban agriculture focuses on student active-, interdisciplinary- and transdisciplinary learning. It is a cooperation of all faculties at NMBU and external partners and derives from the need of cooperation to achieve sustainable development as stated in the sustainable development goals, and the need to use urban agriculture (UA) as part of the solution to address future climate issues and food access expressed by The Food and Agriculture Organization of the United Nations (FAO) (FAO, 2023c; NMBU, n.d.-a, n.d.-b; United Nations, 2015). During the master program students work together with external partners finding solutions for wicked problems and real-life cases introduced by the external partner.

Evas Grønne Hage (EGH) was one of the external partners during the spring of 2022. A group of students got to cooperate with EGH to design an outdoor space in front of the old freight terminal in Drammen, something that opened doors for one student to further cooperate with EGH in the development of Godsen as a resource center for urban agriculture (RCUA) through an internship in Drammen. The internship allowed the student to follow the internal processes to develop the RCUA in cooperation with local actors and Bane NOR Eiendom (BNE), the owner and property developer of “Godsen” and the new urban area “Nye Nybyen” – “the New Town” (Bane NOR Eiendom, 2022c; Evas Grønne Hage, 2022a).

This thesis documents the research carried out to investigate how a RCUA can provide multidimensional tools for social development at regional level identifying relevant stakeholders, investigating how the resource center may limit social vulnerability and food poverty, and how Godsen may play a role in securing an inclusive environment for all citizens in the region. Placed at Godsen, a historical building of heritage value and the defined heart of the future green neighborhood “Godsløkka” in “Nye Nybyen” (Bane NOR Eiendom, 2023c), the investigation is set in the context of the property development project where a former closed railway property in a central urban area will be transformed to a new commercial area and a new neighborhood.

The inter- and transdisciplinary methods introduced during the master program's mandatory courses have been carried on through the cooperation between the student, the university and external partners, and are implemented throughout the research project.

A transdisciplinary approach has led to a topic, sub-research questions and a literature review where multiple fields are included. Information and knowledge acquired during field work and recorded in the field notes are referred to throughout the thesis. The aim and relevance of the study will be presented further.

1.1 Aim and relevance of the study

The investigation aims to identify best practice and relevant UA tools that provide social development at local and regional level. Identified tools aims to function as guidelines to property developers, local authorities and other stakeholders when developing new neighborhoods, during placemaking processes and when considering using UA to facilitate social development in urban development projects.

The relevance of the study parts from the literature review where few articles were found on development of former railway property located in central urban areas (Bertolini, 1998; Bertolini et al., 2012; Ribalaygua et al., 2020), and how these properties and connected buildings of heritage value may contribute to social inclusion and development of spaces and areas. While this thesis focuses on railway property, the results might just as well be used in the development of other urban areas.

Several studies have been published on how UA contributes to social development, inclusion and food production, and how UA may provide different tools that contribute to this development (Langemeyer et al., 2021; Orsini et al., 2014). Studies on temporary use show that planners and developers aim to copy the success of spontaneous temporary use of space and increase property value when developing new city districts or neighborhoods (Oswalt et al., 2013). The present case study is meant to contribute with an example of how a RCUA might provide tools to achieve sustainable local and regional development in the context of an urban property development project on a former railway property in a central urban area like Nye Nybyen, and how UA tools can take part in the construction of a socially inclusive neighborhood like Godsløkka.

Figure 1 illustrates the current situation for Godsen and its surroundings where A and B shows Godsen and the former freight area and current railway installations where the new neighborhood will emerge and the RCUA established, C shows Godsen's west façade and D is the eastern. D is the natural entry point during the construction period.

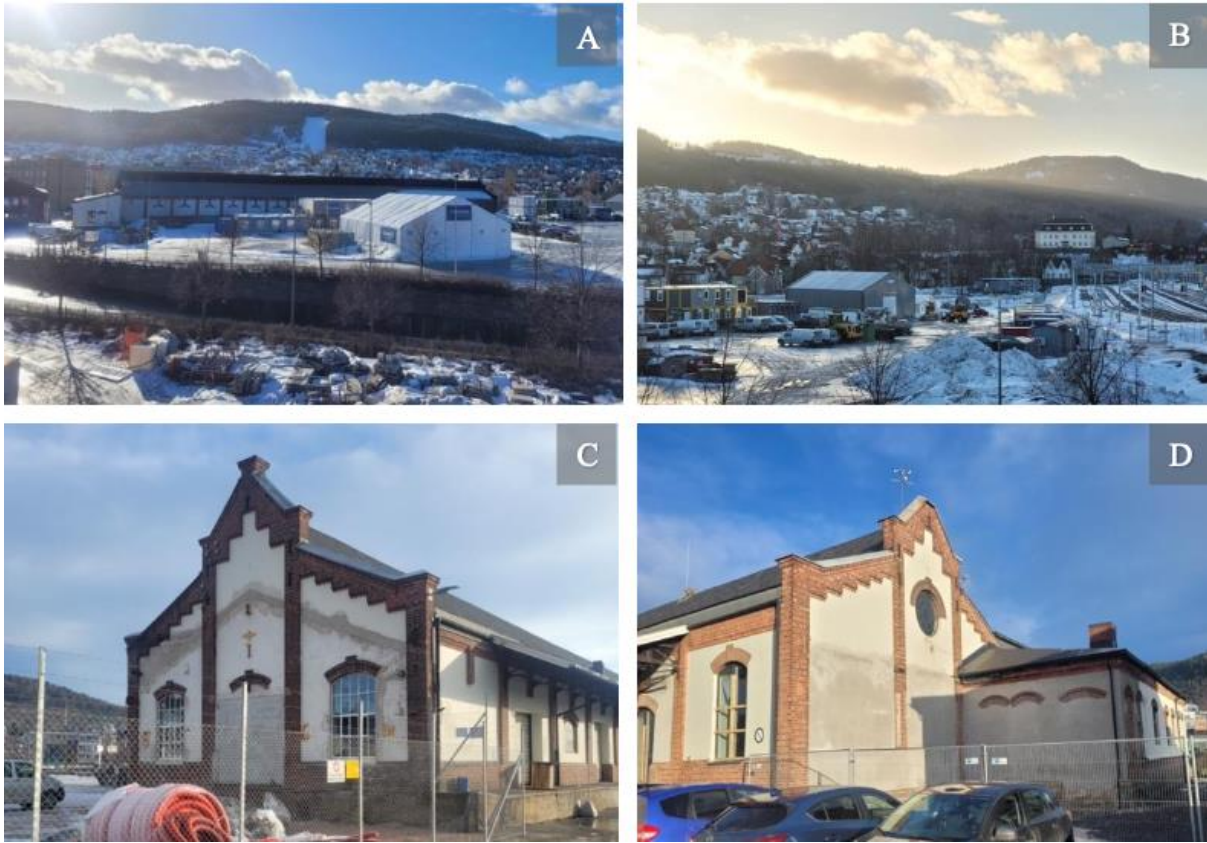


Figure 1 An illustration of the current situation for Godsen and its surroundings

Photos: Maria Trettvik

1.2 Research question

There are many publications on the topics of urban agriculture, urban development, food security and social inclusion (De Bon et al., 2010; Dubbeling et al., 2010; Duchemin et al., 2008; Langemeyer et al., 2021; Opitz et al., 2016; Ribalaygua et al., 2020). Cities are expanding, and new city districts and neighborhoods developed to serve a growing population. Several cities around Europe have experienced huge development projects at and around existing and former railway properties in central areas with high property values (Bertolini et al., 2012). Few studies have been executed on how to secure social development at regional level when central railway properties are developed to new neighborhoods where many people will share small areas for social interaction, relaxation and daily life.

Since 2020 Europe has experienced inflation, drought, flooding, a pandemic and a war that has threatened food security at local, regional and global level. The current situation on food security combined with a need of securing a green and inclusive development of fast-growing cities has inspired the main research topic:

“By focusing on the case study of Godsen, the thesis will investigate how a center of urban agriculture can provide multidimensional tools for social development at regional level”

In this thesis “social development” is defined as “concepts that aims to improve and promote integral human development and wellbeing”. The definition is based on CEPAL (n.d.). Focusing on the development of the old freight terminal, which has been identified as the future hearth of a new neighborhood and the location of a regional center of urban agriculture, the conducted investigation looks at three sub-research questions (RQ1, RQ2 and RQ3) to support the main research topic:

RQ1 “What is the agency of different stakeholders in the development of Godsen as a regional center for urban agriculture?”

RQ2 “What can be the role of the regional center for urban agriculture in limiting social vulnerability and food poverty?”

RQ3 “How can Godsen secure an inclusive environment for all citizens in the region?”

The identification of different stakeholders and their agency, the stakeholders “ability to take action or choose what action to take” (Agency, n.d.), is important to understand due to the interests of each stakeholder and how they may affect the development of the RCUA including future services and activities offered at and in connection with the center. The second sub-research question is important to secure social interaction and prevent food poverty at regional level. The third sub-research question identifies activities and services that secure a high level of inclusion for all citizens in the region. This is important to prevent gentrification because of the city development project. The structure of the thesis paints an image of how the research questions have been explored.

1.3 The structure of the thesis

This thesis is structured with seven chapters where Chapter 1 introduces the research project in the context of the master program in UA and presents the aim and relevance of the study, the main topic and the sub-research questions. Chapter 2 presents the theoretical framework used to understand the research questions. Fundamental factors for the study are explored in general, and specifically in relation to the research questions. In Chapter 3 the methodology used to investigate the research questions is described. Chapter 4 deals with the case study. Initiating with a presentation of the area, the development of Nye Nybyen, including the new neighborhood Godsløkka, and the development of Godsen as a RCUA. Followed by a presentation of the empirical findings based on the theoretical framework in Chapter 5. In Chapter 6 the findings are discussed in relation to the research questions, and a proposal for future urban development projects and the development of a RCUA is presented. To finalize the thesis, concluding remarks that compare the findings with established international goals for sustainable development are given in Chapter 7.

1.4 Concluding remarks

In Chapter 1 an introduction to the thesis is presented and the main specifications for the investigation established. The transdisciplinary approach introduced during the master program in urban agriculture at NMBU has been implemented into the investigations and will persist throughout the thesis.

Considering the development of former railway property into new neighborhoods and city districts around Europe, the case study of Godsen investigates how a RCUA can provide multidimensional tools for social development at regional level. The sub-research questions focus on governance, food security and social inclusion.

Being a transdisciplinary research project, the theoretical framework presented in Chapter 2 is based on an interdisciplinary literature review where UA, urban development (UD), food security, social inclusion and governance are fundamental factors for the study. These topics will be explored further and makes the background for the research agenda.

2 Theoretical framework

Chapter 2 begins with an introduction of the approach to the literature review, followed by an introduction to UA and its multiple possibilities, before introducing different aspects of urban development, social inclusion, food security and governance. The development of former railway property in urban areas, temporary use of property and buildings, placemaking and possible consequences when redeveloping an area, has been identified as especially relevant topics within urban development for the present case study. General concepts of social inclusion, governance and a reality check on food security according to the current situation, both in Norway and internationally, are explored. Each discipline is explored in the context of UA to contribute to answer the topic and sub-research questions regarding how a RCUA can provide multidimensional tools for social development at regional level.

The theoretical framework builds on a literature review and identifies strategies, research and theories relevant for the study. Functioning as a background for the chosen topic, this chapter works as the foundation and analytical framework of the thesis. Based on the inter- and transdisciplinary approach of the investigation, multiple disciplines have been combined and explored in a UA context. Theories and concepts are presented in Table 1 and shows how the topic and RQ's are developed through main themes and concepts.

Table 1 Theories and concepts

Theories and concepts		
Research questions	Main themes	Concepts
<i>Main topic: By focusing on the case study of Godsen, the thesis will investigate how a center of urban agriculture can provide multidimensional tools for social development at regional level.</i>	Urban agriculture Urban development	<ul style="list-style-type: none"> - Railway property development - Temporary use - Placemaking - Gentrification - The above in a UA setting
<i>RQ1: What is the agency of different stakeholders in the development of Godsen as a regional center for urban agriculture?</i>	Governance Stakeholder theory	<ul style="list-style-type: none"> - Policies on UA - Planning in UA - The above in a UA setting
<i>RQ2: What can be the role of the regional center for urban agriculture in limiting social vulnerability and food poverty?</i>	Food security	<ul style="list-style-type: none"> - Food access - Food quality - The above in a UA setting
<i>RQ3: How can Godsen secure an inclusive environment for all citizens in the region?</i>	Social inclusion	<ul style="list-style-type: none"> - Factors of social inclusion - Areas of inclusion - Facilitating inclusion - The above in a UA setting

The theoretical framework is established through an interdisciplinary literature review based on the theories and concepts presented in Table 1 and function as the background for the research agenda. These fundamental concepts are identified and explored through international, national and local strategies and relevant academic and non-academic literature.

In the context of an urban development project on former railway property located in a central urban area, urban development is explored through concepts relevant for the present case study and how UA can make an impact on the selected concepts. Temporary use of space is explored in general, in the context of UA, and how placemaking can provide possibilities for short- and long-term sustainable initiatives, followed by possible effects on popularity, property value and change of residents in putative gentrified areas.

To investigate how a RCUA can provide multidimensional tools for social development and secure an inclusive environment for all citizens in the region, the theoretical framework explores the concept of social inclusion and the use of tools within UA initiatives to achieve sustainable and social development and limit social vulnerability. Further on the importance of food security and food safety is explored to investigate how a RCUA may contribute to limit food poverty. Further on the presence of multiple stakeholders and the governance concerning UA initiatives are explored.

2.1 Approach to the literature review

The literature review offers a combination of findings in the studied literature and function as a substitute for theory (Clark et al., 2021, p. 19). A transparent, complete and accurate systematic review can provide valuable information about the selected research topic. The literature review conducted during the research project for the present thesis has followed a set of guidelines where data was collected and registered. To secure a quality review, a selection of principles presented in the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) 2020 checklist was used to conduct and report on the review (Page et al., 2021).

The research topic and three sub-research questions were the baseline for the research. Keywords were selected to identify theories, concepts and methods applied to research within UA, as well as possible contradictions, controversies and key contributors related to the field. Keywords relevant for many UA studies, but unrelated or not directly related to the selected topic and RQ's, were excluded from the review (Clark et al., 2021; Page et al., 2021). Selected keywords and combinations are presented in Table 2. The keyword selection is based on the topic and RQ's and searches made using single or a combination of keywords.

Table 2 Selected keywords for the literature review

Main research topic	RQ1	RQ2	RQ3
Urban agriculture	Stakeholder analysis	Contingency plans	Social inclusion
and / or	and / or	and / or	and / or
Blue-green structures	Actors	Food resilience	Harassment
Development	Agency	Food safety	Multifunctionality
Gentrification	Governance	Food security	Policies
Green gentrification	Planning	Inclusion	Social exclusion
Multidimensional tools	Policies	Nutrition security	
Placemaking	Urban development	Preparedness	
Policies		Policies	
Railway properties		Resilience	
Rooftop Gardens		Urban food security	
Social development		Vulnerable groups	
Sustainable development			
Urban development			
10-minute city			
	UA + each of the above	UA + each of the above	UA + each of the above

The search was conducted using the guidelines presented in Table 3. To consider the risk of bias the number of citations, publisher and authors institutional affiliation were checked, and peer-reviewed articles preferred. When possible, several articles on the topic were examined. Articles that satisfied more than one of the chosen keywords were preferred. No temporal limitations were selected, but the year of publication was checked, and recent articles preferred in accordance with the methods of Page et al. (2021).

Table 3 Literature review guidelines

Sources:	Topic:	Geographical reach:	Languages:	Data collected:
Electronic databases:	Main research	World	Main: English	Author
• Oria	topic		Norwegian	Title
• Google Scholar	Sub-		Supplementary:	Year of publication
• Web of Science	research		Spanish	Keywords
• Keenious	questions		Portuguese	Study location (country)
				Language

To adjust the workload to be suitable for a master thesis investigation conducted by one student, only the 55 academic articles selected and used in the thesis appear when reporting on the literature review. This limitation may restrict the possibilities to discuss the total amount of academic articles found during the search, but in the context of a master thesis investigation the selected articles do show how a transdisciplinary approach to a UA study include research from several fields of investigation. Chosen articles have a geographical distribution of fourteen countries as shown in Figure 2.



Figure 2 Visualization of geographical distribution of academic articles

Elaborated by author using Magic Maps 2.

The map in Figure 2 shows the distribution of countries where the main author is based. Many of the articles presented studies conducted in or about other countries in Europe, Latin America, Africa and Asia (De Bon et al., 2010; Dubbeling et al., 2010). This demonstrates that UA is international, and tools provided by UA may contribute to sustainable development around the world. However, conducted investigations on UA are concentrated in a few countries in Asia, Europe and North America when conducting literature research in English, Norwegian, Spanish and Portuguese. Literature research in other languages could have given another distribution.

UA and its multifunctional capacities and tools will now be explored.

2.2 Urban agriculture

The master program in UA at NMBU includes multidimensional aspects like sustainability, urban farming, food production and security, blue-green cities, social inclusion, integration and public health (NMBU, n.d.-b). Different actors state the importance of multistakeholder participation and the involvement of the community and local actors to solve wicked problems. Through UA activities a regeneration of local resources often serves multiple goals and functions of the society (Dubbeling et al., 2010; FAO, 2023b). A literature review shows that no common official definition of UA has been defined. Different entities and scholars have defined UA according to their field (Dubbeling et al., 2010; FAO, 2023b; Norwegian Ministries, 2021; Opitz et al., 2016).

UA activities may happen within built-up areas (intra-urban) or the peripheral areas of cities and towns (peri-urban) (Martin-Moreau & Ménascé, 2019). FAO defines urban and peri-urban agriculture (UPA) as “practices that yield food and other outputs through agricultural production and related processes (transformation, distribution, marketing, recycling...), taking place on land and other spaces within cities and surrounding regions” (FAO, 2023b, top of page). Dubbeling et al. (2010, p. 4) includes intra-urban and peri-urban agriculture when defining UA as “the growing of plants and the raising of animals within and around cities and related activities (production of inputs, processing, marketing, provision of services to agricultural producers and agro-enterprises)”.

In Norway the strategy for UA states that UA implies food production, but it can also “contribute to business development, better resource utilization, vibrant local communities, a better environment, better public health and greater wellbeing for large population groups” (Norwegian Ministries, 2021, p. 12) and be an arena for practicing Norwegian language, social training and offer activities for unoccupied people (Meld. St. 28, 2022-2023). Further

on the strategy spotlights the importance of securing food production skills and knowledge in the community and how it can contribute to national preparedness and public safety (Norwegian Ministries, 2021).

Throughout this thesis urban agriculture implies both intra-urban and peri-urban activities and is defined as “the growing of plants, sustainable use of resources and related social and economic activities within and around urban areas”.

The national strategy for UA emanates from the United Nations (UN) 2030 Agenda for Sustainable Development and aims to local grounding in regional and municipal policies and plans (Norwegian Ministries, 2021).

The municipality of Drammen can be found in Viken County. The County Governor of Oslo and Viken identify UA as an important tool to protect valuable fertile soil in and around urban areas, food production, knowledge dissemination and social activities. The County Governor identified soil protection and agriculture reputation to be the focus areas in 2019-2022 (County Governor of Oslo and Viken, 2019). The County Governor has provided economic funding to establish a RCUA in Drammen (Evas Grønne Hage, 2022a).

Drammen Municipality (DM) aspire to be the greenest municipality in Norway and a facilitator which makes it easy to make environmentally friendly choices. The municipality aims to preserve and promote natural diversity and be a pioneer for circular economy through sustainable food production and reduction of food waste, reduced consumption and increased reuse, recycling and use of renewable energy. Further on the municipality aims to be the preferred regional center in Norway, an attractive community for residents and the business community’s first choice through a defined strategy for urban and regional development based on the UN Sustainable Development Goals (SDGs) (Drammen Municipality, 2021c).

2.2.1 The multifunctionality and multidimensional tools provided by urban agriculture

According to Peng et al. (2015) multifunctionality has become an important factor in the field of UA after it was officially introduced at the Earth Summit in Rio de Janeiro in 1992, and has been the subject for many academic investigations regarding agricultural landscapes. Since 2020 academic research shows an increase in use of recreational green spaces and an amplification of the view on UA and the importance of food resilience in urban areas during the COVID-19 pandemic (Langemeyer et al., 2021; Pulighe & Lupia, 2020; Venter et al., 2020).

To respond to the second and third sub-research questions (2) “What can be the role of the regional center for urban agriculture in limiting social vulnerability and food poverty?” and (3) “How can Godsén secure an inclusive environment for all citizens in the region?” theories presented by Langemeyer et al. (2021) and Duchemin et al. (2008) on multifunctionality and multidimensional tools have been used.

Langemeyer et al. (2021) claims that UA with its multiple functions needs to be a bigger part in strategies for urban planning to secure sustainable urban development. The urban agricultural triad presented in Figure 3 visualizes how multifunctionality, resilience and sustainability take part in a circular UA where social, environmental and economic elements meet and provide positive effects on food security and for the community.

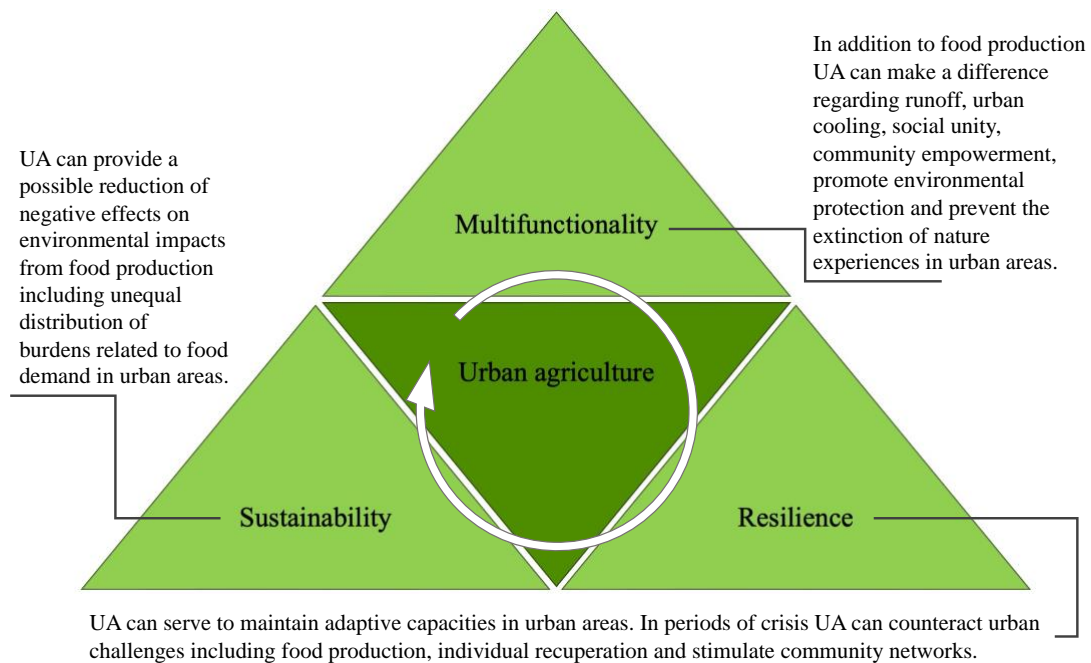


Figure 3 The urban agriculture triad

Source: Elaborated by author based on Langemeyer et al. (2021, p. 3)

Through UA tools implemented in planning strategies, cities can develop policies to be more resilient in crisis and prevent food shortage in case of changes in current food systems. Local food production, if providing a significant share of the local food consumption, also have the potential to reduce negative impacts on the environment reducing transportation costs and food waste, as well as encouraging positive effects on eco systems, water management, temperature reduction etc. (Langemeyer et al., 2021). Such approaches would be in accordance with the needs for changes in dietary habits, food waste reduction

and transportation identified by the Norwegian Environment Agency to achieve defined SDGs by 2030 (Norwegian Environment Agency, 2023).

To enhance development of poor neighborhoods in industrialized countries Duchemin et al. (2008) have identified and studied different approaches implemented by a group of collective gardening associations in Canada. Figure 4 illustrates the possible impact UA may provide on eight different areas.

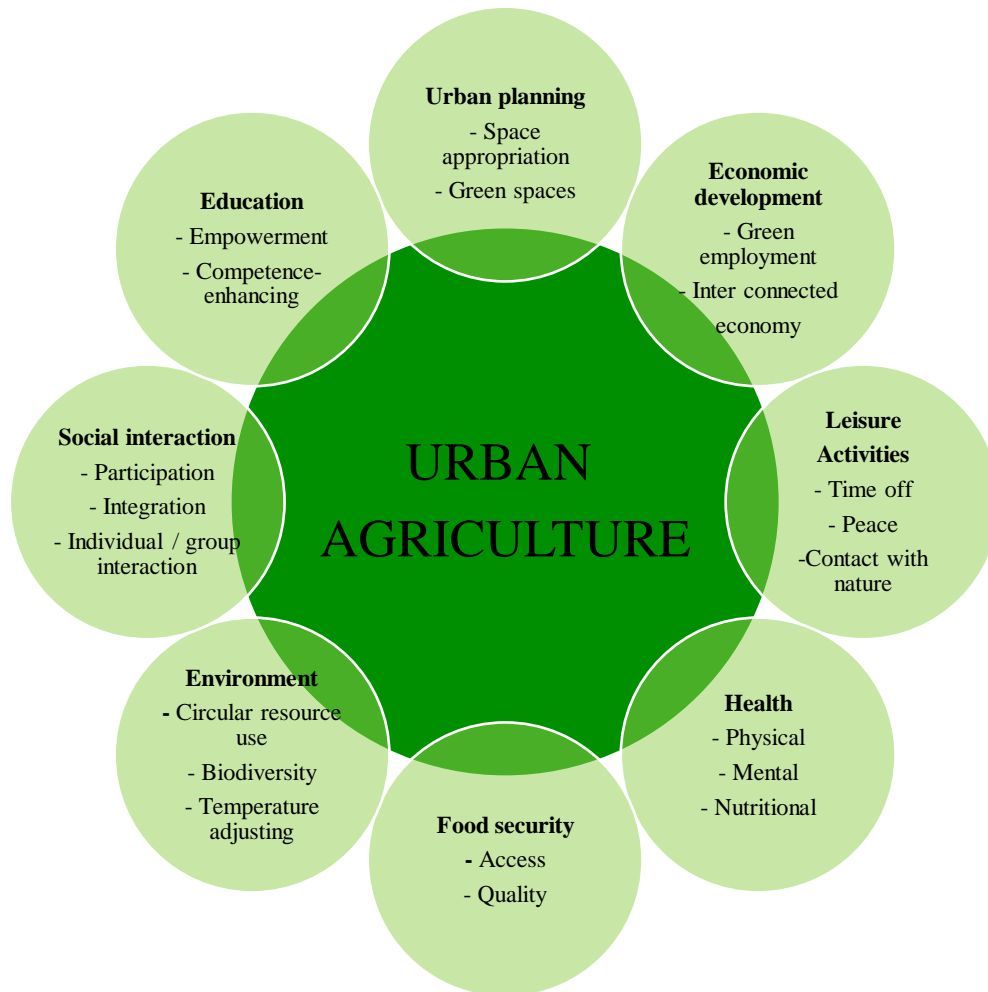


Figure 4 Eight areas where UA can provide multidimensional tools for sustainable development

Source: Elaborated on by author based on Duchemin et al. (2008, p. 44)

According to Duchemin et al. (2008) the multidimensional tools provided by UA include the appropriation of land to grow edible plants. UA activities may improve the economic conditions of low-income and vulnerable families providing access to quality food. Through social interaction, physical activity and healthy produce UA can contribute to improving psychological and mental health, as well as healthier nutrition. As UA appeals to people of

different socioeconomic status, UA-related activities contribute with meeting points across existing identities and life situations (Figure 6). Contact with nature, peace and time off spent together with others provide space for positive interactions where individuals and groups can meet through casual encounters or through participation in organized activities. As participants work together, they learn from each other and common educational spaces that foster empowerment are created. Here, people with different educational levels, backgrounds and capacities empower each other through sharing knowledge and experiences and participating in common activities where they can learn about biodiversity, circular use of resources and contribute to the development of their community. Additionally, UA contributes to public awareness and personal and political empowerment. Participants can sell their produce or secondary products like jam and canned food. Local actors can offer courses, organize and take care of UA spaces that create the possibility for green jobs as well as cooperation between actors when local stores sell locally made marmalade (Duchemin et al., 2008).

In addition to economic and environmental benefits, UA has shown to provide multiple social benefits through recreational activities where people of different cultural and social background meet on common ground and new interpersonal bonds are created and long-term friendships established both in Norway, in other countries in the north and in the south (Langemeyer et al., 2021; Lydersen, 2020; Wong, 2021).

A study on depression risk in different urban areas in Denmark has shown that open spaces, in densely populated areas, that encourages to social interaction, reduces the risk of depression among inhabitants (Chen et al., 2023). Through targeted urban planning, properties can be reserved for green spaces facilitating social encounters. Parks and other green spaces where people are employed to green jobs, and where neighbors and visitors may spend time in contact with nature and with the possibility to meet others. Edible plants may be grown for pollinators to feed from their flowers, vegetation and soil used for water management purposes, and fruit, berries and vegetables harvested to be cooked in a community kitchen where participants can teach, learn and feel empowered and included (Duchemin et al., 2008; Koldingsnes, 2022; Langemeyer et al., 2021; Lydersen, 2020; Wong, 2021).

2.3 Urban development

The eleventh SDG “Make cities and human settlements inclusive, safe, resilient and sustainable” (United Nations, 2015, p. 14) identify several areas for sustainable urban development and involves environmental, economic and social dimensions. The sub goals aim to secure the implementation of integrated policies and plans and include citizen participation, reduction of the environmental impact per capita, provide green and public spaces that are inclusive, accessible and safe as well as consolidating national and regional planning to encourage positive environmental, economic and social links between rural, peri-urban and urban areas (United Nations, 2015, p. 21-22).

The Norwegian strategy for UA, “Cultivate cities and towns” (Norwegian Ministries, 2021), define the primal goal to be “Sustainable urban and local development” (Norwegian Ministries, 2021, p. 11) specifying climate adaption, parks, green urban spaces and market- and rooftop gardens as action areas (Duchemin et al., 2008; Norwegian Ministries, 2021, p. 11). Further on the third goal of the strategy is “Increased sustainable value creation and business development” (Norwegian Ministries, 2021, p. 11) identifying green positions, social entrepreneurs, innovation and value creation (Norwegian Ministries, 2021, p. 11). The Norwegian Government encourages Norwegian municipalities to develop varied urban spaces and meeting places (Meld. St. 28, 2022-2023).

Drammen Municipality aims to be a good place to live and develop the municipality according to citizen needs and be present, inclusive and innovative. This implies close cooperation with citizens and community organizations (Drammen Municipality, 2021c). The area plan for the new Drammen Municipality is under development (Drammen Municipality, 2023e). The proposal for the new area plan includes protection of green spaces, preservation of cultivated and arable land and to prevent development of such areas (Drammen Municipality, 2023g). Property development and construction of new housing is planned in the city center and central areas to secure proximity to existing infrastructure and public transportation (Drammen Municipality, 2023b).

Many current development projects in and around Drammen, including the new hospital, are developed on or in connection with former or current railway properties (Bane NOR Eiendom, 2023a).

2.3.1 Development of a former railway property

More than two decades ago Bertolini (1998, p. 163) wrote that “Railway stations and their surroundings are the object of ambitious redevelopment plans throughout urban Europe.” More recent investigations states that abandoned railway tracks and property are developed and areas reused around the world, often as public space for citizens, traffic facilities or places for commerce and tourism. Some projects aims to develop entire regions (Bertolini et al., 2012; Zhang et al., 2020).

Railway properties are redeveloped around Europe. Central areas in London, Madrid, Stuttgart, Zürich and Gothenburg have experienced huge changes (Bertolini et al., 2012; Crea Madrid Nuevo Norte, 2023; Jernhusen, 2023; Ribalaygua et al., 2020). Projects are often “transit-oriented development” but can also be part of an “urban mega project” (Bertolini et al., 2012). Region City is a city development project at and around Gothenburg Central Station which aims to be a regional hub that provides sustainable living, commerce, workplaces and travel (Jernhusen, 2023). In Norway BNE is currently working on more than a hundred property development projects at or around former and existing railway properties (Bane NOR Eiendom, 2023a, 2023c).

In New York, the High Line is a popular public space and park built on an abandoned elevated freight rail line over the streets of Manhattan (The High Line, 2023). The Rails-to-Trails Conservancy works with local authorities around the US to preserve and convert abandoned railway tracks to trails for public use (Rails-to-Trails Conservancy, n.d.). Rail-to-Trails program has spread to Europe, Australia, and Asia, and in Drammen an abandoned railway track at Strømsø is considered as a future trail and is included in the development of Godsløkka (Bane NOR Eiendom, 2019; Zhang et al., 2020).

Musée d’Orsay in Paris was an abandoned train station that was remodeled into a museum exhibiting world famous impressionist art (Musée d’Orsay, 2023; Zhang et al., 2020). In La Paz, Bolivia, the former Central Railway Station has been remodeled and function both as a cultural center and a station of the city’s cable car network (Soruco, 2015). Godsen in Drammen initiated its new function as one of several exhibition spaces for the regional art exhibition Østlandsutstillingen in 2023, Figure 5 (Østlandsutstillingen, 2023).



Figure 5 Godsens as an exhibition space for regional artists during Østlandsutstillingen in 2023

Photo: Maria Trettvik

Many of BNE development projects include the remodeling, reuse and temporary use of buildings with heritage value (Bane NOR Eiendom, 2023a, 2023c).

2.3.2 Temporary use

Following the fall of the Berlin wall, Berlin entered a period of extensive urban planning with a short construction boom succeeded by drastic changes where most plans were put on hold and many buildings and properties vacated and abandoned. The stagnation of the official urban development plans triggered an extended temporary use of abandoned spaces resulting in a new kind of urban development that was not recognized by the authorities, but much appreciated by youth and alternative groups (Oswalt et al., 2013).

As time has passed temporary use of urban spaces has demonstrated to be socially inclusive in many ways. Through user-based urbanism an organic urban development may be achieved. Temporary use of spaces may provide flexible and dynamic services where financially and socially weaker residents are included. The flexibility provides space for newcomers and a development of alternative economies, some of which function as urban hot spots (Nevland, 2023; Oswalt et al., 2013).

Temporary users of space often represent deinstitutionalized ways of life, being self-employed, project-related workers, unemployed, part-time workers, or a combination of different statuses - people with a solid expertise and do-it-yourself mentality that contribute to economic and social innovation through informal markets and diverse activities. Many users are immigrants, refugees, have low-income or represent the avant-garde and think outside the box (Oswalt et al., 2013).

Temporary use of space often offers a combination of economic activities meant to provide a household, and non-profit activities where users set efficiency and profit aside and focus on activities that provide social equilibrium and stabilization of neighborhoods. Many of the activities assumed by civil society are welfare tasks organized without external control. Enabling social initiatives and allowing citizens to design the use of space themselves, facilitates dynamic urban planning with shared control (Oswalt et al., 2013).

Successful temporary use of space in Berlin, London, Paris, and other cities has led to changes in urban planning where planning authorities and property developers make space for temporary use of buildings and land. Identifying areas or buildings and protecting them from commercial development, planners and developers aim to develop new social platforms where several distinctive groups participate, and social and cultural impulses are generated. In Hamburg, a section in HafenCity was selected for gradual open-source development based on citizen participation (Oswalt et al., 2013).

In Oslo Vollebekk Fabrikker and Startblokka in Bjerke City District were abandoned office buildings selected for temporary use prior to demolition and the development of future neighborhoods (Habberstad & Hanssen, 2022; Nevland, 2023). Startblokka is an example of temporary use of space where a developer, local authorities, an area-based initiative and local actors cooperate to achieve sustainable development including UA and circular use of resources prior to the development of a new neighborhood (Nevland, 2023; Startblokka, 2023a). One temporary initiative at Startblokka is a nursery growing plants for sale in the atrium of the former office building, UA courses about different techniques and how to grow at home or in your garden, and a market garden where vegetables and other edible plants are grown for sale locally (La Selva Gartneri, 2023).

In Drammen, Godsens is a building of heritage value selected as an instrument for placemaking, the future social platform for Godsløkka and a location for different UA initiatives like an edible park, courses and a school garden (Bane NOR Eiendom, 2023c; Evas Grønne Hage, 2023; Koldingsnes, 2022).

2.3.3 Placemaking

Wyckoff (2014, p. 2) defines placemaking as “Placemaking is the process of creating quality places that people want to live, work, play and learn in”, and identifies four distinct types of placemaking: Standard “Placemaking”, “Strategic placemaking”, “Creative placemaking” and “Tactical placemaking”. Further on Wyckoff (2014, p. 2-3) states that the process of placemaking is a quality process including action to achieve a goal of developing a “Quality place”, a place that provide mixed-uses, quality public and green spaces, recreation, arts, culture, and creativity combined with community heritage, preservation and historic structures and multiple housing and transportation options. A place that’s designed for people, easy to access and move around, where it is safe, comfortable, and calm, or designed for loud activities, where one feels welcome and it’s easy to socialize and facilitate activities for and by the community. While “placemaking” is the general term, the specific elements of the three additional types of placemaking are:

- **Strategic placemaking** has targeted goals projects and activities related to employment and are often large projects on few locations located in densely populated areas like the city center and key corridors (Wyckoff, 2014).
- **Creative placemaking** often manifest a goal to institutionalize creative thinking, arts, and culture, and implicate the cooperation of actors from public, private, non-profit and community sector to:
 - “...strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities. Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local business viability and public safety, and brings diverse people together to celebrate, inspire, and be inspired.” (Markusen & Gadwa, 2010, read in Wyckoff 2014, p. 6).
- **Tactical placemaking** is a combination of approaches to develop public spaces and consist of using phased approaches to create a “Quality place” long term. It often starts with short term commitment at low cost and involves local stakeholders and the community which implement small

projects and activities short term. The approach can be adjusted again and again over the years and create a positive impact on the transformation of an area (Wyckoff, 2014).

In Bjerke City District in Oslo another developer uses tactical placemaking to create a quality place at the future neighborhood Linderudløkka. The abandoned Siemens buildings have been made available by the developer to arrange for an increase in activity including local production of edible plants and as a home to local entrepreneurs, organizations, and sustainable initiatives (Startblokka, 2023a, 2023b). Both Godsen and Startblokka are former industrial buildings made available for temporary use with a sustainable image. Both initiatives take part in the process of transforming former closed off areas into vibrating social platforms and future neighborhoods inviting stakeholders from the public, private, non-profit and community sector to be involved in the process of developing a quality place commencing with low-cost, short-term initiatives with a social, cultural, artistic and circular vibe that aims to create a positive impact and add property value (Bane NOR Eiendom, 2023c; Evas Grønne Hage, 2022a; Startblokka, 2023a; Wyckoff, 2014).

Throughout this thesis the term “placemaking” parts from the standard definition presented by Wyckoff (2014), and uses elements of both creative and tactical placemaking. The term is related to the development of Godsen as a new social platform for the future neighborhood Godsløkka, and the temporary use of a previously abandoned building of heritage value in the placemaking process.

2.3.4 Gentrification

When transformation of urban areas occurs and green spaces are developed, a change in popularity and use of the area may lead to changes in property and housing prices and future gentrification (Immergluck, 2017; Wolch et al., 2014). “Gentrification is the unequal, upward societal transformation of urban space” (Gray & Wyly, 2020, in abstract). A gentrified neighborhood is frequently dominated by high-income families living in renovated and modernized houses. A neighborhood originally dominated by working class and low- or middle-income families, changes step by step during the gentrification process where urban areas are renovated, developed and greenified (Shlay & Balzarini, 2015). Gentrification can happen as a consequence of capital investments and remodeling of houses, or because of a cultural development of an area when artistic-minded professionals, offering knowledge- and service- based economies, move into formerly industrialized central areas and make the area

more attractive (Sbicca, 2018). “Exclusionary displacement” happens when a household vacates a dwelling and “another similar household is prevented from moving in” (Marcuse, 1985; read in Phillips et al., 2021) because of gentrification. “Exclusionary pressure” is the process including exclusionary housing markets where housing prices increase and dwellings that were available to one income group, are now available to a group of higher income (Cavicchia, 2022).

According to Cucca et al. (2023, p. 283) “green gentrification” is “the process leading the implementation of an environmental planning agenda displacing or excluding the most economically vulnerable population”. Green transformation of former railway property, like the High Line in New York, is often followed by increased property value (Wolch et al., 2014). A study of the effect of housing value in the proximity to the Atlanta Beltline, a urban development project where former railway property has been developed into trails and green areas connecting 45 neighborhoods, shows clear signs of gentrification and the need of measures to provide housing for low-income families to prevent displacement and secure that existing residents can choose to continue to live in the neighborhood (Immergluck, 2017).

A study of UA in Detroit, shows that existing community gardens don’t appear to be connected to gentrification, but the study finds an unequal distribution of community gardens with more gardens in richer areas (Hawes et al., 2022). In Denver, Colorado, sustainable UA initiatives supported by the private sector, civil society or governments have led to green gentrification where existing residents and urban farmers experienced the risk of displacement due to sustainability initiatives and changes in food system goals (Sbicca, 2019). When property developers combine the economic and cultural drivers and use UA to attract new residents, UA can lead to gentrification (Sbicca, 2018). According to Sbicca (2019) UA can lead to green gentrification after an economic recession when property value and rent cost increase. This may lead to losses for urban farmers unable to cover increased rental costs for their produce. Developed UA initiatives often offer cultural and social capital that might be exploited by property developers to convince visitors that the neighborhood is an appealing place. Local governments have the possibility to regulate areas for urban farming in area plans and regulatory plans. It’s important that local governments secure long-term access to land for UA initiatives and provide stability for UA actors. It’s essential that local governments adopt specific policies to protect UA land and secure faire wages for professional food producers and UA actors who answer to social needs in the community. If local governments do not use their influence and political power, UA can lead to green gentrification and prevent sustainable development and inclusion in the community. If UA

tools are used to promote sustainability without necessary policies, it can undercut local actors and prevent low-income consumers from access to UA produced food (Sbicca, 2019).

Another factor of gentrification is “food gentrification” where food that used to be accessible to low-income families gets trendy and prices increases. As food is culturally important and essential for local community development, food gentrification may affect social inclusion and lead to social division. In addition to the increase in housing costs, increased food prices may make it even harder for original working-class residents or vulnerable groups to stay in an area (Sbicca, 2018).

In a Norwegian setting, an autobiographical narrative about life at Bjerke in Oslo during the last thirteen years, disclose the reality of having to leave the neighborhood due to higher housing prices when the health situation requires the author to move to an adaptable home due to a disability. Living with a disability, as a homosexual, former victim of bullying and of working-class origin, the author expresses concern about whether the neighborhood, and the surrounding city district of Bjerke, will become the next one where those who are slightly different or vulnerable disappear from the cityscape. In a city district which has been, is and will be, the subject of intensive urban development, including the transformation of littered gray areas into award-winning parks with daylighted streams and edible plants, signs of gentrification are starting to manifest and measures to prevent negative effects of gentrification are called for (Dronninga Landskap, 2019; Hatterud, 2023).

The concept of social inclusion and different tools to secure inclusive environments that incorporate the needs of vulnerable members of society will now be explored further.

2.4 Social inclusion

To investigate how an inclusive environment for all citizens in the region may be secured (Main topic and RQ3) and how a RCUA can contribute to limit social vulnerability (RQ2), the concept of social inclusion is explored. The “2030 Agenda for Sustainable Development” states fostering social inclusion as determinant to sustainable development (United Nations, 2015, p. 5). The word “inclusive” is an integrated part of many SDGs, and the concept incorporated throughout the 2030 Agenda, implicating the need for inclusion to obtain sustainable development (Silver, 2015; United Nations, 2015). National strategies in Norway aims to develop green and inclusive cities and places through open-source development based on citizen participation (Norwegian Ministries, 2021). UA tools have been identified as suitable to secure an inclusive environment and facilitate a sense of

belonging through social participation and integration and prevent exclusion (Duchemin et al., 2008; Norwegian Ministries, 2021).

Social inclusion is defined by the World Bank (n.d.-a, top of page) as “...the process of improving the terms on which individuals and groups take part in society - improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity.” Social inclusion is seen as important for social development because it empowers people and makes institutions accessible to the population (World Bank, n.d.-b). The social dimension of inclusion is about the actual possibility to participate and be an integrated member of the social community and develop social relationships with others (Nilsen, 2017 read in; Statped, 2022). The concept of social exclusion is a dynamic, multidimensional and relational process where groups or individuals are blocked or denied full access to areas for social inclusion (Levitas, 2000). Drammen Municipality aims to be an inclusive society. The municipality facilitates inclusion through equality measures, activities for participation and accessible common spaces (Drammen Municipality, n.d.-c).

2.4.1 Multiple factors and areas for social inclusion and exclusion

There are multidimensional factors of social inclusion and exclusion. Figure 6 visualizes a selection of identities and topics that can be the reason for social exclusion from one or several groups.

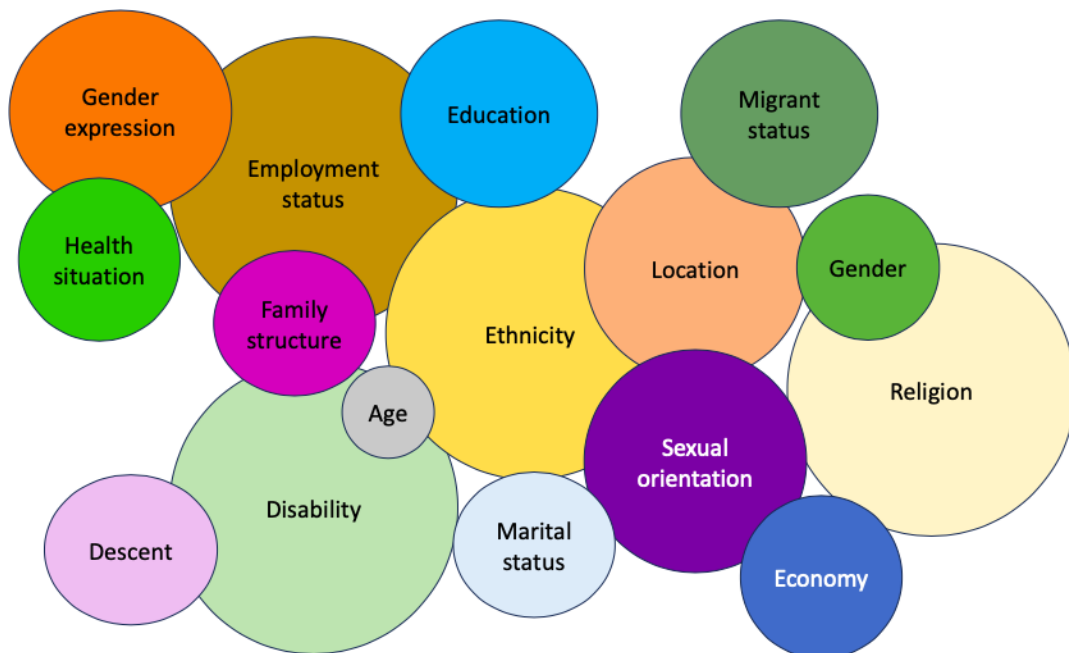


Figure 6 A visualization of examples of identities and topics reported to cause social exclusion

Source: Elaborated by author based on figures and tables in “Inclusion matters: The foundation for shared prosperity” (World Bank, 2013)

Members of society can experience exclusion with unequal access to resources, participation and denial of opportunities because they are identified as strangers by the group. An individual can be identified as different, a stranger, when not accepting or adopting to group rules (Durkham, 1893; United Nations, 2016; World Bank, 2013). One individual, or a group of people, can be represented by one or several of the identified current life situations or identities, and exclusion can be based on multiple factors. Exclusion can happen at home, at school, at work or at community level where individuals may be excluded through practices or behaviors from formal and informal institutions. As individuals have overlapping identities, and groups tend to be very heterogeneous, one can be excluded by a group because of another identity or current life situation than the one accepted by the group. Involving cultural, political, economic, and social dimensions, social inclusion is multidimensional (World Bank, 2013).

Participation at various levels of society is crucial for social inclusion. Figure 7 visualizes the importance of being included in different spaces, markets, and services to fully appreciate potential opportunities, and how different areas are related. For an individual or group to achieve social inclusion it is necessary to be included at all levels (World Bank, 2013).

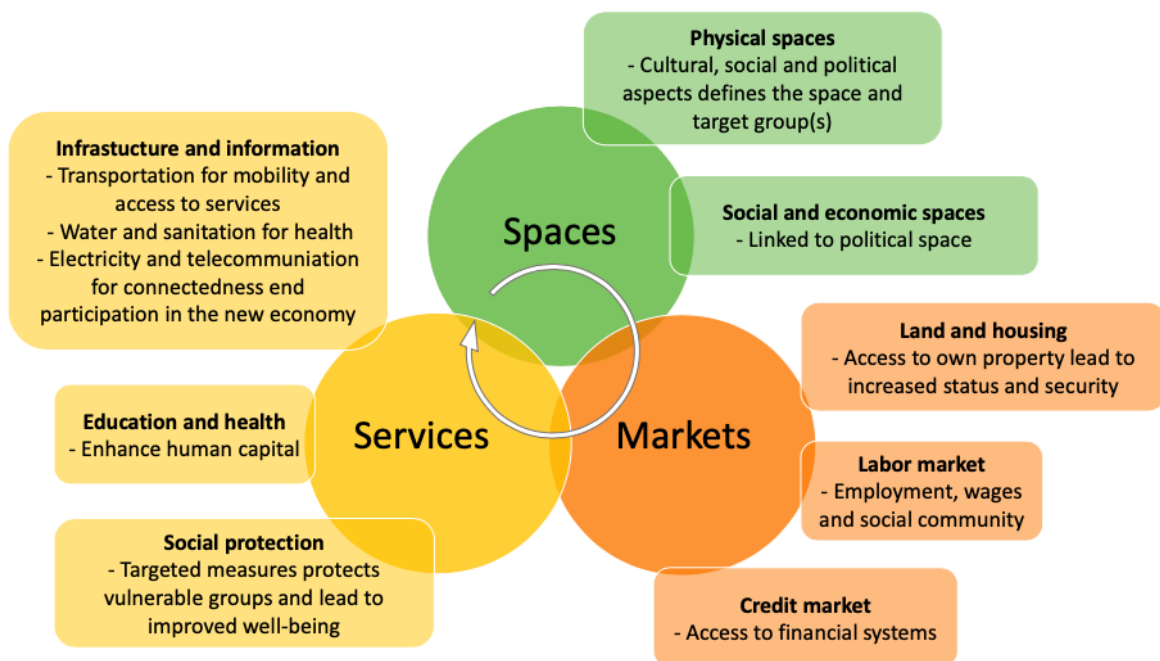


Figure 7 Areas for social inclusion (and exclusion)

Source: Elaborated by author based on figure 3.1 in "Inclusion matters: The foundation for shared prosperity" (World Bank, 2013, p. 92)

The liberty to access physical, social, and economic spaces enable participation in cultural, political, and social discussions and activities and allow individuals and groups to see and be seen, express individual and group opinion and take part in decision making. Equal access to the labor market, with the possibility of employment and just wages, the right to credit and the possibility to own property creates increased security and status and facilitates access to other spaces. Access to services is essential to secure basic needs and to enhance human capital through equal access to information, mobility, and participation. Combined, access to, and participation in these areas facilitate participation in society (World Bank, 2013).

During the last century urbanization has caused a dramatic transition offering the possibility for social mobility and opening new opportunities for individuals and groups (World Bank, 2013). To achieve social inclusion both a universal approach to social policies and action at all levels in society are necessary. Improving access to opportunities, boosting the feeling of dignity, and strengthening abilities to facilitate equality using general and targeted measures enable positive impact on social inclusion (United Nations, 2016). Another aspect of social inclusion is to prevent social exclusion (World Bank, 2013). Harassment can happen in different forms and can be based on identities or life situations like the ones identified in Figure 6 (United Nations, n.d.; World Bank, 2013). According to Mougeot (2006) many UA participants suffer from harassment, especially women and poor farmers. If harassment happens it is important to have functioning systems and implement necessary actions to ensure that everyone can participate in a safe, inclusive and respectful environment (Drammen Municipality, 2022b; United Nations, n.d.).

Duchemin et al. (2008) found that UA initiatives encourage diversity and foster social support. Working side by side in a garden creates a common ground and acceptance of people of diverse identities and life situations and stigmatization is avoided. Although not able to feed the entire city of Montreal, the study shows that UA contributes to social development in neighborhoods. Two case studies from Norway shows that UA initiatives facilitates integration and social inclusion across social and cultural differences across the country (Lydersen, 2020; Wong, 2021).

2.5 Food security

To investigate how an RCUA may contribute to limiting food poverty, several aspects of food security are being explored. The Rome declaration on world food security defines food security as “Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” (United Nations, 1996, p. 2). Further on FAO states that food must be safe to contribute to good health and food security and defines food safety as “...a science-based discipline, process or action that prevents food from containing substances that could harm a person’s health. Food safety aims to have food that is safe to eat.” (FAO, 2023a, top of page).

FAO identifies UPA as one of the most important strategies to build resilient cities and secure food supply within urban areas (FAO, 2023b). The second SDG “Zero hunger” aims to “End hunger, achieve food security and improved nutrition and promote sustainable agriculture” (Jensen, 2022; United Nations, 2015, p. 14). According to “The Sustainable Development Report 2022” (Jensen, 2022) inequalities, conflict, climate change and the COVID-19 pandemic are threatening food security. Both hunger and malnutrition effects the growth of children causing overweight, wasting (low weight for height) or stunting (low height for age). Countries affected by high food prices have increased from 16 percent in 2019 to 47 percent in 2020 (Ehui et al., 2022; Emediegwu, 2022; Kammer et al., 2022). Incidents like the termination of the Black Sea Initiative in July 2023 have led to increased food prices and are considered to threaten global food security (United Nations, 2023).

In Norway the Consumer Price Index (CPI) for “food and non-alcoholic beverages” shows an increase of 6.5 percent from December 2021 to December 2022. As shown in Table 4 the price of food has increased more than beverages in the last three years. The increase in food prices is significantly higher for 2022 than previous years. Updated data for June 2023 shows an additional increase with an annual change in CPI for food and non-alcoholic beverages of 13.4 percent, while the basic amount of the National Insurance Scheme, which most social benefits are based on, increased 6.41 percent (as of May 2023) (KLP, 2023; Statistics Norway, 2023c). This may lead to a larger proportion of the monthly budget going to the purchase of food as many depend on social benefits.

Table 4 Annual change in CPI 2018-2022 in percent

Selected groups	2018	2019	2020	2021	2022	June 2023
Food and non-alcoholic beverages	2.5	1.0	3.2	-2.0	6.5	13.4
Food	2.4	1.0	3.7	-1.2	6.6	

Sources: Statistics Norway (2023d; 2023f)

Table 5 shows the percentage change of CPI for selected food groups and products, many of which can be produced locally through UA. The calculated average showing the percentage change of CPI for fruit, vegetables and their secondary products shows an increase of 8.4 percent and is higher than the general increase on food prices (6.5 %). This increase makes it more expensive to buy many vegetable- and fruit-based products than other food products or beverages. Prices of fruit- and vegetable juices increased by 3.8 percent in 2022, while soft drink prices decreased by 0.9 percent, making it harder for low-income families to choose the healthier option (Statistics Norway, 2023f).

Table 5 Annual change in CPI for selected food products 2018-2022 in percent

Selected products	2018	2019	2020	2021	2022
Fruit (fresh and chilled)	7.3	3.9	9.1	-7.2	5.0
Fruit (frozen)	5.0	7.2	6.3	10.3	18.6
Fruit (dried) and nuts	1.2	1.5	3.9	-2.1	3.0
Fruit-based products and preserved fruit	-0.1	12.2	11.8	8.3	22.5
Vegetables (fresh or chilled, excl. potatoes/tubers)	5.6	4.5	8.3	-3.7	6.2
Vegetables (frozen, excl. potatoes / tubers)	2.7	4.9	-0.3	7.4	4.6
Vegetables (dried, processed or preserved)	1.4	3.6	2.5	0.8	7.2
Potatoes	2.7	2.6	4.1	-1.5	5.4
Marmalade, jams and honey	5.1	2.1	5.1	-0.6	10.3
Culinary herbs, spices, salt	-0.3	2.0	3.8	0.3	5.6
Vegetable and fruit juices	2.1	-0.7	0.0	-1.3	3.8
Average selected products	3.0	4.0	5.0	1.0	8.4

Source: Statistics Norway (2023f)

Food security implies access to food while nutrition security addresses the nutritional content of food. During the last fifty years increased agricultural production levels have secured access to food for a growing population, but malnutrition and obesity are a concern (Fanzo et al., 2018; Ingram, 2020). Malnutrition is an important factor for overweight and is seen as a threat to nutritional security. It may be an increasing issue for families where fresh and nutritious food is replaced by unhealthy food (Jensen, 2022, p. 29). As prices increase implementing UA can both improve access to healthy food and encourage healthy eating habits especially for families facing unsafe conditions regarding food and nutrition (City of São Paulo, 2016; Nagib & Nakamura, 2020). According to Orsini et al. (2014) vegetable production on roof tops in Bologna could satisfy 77 percent of the inhabitants vegetable needs.

2.5.1 Access to food in times of crisis

In Norway one of the main goals with UA is to increase the populations knowledge about sustainable food production and improve the country's preparedness and food safety. Through education and practice the population will acquire cultivation skills and learn how to take care of the soil. This development will improve the population's access to local and healthy produce (Norwegian Ministries, 2021).

Drammen Municipality follows recommendations and contingency plans developed by national authorities (Drammen Municipality, n.d.-a). The Norwegian Directorate for Civil Protection (DSB) analyzed the risk and vulnerability of Norwegian food supply if certain scenarios occur in 2017. At the time importation of food and functioning international food- and trade systems were given as a prerequisite to secure food supply to the Norwegian population, if events preventing importation occurred, food supply could be met by challenges (DSB, 2017). As of 2023 circumstances have changed due to a pandemic, climate change, a change in the international security situation etc., and a review of the national contingency requirements states a need to prepare for an uncertain future and an adjustment of import, export, and storage policies (NOU 2023:17).

Contingency plans are made to prepare for possible crisis (Nordrum, 2021). In NOU 2023:17 food supply has been identified as a main factor for contingency planning, and food production and food safety measures as crucial preparedness. It is important to maintain knowledge regarding food production and general preparedness in the population, and secure systems for food distribution to vulnerable groups at municipal level. If a crisis is to occur it is important to reduce food waste to a minimum, adjust production and strengthen food storage. To be able to do this in a quick manner, it's necessary to prepare legislation, policies and strategies, and practice before a crisis occurs (NOU 2023:17).

Historically a crisis usually occurs unexpectedly, and this makes preparedness in the population important. In Norway the population has had access to food during decades, but during World War II scarcity of food evolved and measures were implemented to increase local food production (Nordrum, 2021). According to Østlie (1942) the conditions in 1942 forced the population to cultivate every vacant spot of land for cultivation and UA was encouraged.

With a self-sufficiency degree of 45.9 percent in 2021 (Helsedirektoratet, 2022, p. 28), events that reduce access to imported produce are expected to affect the availability of vegetables to the Norwegian population. If a future food crisis occurs measures to encourage local food production will be necessary. An increased level of knowledge in the population of how to grow vegetables will improve the Norwegian preparedness and make it easier for the country to adapt if a crisis occurs. UA is one way to preserve and expand the knowledge of growing food locally (Nordrum, 2021). Within UA, the concept “edible park” aims to strengthen urban food production in a local socioeconomic setting. Based on a sustainable production model, agroforestry systems provide healthy food of high quality to local consumers while stimulating social UA activities and contributing to reducing environmental impact from food production (Porcelluzzi, 2021).

2.6 Governance, important actors and stakeholders

To respond to the main research topic “By focusing on the case study of Godsen, the thesis will investigate how a RCUA can provide multidimensional tools for social development at regional level?” and RQ1 “What is the agency of different stakeholders in the development of Godsen as a regional center for urban agriculture?”, it is necessary to identify stakeholders and actors, and explore the governance concerning UA initiatives.

Freeman (2010, p. 46) defines stakeholders as "...any group or individual who can affect or is affected by the achievement of the organization's objectives". Different definitions of stakeholders are used in the literature from wide to specific definitions with various levels of inclusion (Bryson, 2004). Buser (n.d.) introduces the analysis of actors as important for transdisciplinary research on societal topics to understand the constellations of multiple actors with different interest, roles and power, and defines actors as "...persons, groups, or organisation (sic) acting within a system of interest" (Buser, n.d., 2nd paragraph). For this thesis stakeholders are defined as "a group or individual who can affect or is affected by the establishment of a RCUA at Godsen and the transformation of Nye Nybyen". Actors are defined as "stakeholders who are collaborating to develop the RCUA, Godsen and the transformation of Nye Nybyen".

Dubbeling et al. (2010) states the importance of a better understanding among institutions and authorities on how UA can contribute, and the need for UA to be implemented in policies and strategies at all levels. In Norway UA was given its own strategy on national level in 2021 where improved understanding and cooperation between stakeholders is identified as crucial to implement and follow up on UA initiatives. (Norwegian Ministries, 2021). A few Norwegian cities and local governments have proper strategies on UA promoting cooperation (Bergen municipality, 2019; Oslo municipality, 2019). Drammen does not have a specific strategy for UA (Drammen Municipality, n.d.-b).

As UA may provide tools contributing to several areas of sustainable development (Duchemin et al., 2008), interventions and policies may integrate UA and benefit from its social, economic and ecological perspectives and design differentiated programs suited for different areas of a city. If local conditions and priorities are to be responded, participatory development is needed to answer specific needs and achieve a mix of different perspectives appropriated for the specific area of the city (Dubbeling et al., 2010).

Local, and national, governments have several instruments to support UA (Table 6) and influence stakeholder behavior including instruments within legislation, urban planning and design, education (communication) and economy.

Table 6 Governmental instruments to support UA

Instrument	Assumptions	Challenges for UA
Legislation	<ul style="list-style-type: none"> - Actors may be forced to adopt to desired behavior through legal norms and regulations. - Possible to control whether norms and regulations are followed. - Possible to sanction actors who do not follow norms and regulations. 	<ul style="list-style-type: none"> - Multisectoral character complicates implementation of projects due to contradictions between sectors. - Cost of controlling mechanism can lead to a low level of control and unequal treatment of stakeholders.
Urban planning and design	<ul style="list-style-type: none"> - Certain design of physical environment makes people adapt to desired behavior. - Litter box access or reserving urban areas to grow food, will lead people to throw litter in the boxes and grow in the city. 	<ul style="list-style-type: none"> - Reservation of property to specific use, like growing food, can lead to conflict regarding alternative use of spaces.
Education	<ul style="list-style-type: none"> - Well informed people and groups will adopt to desired behavior. - Technical training, education on healthy food, growing plants and preparing food leads to changes towards desired behavior within UA. 	<ul style="list-style-type: none"> - Courses, pamphlets, websites, visits etc. need to be designed according to the target group(s). - Existing policies and other instruments should be implemented.
Economy	<ul style="list-style-type: none"> - Stakeholders will adopt a desired behavior if receiving economic benefits like tax reduction etc. 	<ul style="list-style-type: none"> - Difficult to follow through if the cost gets too high if used by many. - Social inequality may happen if it is not possible to secure vulnerable groups as the target and receiving group.

Source: Dubbeling et al. (2010)

A mix of instruments are common within UA in urban areas. When it's difficult to use general legislation due to the multisectoral character of a UA initiative, voluntary agreements can be applied to specific groups and users of one area where certain behavior is wanted. The use of different instruments including multistakeholder processes, and a combination of different tools, may be used to achieve sustainable urban development and implement measures in policies and strategies to secure sustainable UA initiatives in urban and peri-urban areas. Safe and sustainable UA may be achieved through creation of a conducive policy environment where UA is an accepted use of property and include UA in climate change adoption, measures to secure health and environmental effects of UA, promoting gender equality and social inclusion, enhancing UA productivity and economic viability and enhance access to vacant urban spaces (Dubbeling et al., 2010).

2.7 Concluding remarks

The theoretical framework introduced in Chapter 2 is based on an inter- and transdisciplinary approach to answer the main topic. Through a literature review UA and four additional topics are explored. An introduction to UA and its multifunctional aspects is presented, followed by an introduction to urban development, social inclusion, food security and governance and important actors and stakeholders. These disciplines were selected because they are considered individually and jointly important to answer the research questions. Each field is explored in a UA context and the development of former railway property is considered in the literature selection. The selected discipline's part from the sub-research questions.

As this investigation is the final work to complete the inter- and transdisciplinary master's degree in urban agriculture, the theoretical framework incorporates several disciplines. To fit the framework of a master thesis, each field is introduced briefly in the context of the research questions. As several disciplines are selected a general approach is used for the exploration of each field where international, national, regional and local strategies are identified before a review of academic literature relevant for the case study is explored.

An inter- and transdisciplinary approach is selected because UA involves multiple disciplines (Dubbeling et al., 2010). Because of this, the development of Godsén and a RCUA is considered to depend on multiple disciplines to succeed. Additionally, the selected disciplines urban development, social inclusion, food security and governance are considered to have multiple dimensions (Jensen, 2022; United Nations, 2015; World Bank, 2013). As the

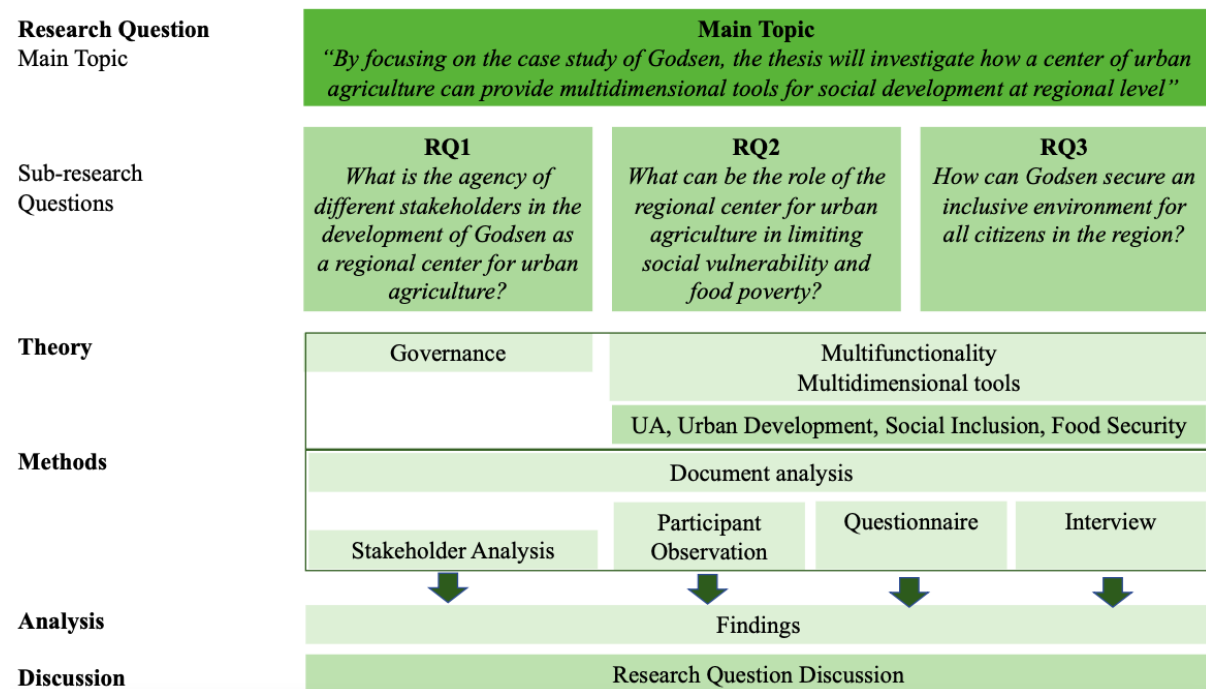
present case study aims to contribute to research by providing an example on how UA tools can be used to secure social inclusion when a former closed off railway property is to be developed into a new central neighborhood, a transdisciplinary approach is considered the most comprehensive approach.

In the following chapter the methodology used during the investigation will be presented.

3 Methodology

The case study of Godsen part from the research questions, the selected transdisciplinary approach and the literature review. This is reflected in the selected methodology where mixed methods are used throughout the investigation and to analyze data (Clark et al., 2021). In Chapter 3 methods used for data collection and analysis are presented including a theoretical approach to methodology and a presentation of what has been done throughout the investigation. Table 7 show an illustration of the research structure.

Table 7 An illustration of the research structure



The research structure part from the theories and concepts presented in Table 1, and shows how the final discussion is based on the findings which part from the selected methods. The methods are used to help to answer the research questions within the theoretical framework.

As the present investigation is a case study, an introduction to this framework and selection criteria is presented followed by a presentation of the mixed method approach including quantitative and qualitative data collection. Finally, a description of the data analysis is presented.

3.1 Case study

The investigation is designed as a case study to explore the selected case of Godsen and how a RCUA can provide multidimensional tools for the development of the new neighborhood Godsløkka, the city of Drammen and the surrounding areas. The case study is not a method by itself (Clark et al., 2021), but provides framework for the investigation as well as functioning as a representative case that exemplifies how urban agriculture may provide tools for social inclusion, when a former railway property is being released for city development projects located in or nearby a city center. The objective of selecting a case is to apprehend how a RCUA can provide multidimensional tools for social development (Clark et al., 2021; Yin, 2009).

Choosing Godsen as a specific case facilitates an in-depth examination of the establishment of this specific RCUA using an idiographic approach that focuses on qualitative data and individual opinions and experiences. For this case study the selection of Godsen is both significant to understand the possibilities for Nye Nybyen, Godsløkka and Drammen, but it is also interesting to understand how a RCUA can provide tools for food security and social development in general (Clark et al., 2021).

How and why Godsen was selected for the present case study is explored further below.

3.1.1 Selecting the case

During the process of selecting the case, several city development projects on former railway properties around Europe were identified, including Chamartín Station in Madrid, Porta Nova in Milan, and Region City in Gothenburg. Each of these projects were analyzed and considered for a comparative study.

A particular case study was chosen to allow in-depth research within the limited time frame of the master thesis. Allowing the study to focus on preselected topics identified in the sub-research questions: Governance and stakeholder analysis, food security and social inclusion.

The case of Godsen was chosen in the aftermath of a student assignment in February 2022, where a group of students worked together with EGH to make a proposal for an urban garden in front of Godsen (Koldingsnes, 2022). This cooperation was the starting point to develop the current research project.

The initial research topic was citizen participation in the city development project Nye Nybyen. During the literature review, and wanting an UA approach, the topic was narrowed

down to the development of a RCUA at Godsen in the context of the development of the new neighborhood. To further adjust the investigation's workload, it was narrowed down to the selected research questions pointing out food security and social inclusion as specific areas where urban agriculture can have an important effect.

A review of social and economic conditions of the municipal city district "Strømsø below the Vestfold railway" (Strømsø), revealed several socioeconomic challenges etc., that has resulted in the selection of Strømsø as a participant in an area-based initiative (områdesatsing) (Departementene, 2020; Ruud et al., 2022).

Further on an internship at EGH from September 2022 to July 2023 opened the possibility for the master student to be introduced to important stakeholders and gain access to project documents and inside project information through participation in project meetings and activities.

Godsen, and Nye Nybyen in Drammen, were chosen due to the social conditions and the prominent level of interest of cooperation both from EGH and BNE. Hence the possibility of gathering information and being introduced to relevant informants and facilitate data recollection.

3.2 Collecting data

The research conducted for the elaboration of this thesis has used an inductive approach, an iterative strategy and mixed methods, moving back and forth between theories and data to make sure the theories are adequate, and combining qualitative and quantitative methods. Mixed methods have been used to add value to the research by combining statistical data with a questionnaire and qualitative interviews and observations. Using a convergent design, quantitative and qualitative data has been collected simultaneously and has been given similar priority. Mixed methods have made it possible to compare results and double check them through triangulation and get more complete answers (Clark et al., 2021).

Data collection has taken various forms during the mixed-methods research. Quantitative data has been collected through official data published by the public sector, previous investigations and studies carried out by different researchers and consultants in Strømsø and Drammen, as well as research done by collaborating partners of BNE during the preparations and development of Nye Nybyen. Qualitative data has been collected during field work in Drammen and interviews with experts from other locations in Norway. A description of the main quantitative and qualitative methods used during the investigation is presented below.

3.2.1 Quantitative data recollection

The quantitative data recollection has been used for the literature review in the selection of articles for content analysis, statistical analysis for background information, reporting on key informants, informants, and field work activities, and through a questionnaire, and is complementary to the qualitative research conducted (Clark et al., 2021).

3.2.1.1 Statistics

Official statistics have been used to analyze demographic and economic factors and set the ground for the investigation. Food and housing prices have been analyzed as a background to the relevance of the study, while demographic and other economic data describes the past and current situation of the area. Secondary analysis of data from previous studies has been used both to understand the current situation, and as complementary to data collected by the researcher during field work (Clark et al., 2021). Additionally, statistical data on housing prices in Nybyen was collected by the researcher from Finn.no and compared to official data.

The use of official statistics is cost and time-effective and provides data from a large proportion of the population generating a more complete image. The use of data collected by other researchers provides an amplified set of data compared to what one single master student could collect during field work. The use of statistical data collected by others also functions as complementary to other data collected (Clark et al., 2021).

3.2.1.2 Questionnaire

A self-completion questionnaire was developed to complement the results of the literature review, field work notes and semi-structured interviews. The questionnaire (Attachment 2: Questionnaire with results (Questionnaire)) was administered through email and published online. An information sheet with a QR code was printed on a poster and hung on different locations at Godsen: Outside, next to the future garden (Figure 8), toilets and several doors inside the building, Attachment 3: Poster promoting the questionnaire (Clark et al., 2021).

The questionnaire was elaborated to reach out to more and unknown respondents, to make it convenient for respondents as they could complete the questionnaire when and where suited them better, to open up to anonymous answers free from interviewer effects, and to facilitate the administration and posterior data analysis (Clark et al., 2021).

Both closed and open-ended questions were used. Some questions were compulsory, while others were optional. For some questions the respondent was sent directly to another section according to their answer. A mix was used to make it easy for respondents to finalize the questionnaire, as well as securing data for the investigation (Clark et al., 2021).

Advantages and disadvantages of using an anonymous questionnaire were considered. The lack of possibility to clarify doubts, follow up with additional questions to get more information, securing the completion of the form, possible exclusion of respondents due to the chosen format, omittance of questions and low response rates, quantity of questions, as well as the possibility to reach more respondents, were considered when elaborating and distributing the questionnaire. However, since the questionnaire was complementary to semi-structured interviews, many disadvantages were considered compensated for by the interviews. To encourage respondents to finalize the questionnaire an introduction explaining the objective, pictures were used to make it more attractive, and it was timed to last 5-7 minutes with brief questions with several yes / no or multiple-choice answers. Open-ended questions were optional (Clark et al., 2021).

To reach relevant respondents EGH collaborated to distribute the questionnaire. Additionally, contacts obtained during field work were asked to distribute the link to e-mail lists and on social media, and the questionnaire was sent to members of “Konnerud Strømsgodset Hagelag” (a local horticultural society) and published on the Facebook page of “Nærutvalget Strømsø – Grønland, Marienlyst, Brandengen og Tangen” (Nærutvalget Strømsø). Initially the idea was to distribute the questionnaire broadly and publish it massively on social media, but the strategy changed during field work because several informants reported on massive research approaches from different origins with little visible



Figure 8 Poster promoting the questionnaire next to the future garden at Godsen

Photo: Maria Trettvik

results for the participants, and that neighbors and local stakeholders were “tired of” questionnaires (Clark et al., 2021; Field notes, 2023; I04). Due to this information the distribution of the questionnaire was reduced, and the consequences of a reduced number of responses considered. Access to previously conducted surveys was considered to compensate for a reduced quantity of responses (Clark et al., 2021). The questionnaire was distributed on different platforms with several weeks in between, with each distribution 0-7 responses were registered. Sixteen responses were received, but several hundred received the link.

The quantitative research conducted during the investigation is complementary to the qualitative research and specific methods used are defined together with methods for qualitative data recollection (Clark et al., 2021).

3.2.2 Qualitative data recollection

Qualitative data recollection methods have been implemented throughout this investigation. Participant observation and an action research approach were used during field work, texts and documents were collected and analyzed for the literature review, photos taken for documentation and qualitative interviews conducted. The questionnaire includes open-ended questions for qualitative data recollection complementary to the semi-structured interviews. Collected data has been interpreted to collect more data using both qualitative and quantitative methods (Clark et al., 2021). The qualitative data recollection methods used are presented below.

3.2.2.1 Participant observation

During the investigation elements of ethnographic and participant observation were used. An overt strategy was adopted to be invited and get access to closed meetings, relevant and unpublished documents and to secure ongoing access during the investigation. Field notes were taken during the entire master thesis process to help register information, identify the researcher’s observations and interpretations, and to be able to analyze the development later. Field notes were taken in a notebook, messages to self on the phone, mental notes and as scratch notes added to the notebook later. Photos were taken with a cell phone camera to document UA installations in Drammen, current cityscape, housing types, the development of Godsens and different tasks and stages of the investigation etc. (Clark et al., 2021).

From March to August 2022 both BNE and EGH were contacted several times to investigate their interest in a research project like this master thesis, and to identify the possibilities of an internship in one of the two organizations to get inside information for the project and access to relevant documents, meetings and events.

An internship agreement was made between EGH, and the master student collaborated with EGH from September 2022 to July 2023. Through the internship the master student participated in internal and external project meetings, as well as meetings about other topics with relevant stakeholders and thus achieved both physical and social access and acceptance within several groups with relevant informants. Through their support representatives from EGH and the project management at BNE functioned as important advocates and gatekeepers securing trust and acceptance and providing access to informants. A direct effect of these introductions and support was to be recognized by stakeholders at public and open forums and thus introduced to other stakeholders and possible informants leading to an expanding network of stakeholders and informants (Clark et al., 2021).

Clark et al. (2021, p. 400) identifies six field roles and participation in ethnographic research. During fieldwork separate roles were identified and used in different settings. Identified roles are described in Table 8.

Table 8 Identified roles during fieldwork with descriptions

Role	Description of the researcher's role
Overt full member	Integrated member of the project team (intern) in EGH and participating in public and closed meetings with known status.
Participating observer	Observing participant during meetings between EGH and potential stakeholders.
Partially participating observer	Through the internship and invitations to meetings, the researcher had access to agendas, agreements, the project archive and access to documents without having carried out the research or participated in the elaboration.
Minimally participating observer	Through participation in events and local activities the researcher has obtained access to documents and informants.
Non-participating observer with interaction	Interviews conducted with representatives of the local community.

Source: Clark et al. (2021)

During the internship, the researcher was usually introduced as “student”, “intern”, “researcher” and / or “former project manager”. The introduced role depended on the setting and could be overlapping. The main roles were “student” and “researcher”, “intern” and “project manager” and were often chosen together with EGH ahead of external meetings to add credentials (Clark et al., 2021).

Action research is an approach where the researcher collaborates with other members and participates in the process to diagnose problems and develop solutions in a collaborative way through different processes initiated by the researcher (Clark et al., 2021, p. 367). As an intern in EGH, and overt full member as an integrated member of the project team (Table 8), the researcher initiated several processes and collaborated on different development tasks. Throughout the internship several administrative tools were suggested and developed, and suggestions related to procurement and tender processes, project management, and event management were presented and developed by the researcher.

Through the action research approach the researcher might have affected the development of both Godsen and the RCUA. In the case of the present investigation, an action research approach is seen as beneficial because active participation through brainstorming, document development and other actions were much appreciated by collaborative partners and this positivity expanded the scope for participation.

3.2.2.2 Stakeholder analysis

To respond to RQ1 “What is the agency of different stakeholders in the development of Godsen as a regional center for urban agriculture?”, methods presented by Bryson (2004) on stakeholder identification and analysis techniques have been used. An identification of who the stakeholders are, what role they play, how they are affected and their influence, are seen as important factors to analyze the agency of each stakeholder.

Bryson (1995, p. 71-5, read in Bryson, 2004, p. 29-30) describes basic stakeholder analysis techniques. An adoption of the techniques has been used in the identification and analysis of stakeholders and implies to:

- Make a list of potential stakeholders using brainstorming.
- Analyze each stakeholder separately.
- Make a list of the chosen stakeholder’s probable expectations.
- Decide on what each stakeholder thinks.
- Identify and record how to follow up each stakeholder.

- Identify and record long-term issues with individuals or groups of stakeholders.
- Specify each stakeholder's level of influence of the process.
- Decide how each stakeholder can be beneficial to the development – what is needed from each one.
- Rank the list of stakeholders according to their importance to the organization.

Post identification and ranking, selected stakeholders were analyzed further to establish their influence and capacity of implementation and to identify important actors.

To establish stakeholders', influence a power versus interest grid can be used to discover which of the stakeholders must be included and which issues must be addressed for the project to be carried out (Bryson, 2004). Figure 9 shows different categories where stakeholders are placed according to their level of power and interest.

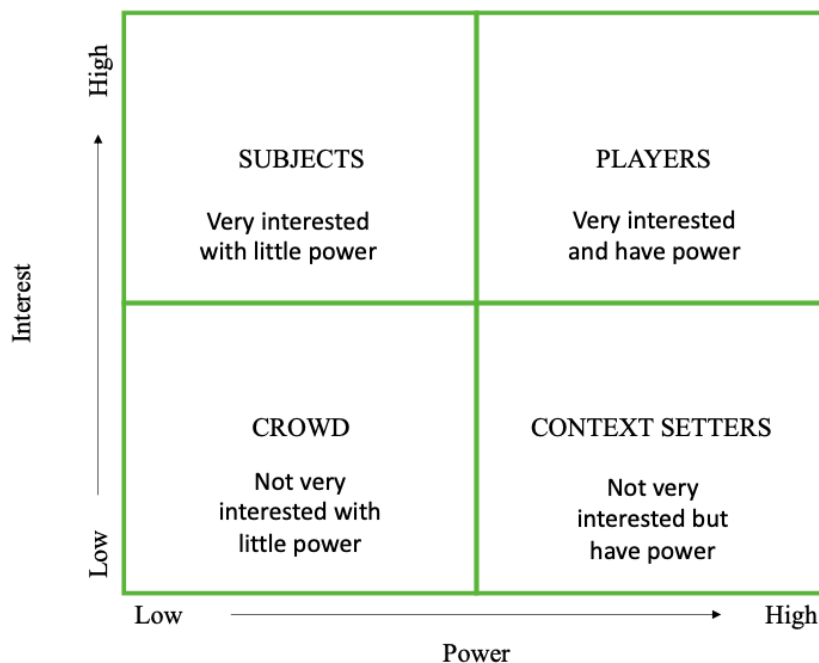


Figure 9 Power vs. interest grid

Source: Elaborated by author based on Eden and Ackermann (1998, p. 122) and Bryson et al. (2002)

When the stakeholder's power and interest levels have been determined, the relationship between stakeholders and how they influence each other can be analyzed to identify central and most influential stakeholders (Bryson, 2004). Techniques presented by

Eden and Ackermann (1998) includes influence diagrams where lines of influence are drawn between stakeholders with arrows identifying the direction of influence between the stakeholders.

Further on an analysis of selected stakeholders can be carried out in a “bases of power – directions of interest diagram”, Figure 10, where the stakeholder is analyzed according to its bases of power in relation to the selected issue to identify how the stakeholder can influence the development of the issue (Bryson, 2004).

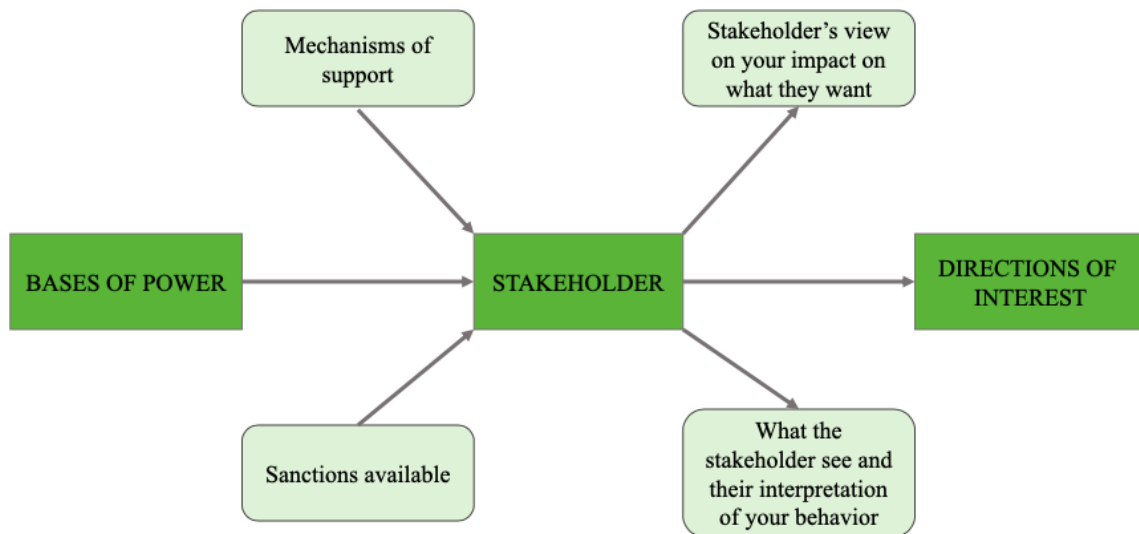


Figure 10 Bases of power - directions of interest diagram

Sources: Elaborated by author based on Bryson et al. (2002); Eden and Ackermann (1998) read in Bryson (2004)

As previously stated, important gatekeepers and advocates made introductions to stakeholders and possible informants which again led to other possible informants, many of which were identified at activities during field work. Relevant activities are listed in Attachment 4: Main activities during field work. A description of how the stakeholder analysis was conducted is presented in 3.3.3. A selection of stakeholders and actors is presented in 4.5.

3.2.2.3 Informants

Identified stakeholders have been used as the basis to select informants and key informants for the research. Stakeholders were identified during the entire research period, starting with initial meetings with representatives from BNE, followed by the identification of stakeholders during meetings, events and through documents relevant for the city

development project and the RCUA. Representatives from EGH and BNE functioned as key informants throughout the investigation, constantly sharing information and inviting them to meetings and activities (Clark et al., 2021).

To reduce the risk of being too dependent on a few key informants, prevent unwanted pressure on the investigation and to secure that several voices and different groups of stakeholders were represented in the research, informants were selected to be as representative as possible within the frame of a master thesis (Clark et al., 2021). The different identities identified in Figure 6 were taken into account to secure a representative group of informants (World Bank, 2013). Thirteen informants were interviewed, four of them representing two groups each. Table 9 shows a list of selected informants and the groups they represent. Specific informants are referred to as IXX (I01, I02...I13) throughout the thesis.

Table 9 Informants

Number of informants	Representing	Description
1	Property developer	BNE representative
2	RCUA coordinator	EGH representatives
6	External experts	Representatives from Nabolagshager (Neighborhood gardens), Bergen municipality, Bærekraftige liv – Løvestakken (Sustainable lives – Løvestakken), Drammen Municipality and Norwegian State Housing Bank (NSHB)
5	Neighbors / local citizens	High school students, parents, people working in the area, local coordinators of voluntary work and neighbors.
3	Local authorities	Drammen Municipality and Knutepunkt Strømsø (Strømsø City District). Advisors in the fields of UA, environment, agriculture, culture, and social activities

Chosen informants vary in age, gender, education, origin and field of work, with backgrounds from different sectors including vocational subjects, art, health, social sciences, city development, management, agriculture, education, architecture, and natural sciences etc. Semi-structured interviews of 15-90 minutes were carried out individually or in pairs.

A selection of experts from various locations in Norway was made to secure generality, and experiences from UA projects in Drammen, Bergen and Oslo are presented in the findings. The common denominator was that the experts had participated in UA projects in areas with area-based initiatives. Table 10 presents a list of area-based initiatives represented by the informants.

Table 10 List of area-based initiatives represented by informants during research

Area-based initiative	Municipality
Strømsø	Drammen
Fjell	Drammen
Solheim	Bergen
Loddefjord	Bergen
Oslo indre øst (Grønland and Tøyen)	Oslo
Groruddalen (Linderud)	Oslo

Sources: I04; I05; I10; I11 and I12

Additionally experience from Bragernes (Drammen) and Sankt Hanshaugen (Oslo) was shared during interviews (not area-based initiatives).

3.2.2.4 Semi-structured interviews

A semi-structured interview approach was chosen considering that the identified topic and research questions were clear when preparing the field work and interviews. Further on individual interview guides based on the general guide were prepared prior to each interview. The aim of the interviews was to explore the informants' opinions and feelings. The flexibility of the semi-structured interview approach, combined with the possibility to compare answers from different stakeholders, made semi-structured interview the chosen option (Clark et al., 2021).

Based on the topic and research questions, a general interview guide was prepared and sent to Sikt¹ for approval before the interviews were conducted (Attachment 5: Interview guide; Attachment 6: Information letter with consent form). The interviews were conducted at Godsen, at the informant's office or at an online meeting and were recorded and transcribed using voice recognition software (Clark et al., 2021).

3.3 Data analysis

The data analysis includes the management of raw data, making sense of the data and interpreting the data. A mixed methods approach implies analysis of both quantitative and qualitative data sets. For this investigation both primary data and secondary data sets have been analyzed. Secondary data sources are represented by texts, documents and statistics, while primary data sources are collected from field notes, interviews and the questionnaire (Clark et al., 2021).

3.3.1 Quantitative data analysis

Statistic data retrieved from official databases, documents etc., was selected and processed to support the theoretical framework and provide a better understanding of the existing conditions. Asking prices and other related data for housing in Nybyen was checked 15 times in the period 9th March to 1st June 2023 and compared with previous data for Drammen and seasonal data provided by a private actor. Statistical data is also used to describe how the investigation was conducted. The analysis of data from the questionnaire part from statistics generated by Google forms. The questionnaire was responded to by sixteen respondents of different ages, origins, main activities, educational and income levels. All respondents live in or close to Drammen (Attachment 2: Questionnaire with results). Quantitative data generated by Google was analyzed thematically and implemented to the thesis. Thematical analysis is presented together with the analysis of qualitative data (Clark et al., 2021).

To analyze quantitative data univariate analysis was used to produce descriptive statistics to give meaning to the data. Throughout the thesis, statistical data is presented in frequency tables, charts and tables or implemented directly into the text (Clark et al., 2021).

¹ Sikt: "Norwegian Agency for Shared Services in Education and Research" (<https://sikt.no/en/home>)

3.3.2 Qualitative data analysis

Qualitative data from documents, questionnaires, field notes and interviews were coded and a thematic analysis based on a six-stage process proposed by Braun and Clarke (2006, read in Clark et al 2021 p. 538) was carried out (Clark et al., 2021). The six stages and a description of methods used to analyze data is described in Table 11.

Table 11 Data analysis

Stage	Description
Familiarization	<p>Documents were examined, photos taken, field notes written and read, questionnaire elaborated, and results read, and recorded interviews were transcribed and checked for transcription errors.</p> <p>The literature review provided many texts and documents including personal-, official-, mass-media- and digital media documents.</p> <p>Field notes were analyzed and support other findings throughout the thesis. Photos functioned as part of the field notes and were analyzed posteriorly, and information identified in the photos was implemented into the text. Aerial photos of Strømsø, Drammen and surrounding areas were analyzed to identify the development of UA from 1939 to 2022. Several photos are presented in the thesis as documentation and to provide a visual understanding of Godesen and the surrounding area. Combined eleven semi-structured interviews with thirteen informants were done for this investigation. A total of nine and a half hours of interviews were transcribed resulting in a document with transcribed interviews of 241 pages including 93 000 words.</p>
Initial coding	Comments written alongside data.
Identifying themes	<p>Themes are defined as the main topics of the investigation: UA, urban development, social inclusion, healthy food access and governance. Text was highlighted with different colors to identify the related theme.</p> <p>Highlighted text was analyzed to make interconnections between data.</p> <p>When analyzing documents regarding Drammen and citizen participation in Drammen, issues relevant for Strømsø were identified.</p>

Stage	Description
Reviewing themes	Sub-themes including activities, green spaces, cultivation, organization, policies etc. were identified and searched for in the text to be analyzed and interconnected.
Defining themes	Both main and sub-themes were used to create the outline of the findings chapter to tell the narrative of the investigation and how the different themes were connected and related to the research agenda.
Evidencing themes	The findings found from analyzing qualitative data are linked with the theoretical framework of the investigation.

Sources: Clark et al. (2021) and Braun and Clarke (2006) read in Clark et al. (2021)

3.3.3 Actors and stakeholders

The list of stakeholders (Attachment 7: List of stakeholders) has been elaborated during fieldwork. An initial list was provided by BNE and another list by EGH. In November 2022, a brainstorming and analysis session was carried out (Attachment 4: Main activities during field work). Additional stakeholders have been identified during participant observation, document review and interviews. When the list of stakeholders was elaborated, the researcher analyzed it to identify actors from other stakeholders and analyze their power and interest (Field notes, 2022; 2023).

According to Bryson (2004) it is important to consider how the researcher selects stakeholder analysis participants. In this thesis, the researcher collaborated with EGH to analyze the role of actors and stakeholders. Two representatives from EGH were chosen because they have local knowledge and prior experience working both with the project and several of the identified stakeholders. This knowledge made it easier for the researcher to identify the role and influence of each stakeholder, and to choose informants and key informants representing diverse groups of stakeholders and experts (Clark et al., 2021).

Figure 11 visualizes the initial stages of the stakeholder identification process where different stakeholders were identified, and initial relations drawn between the boxes.

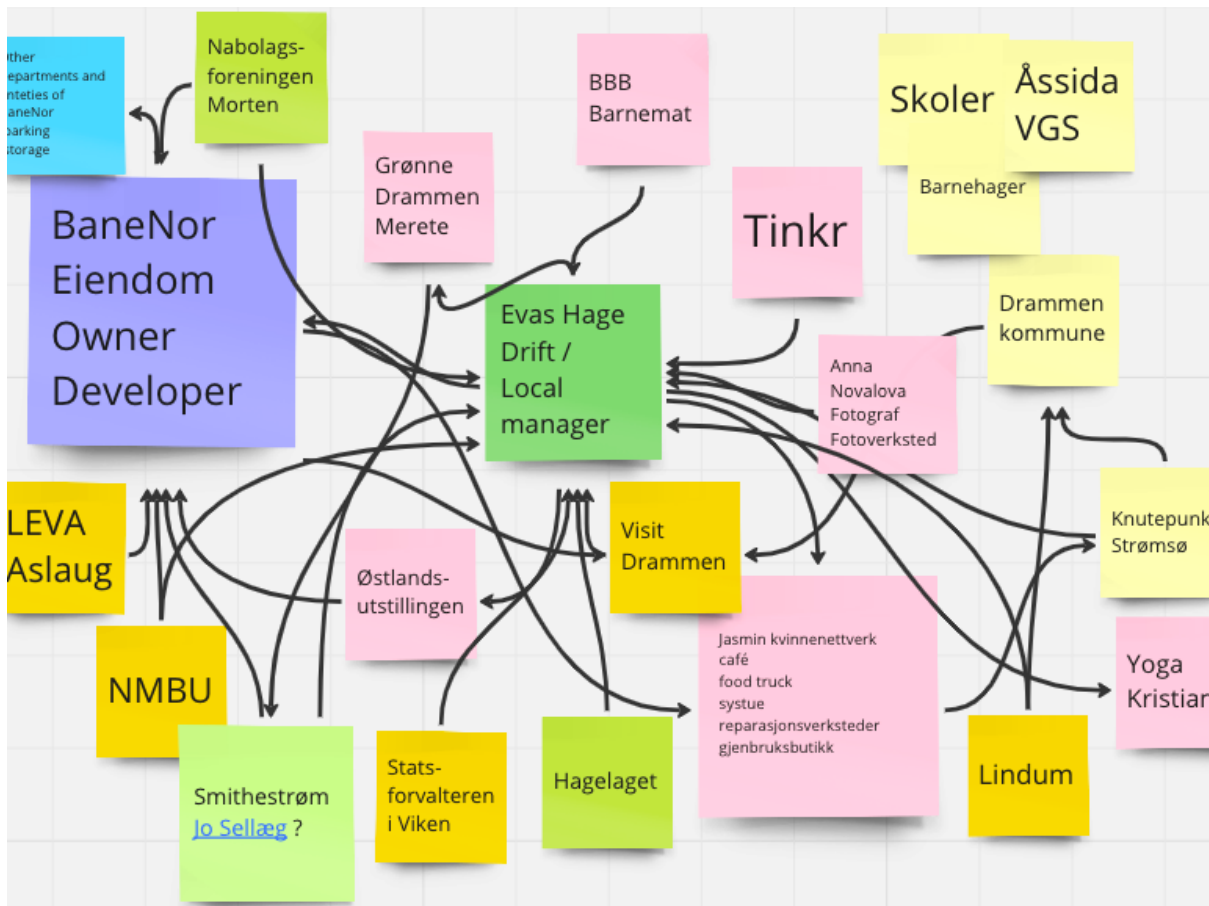


Figure 11 A visualization of the initial approach to stakeholder analysis

Post identification of stakeholders each stakeholder was analyzed separately and to identify the stakeholders' probable expectations and opinions regarding the development of Nye Nybyen and the RCUA. The level of influence of the process was specified and a discussion regarding how each stakeholder can be beneficial to the development and what role they play was carried out. Further on the power vs. interest grid and the direction of interest was identified and actors were identified from other stakeholders. The list of stakeholders was ranked according to their importance to the development of the RCUA and Nye Nybyen.

3.4 Concluding remarks

The methodology presented in Chapter 3 represents a combination of theory and a description of how the investigation was carried out. A mixed methods approach was selected for added value. Considering the transdisciplinary approach of the research project, the use of both quantitative and qualitative data collection and analysis was thought to be necessary to secure a broad background for the case study and to explore the different concepts presented

in the theoretical framework. The theories and concepts presented in Table 1 and the structure in Table 7 are considered to be appropriate for the research questions, and although a mixed method approach may have increased the workload, it is considered to be worth it due to the increased value that it leads to (Clark et al., 2021).

In the following chapters, the results from the methods presented in Chapter 3 will be presented. Chapter 4 is based on both quantitative and qualitative findings and introduces the case study including important stakeholders, while Chapter 5 represents findings mainly based on qualitative findings supported by quantitative data.

4 Case study

In Chapter 4 the case study of Godsen will be presented. A combination of secondary data from previous studies and data collected during field work is used in the case study's presentation. This chapter is the first of two chapters presenting the results found during the investigation. In the presentation of the case study the location of Godsen and its surrounding environment is presented. The identification of the geographical location and socioeconomic situation is important to understand why Godsen was selected as the subject for the current investigation. However, even though these findings are specific for Godsen and Nye Nybyen, they may also be relevant for other urban development initiatives.

The present chapter try to create an understanding of the case of Godsen, and the possibilities of using a temporary space in an urban development project as the location for a RCUA and related activities, while Chapter 5 focuses on the findings and recommendations based on participant observation, interviews, the questionnaire, and secondary data.

To further understand the context of the neighborhood and location of the RCUA a descriptive introduction to Drammen and Strømsø, its inhabitants, socioeconomic situation, housing typology, historic background, and future plans will be presented.

4.1 Drammen

The city of Drammen is in the south-eastern part of Norway as shown in Figure 12.



Figure 12 Map of Norway

Source: Norge i bilder (n.d.)

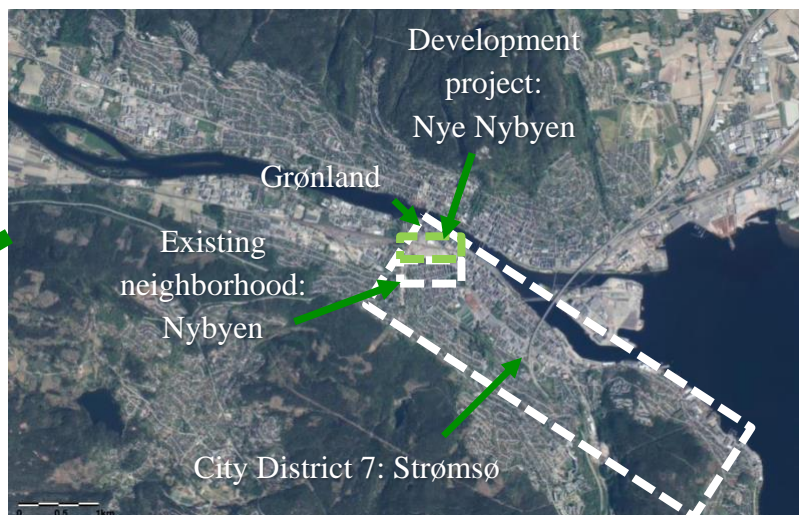


Figure 13 Map of Drammen

Modified by author based on Norge i bilder (2023)

Drammen is the administrative center of Drammen Municipality (Thorsnæs & Askheim, 2022). The municipality is divided into ten administrative and political city districts where Strømsø City District is located in the city of Drammen, on the south side of the river as shown in Figure 13. The new neighborhood, Nye Nybyen, is located in Strømsø City District, north of Nybyen neighborhood, east of Sundland and south of, and partially overlapping, Grønland (Drammen Municipality, 2020, n.d.-d; Drammensavisa, 2021). By the end of 2022 Drammen Municipality had a population of 103 291 inhabitants. The population is expected to increase to 105 967 inhabitants in 2030 and 114 271 inhabitants in 2050 (Statistics Norway, 2022b, 2023e). Approximately 29 percent of the population in 2023 are immigrants or Norwegian-born to immigrant parents. This is above the national average of 17 percent. The country of origin of the largest groups in Drammen are Poland, Turkey, Iraq, Afghanistan and Lithuania (Statistics Norway, 2023b).

Drammen has a diverse population represented by inhabitants of different identities and life situations (Figure 6). The municipality facilitates inclusion through equality measures, activities for participation and accessible common spaces. The municipality aims to be a good place to live, where its inhabitants have access to homes adapted to different phases of life (Drammen Municipality, 2021c). Table 12 shows that most dwellings in Drammen are detached houses and such, and most households own their dwelling. Drammen has a higher share of apartments (31 %) than the national average (25 %), and more than Fredrikstad (19 %) a comparable municipality in the south-east of Norway. 24.8 percent are tenants. This is higher than the national average (23.6 %) and compared to Fredrikstad (22.5 %).

Table 12 Dwellings and ownerships

Housing types (description/year of data)	Drammen	Fredrikstad	Norway
Dwellings in Drammen (total)	47 682	39 084	2 694 301
Apartments (2023)	31 %	19 %	25 %
Detached houses, row houses or houses with two dwellings or more (2023)	65 %	76 %	69 %
Tenants (2022)	24.8 %	22.5 %	23.6 %
Freeholders and part- / shareholders (2022)	75.2 %	77.4 %	76.4 %

Source: (Statistics Norway, 2022a, 2023a)

Comment: The table data is a selection of the most common dwelling types. Both occupied and vacant dwellings are included. Other types of dwellings are excluded from the table (4-5 % of total).

4.1.1 UA in the Drammen region

Drammen Municipality includes large areas of agriculture and orchards, and food production plays a significant role in the local identity and is a source of employment in the municipality. Although Drammen aims to be the greenest municipality in Norway (Drammen Municipality, 2021c), urban food production has not been identified as important in recent plans. Current plans focus on the existing agricultural industry and circular use of resources (Drammen Municipality, 2021c; I06). Historically fruit and vegetables were produced in and at the fringe of urban areas in Drammen. Figure 14 identifies some of the cultivated land at central areas of Strømsø in 1939 (Norge i bilder, 2016), including the school garden at Strømsø School. School gardens were an important arena for education in Drammen during the 20th Century. Brageres School got the first school garden in Drammen in 1912. At Strømsø, a school garden was established nearby Strømsø School in 1922 and was in use until 1963 (Oddby, 2021).



Figure 14 Cultivated land at central areas of Strømsø in 1939

Modified by author, based on Norge i Bilder (2016)

Although urban food production has not been identified as an important topic in current municipal plans, several UA initiatives have been started, both by private and public actors, since 2020 (Drammen Municipality, 2021c, 2023f; Evas Grønne Hage, 2020; Økologisk Norge, n.d.). The initiatives listed in Table 13 all have social interaction as an integrated part even though the identity and main functions of the initiatives vary. The initiatives can be divided into groups including community gardens, a cooperative garden and school gardens. Together these UA initiatives provides spaces for education, development of green urban spaces, green employment, leisure activities, public health, food security, circular use of resources and social interaction according to the multidimensional UA tools identified by Duchemin et al. (2008).

Table 13 Existing UA initiatives in and around Drammen

UA initiative	Description	Main functions
Strømsøhagen	Community garden located at the former school garden at Strømsø, includes raised beds available to neighbors and fruit trees, berry bushes, and hives organized by the municipality at Knutepunkt Strømsø.	Leisure activities, social interaction, food access, health.
Urtebed at Hallingtunet	Herb bed at Drammen Museum. A cooperation between the museum and Jasmin kvinnenettverk. The herbs are used in dishes sold at Café Jasmin at Knutepunkt Strømsø.	Leisure activities, social interaction.
Kirkeparken Samdyrkelag	Cooperative garden organized by EGH. A private initiative to grow vegetables in the park surrounding Bragernes Church.	Green employment, social interaction, empowerment, competence enhancing, food security.
Bragernes Kirkepark	Community garden organized by Bragernes Congregation cooperating with Sørbyløkka kindergarten and Naturvernforbundet (Friends of the earth Norway) in the park surrounding Bragernes Church.	Social interaction, leisure activities, education.

UA initiative	Description	Main functions
Albumhagen	A nursery and raised beds in the backyard of Bragernes Congregation.	Social interaction
Bacheparken dyrkingshage	A new municipal initiative with raised beds in Bacheparken public park.	Social interaction, leisure activities, food access, health.
Urtehagen at Gulskogen farm	A small herb garden at Gulskogen farm organized and taken care of by volunteers.	Leisure activities, social interaction.
Knutepunkt Fjell	Raised beds. Unknown status. Municipal initiative.	Social interaction
Besøksskolehage	School garden pilot at Godsen including three local schools. Private initiative by EGH.	Education, empowerment, green employment, food security, circular resource use.
Skoger skolehage	School garden at Skoger Primary School with a combination of raised beds and common areas with fruit trees and berry bushes.	Education, food security.
Portåsen skolehage	School garden in Mjøndalen including a vegetable garden, hives and a nursery at Portåsen – the former home of the Norwegian poet Herman Wildenvey and a part of Buskerud Museum. The school garden is available to seven schools in the area.	Education, food security.
Tømmerås skolehage	School garden at Tømmerås Primary School in Svelvik focuses on sustainable development, life skills and public health.	Education, food security.
Drømmehagen	School garden in Lier municipality where adult students grow vegetables, herbs and flowers while practicing the Norwegian language.	Education, food security, social interaction.

Sources: Bragernes Congregation (2022), Buskerudmuseet (n.d.), Drammen Municipality (2021b; 2023f), Drammen Museum (2021), Evas Grønne Hage (2020), Field notes (2023), I04, I05, Urtehagen på Gulskogen gård (2023) and Økologisk Norge (n.d.)

The UA initiatives presented in Table 13 are spread around Drammen. As shown in the column for “Main functions” most UA initiatives have social interaction as an important function. The garden at Knutepunkt Strømsø and the herb garden at Drammen Museum are in Strømsø City District close to Nye Nybyen and Godsen. Both initiatives aim to include local inhabitants of Strømsø and are examples of initiatives to develop Strømsø City District and create an including local environment (Drammen Municipality, 2021b, n.d.-e; Drammen Museum, 2021; Meld. St. 28, 2022-2023). According to I04 the raised beds in the garden at Knutepunkt Strømsø are meant to offer a possibility to grow plants to inhabitants living in apartments without the possibility to grow their own plants on a balcony or in their own garden. Several informants (I04; I05; I10; I11) talked about the need for crucial information flow, knowledge sharing and learning about best practices according to local conditions as important aspects to succeed with UA initiatives. According to responses from the questionnaire, most households grow edible plants outside although 26.7 percent grow plants in the windowsill. Considering the distribution of dwellings shown in Table 12, most households in Drammen are expected to have access to a garden or balcony where they can grow vegetables and other edible plants outdoors, households without access to a garden or balcony at home, may apply to access alternative locations to grow plants, alone or together with others (I04; I05; Questionnaire). Workshops, courses and other UA related activities may respond to the identified need of best practice knowledge on local growing conditions (I05; I10; I11; Questionnaire).

4.2 Strømsø

Strømsø is the seventh of ten administrative and political city districts in Drammen Municipality and is situated between the Vestfold railway and the river in central areas of the city of Drammen (Drammen Municipality, 2023a, n.d.-d). Strømsø gained its importance due to its location on the riverbank and served the lumber industry with important services from the 17th century which has been a precondition for the current infrastructure of the city district. The railway was established in 1872 and separated parts of the district from the river until recent city planning led to a reopening of public access to the riverbank. For decades Strømsø has been the workplace of many including small businesses, local shops, craftsmen and artists who have been an important part of the city scape (NIKU & Context, 2013).

Today small businesses are still represented in the streets of Strømsø, but many have closed in recent years (Field notes, 2022; 2023; I03). Previous studies show a desire to keep and renovate old buildings (Ruud et al., 2022), this is confirmed by I03 and at several

workshops for citizen participation during fieldwork. The pictures in Figure 15 are examples from the cityscape at Strømsø including existing and recently closed businesses. “Engebret sko” sold shoes at Strømsø for 91 years until the store moved to the other side of the river (Byen Vår Drammen, n.d.). The property is one of several Strømsø properties planned for urban development with 46 new apartments planned (Field notes, 20th October 2022; Vestaksen Eiendom, 2023). Before new housing is built, the abandoned property will be a temporary space for recycled goods (I04).



Figure 15 Local businesses at Strømsø

Photos: Maria Trettvik

Demographic data from 2020 shows a local population at Strømsø of 10 657 people with an average age of 40.3 years. 16 percent are children (0-17 years) and 15 percent elderly above 67 years. The population at Strømsø consists of many young adults, and 43 percent of the population is between 18-44 years. The medium income level is lower and the share of low-income households, unemployment rates, including youth unemployment, and social benefit receivers are higher than the Drammen average. Educational levels within the city district vary, Nybyen and Grønland shows higher educational levels than the Drammen average (Drammen Municipality, 2022a; Ruud et al., 2022).

Due to several challenges at socioeconomic level, Strømsø has been selected as a target for an area-based initiative (Departementene, 2020; Ruud et al., 2022). The initiative “Strømsø 2030” targets Strømsø below the Vestfold railway, and includes the areas of Grønland, Marienlyst, Brandengen and Tangen. Strømsø 2030 is a cooperation between the Norwegian government and Drammen Municipality and consist of several investments to improve services and local environmental qualities to ensure improved living conditions and life quality. Strømsø 2030 is based on four pillars of welfare as shown in Figure 16 (Drammen Municipality, n.d.-e).

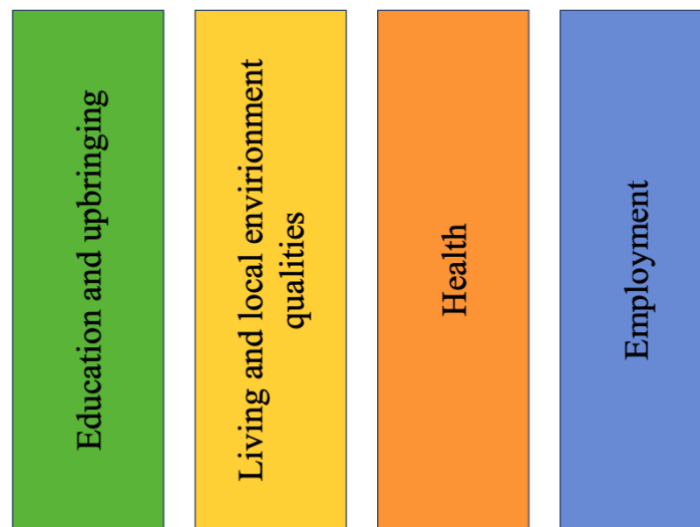


Figure 16 Welfare pillars targeted by Strømsø 2030

Source: Drammen Municipality (n.d.-e)

The main goal of Strømsø 2030 is to improve the living conditions of the residents at Strømsø through long-term improvement of local environmental qualities and services. Strømsø 2030 aim to contribute to the development of efficient long-term solutions based on local needs through cooperation between sectors and levels of administration through targeted investments on education and upbringing, living and local environment qualities, health, and employment (Drammen Municipality, n.d.-e).

Many investigations and citizens' participation initiatives have been conducted and reports, programs etc. written about Strømsø, its local conditions and identified needs and wishes (Bratseth & Kvernmo, 2020; Ruud et al., 2022). The documents listed in Table 14 represents a selection of published information about Strømsø and are important sources for the collection of secondary data for the current study.

Table 14 Former studies etc. about Strømsø and its inhabitants

Title	Year (estimate)	Published by
Sosiokulturell stedsanalyse for Strømsø	2022	Norwegian Institute for Urban and Regional Research (NIBR)
In Search of Democracy 3.0 - Drammen	2022	Østfold Internasjonale Teater
Småspor: Pilotprosjekt 2021	2022	USN
Boligpreferanser i Buskerudbyen	2021	Opinion
Programbeskrivelse Strømsø 2030	(2021)	Drammen Municipality
Beboerundersøkelse: Hvordan er det å bo og leve på Strømsø høsten 2020?	2020	Byantropologene
Nybyen spørsmål og svar	2019	BNE
Friluftsløftet 2018 Strømsø	2018	Drammen Municipality
DIVE-analyse Strømsø	2013	Norwegian Institute for Cultural Heritage Research (NIKU) and Context

Sources: Bratseth and Kvernmo (2020), Drammen Municipality (2022a; n.d.-e), Friluftsløftet 2018 (2018), Kantar Public (2022), LÉVA Urban Design (2021), NIKU and Context (2013), Nybyen spørsmål og svar (2019), Opinion (2021), Ruud et al. (2022), Wilhelmsen et al. (2022) and Østfold Internasjonale Teater (2022)

In general, Strømsø City District has a lower population growth than other districts in Drammen. Grønland and Nybyen, between which Nye Nybyen is located, are exceptions with higher-than-average population growth. Grønland and Nybyen has the highest percentage increase in population growth in Drammen from 2012 to 2022. Demographic data shows that Strømsø, including Nybyen and Grønland, have higher levels of relocation, population living alone, tenants and proportion of children living in low-income households than in other parts of Drammen (Ruud et al., 2022).

Housing at Strømsø consists mainly of apartments (Ruud et al., 2022). Few apartments have access to a balcony or a garden (I04). Although housing is relatively cheap with low median prices, the price per square meter is high compared to other areas of Drammen. Apartments are small, with an average number of people per housing of 1.8 which is lower than the municipal average of 2.2. Many dwellings have 1-2 rooms with few

dwellings with 5-6 rooms. This makes it challenging for the population to stay in the area when they need more space. A statistics report from 2022 shows that 46 percent at Strømsø state that they want to live in a bigger home, a higher share than the municipal average of 34 percent. Nybyen neighborhood has a combination of apartments (above 50 %), detached houses and houses with two dwellings or more, and is one of the more diverse housing areas in Strømsø City District (Drammen Municipality, 2022a; Opinion, 2021; Ruud et al., 2022). Examples of housing in Nybyen are presented in Figure 17.



Figure 17 Housing in Nybyen

Photos: Maria Trettvik

Repetitive searches on Finn.no in the period of 9th March to 1st June 2023 identified thirteen housing properties for sale in Nybyen, including eleven apartments and two houses with two dwellings or more sold as property for rent. Apartment sizes vary between 42 m² and 107 m², with one apartment larger than 78 m². Asking prices vary between 2 840 000 Norwegian crowns (NOK) and 6 890 000 NOK, with nine apartments priced below 4 million (Finn.no, 2023). With four out of eleven apartments priced below 3 million NOK, prices for this selection from Nybyen are higher than prices presented in a previous study (data from 2020) where 6 out of 10 apartments were priced below 3 million NOK (Ruud et al., 2022, p. 27).

Table 15 Apartments for sale in Nybyen March-May 2023.

Measure	Square meters (m ²)	Asking price (in NOK)	Asking price per m ² (in NOK)	Total price (in NOK)	Total price per m ² (in NOK)
Average	62.73	3 670 909	60 103	3 825 496	62 553
Median	57	3 290 000	59 184	3 587 920	61 072

Comment to table: Prices based on asking price in advertisement. Total price includes additional costs and joint debt.

Source: Finn.no (2023)

As shown in Table 15 the median size and prices are below average calculations. However, the median asking price is set at approximately 3.3 million NOK (Finn.no, 2023). Compared to data for Strømsø City District (2020), showing an average price per square meter of 43 786 NOK and a median price of 2 825 000 NOK (Drammen Municipality, 2022a, p. 57), and current data from the 2nd quarter of 2023 with an average price of 47 750 NOK per square meter in Drammen (Krogsveen, 2023), prices registered for Nybyen the spring of 2023 are considerably higher than other areas of Strømsø and Drammen. The difference between the asking price and total price is small, meaning that the level of joint debt of housing in the area is low.

The city district contains many housing rentals and 30-40 percent of households are estimated to live in rented housing (Drammen Municipality, 2022a). Among these are 204 municipal rental properties where 91 are common rental property and 113 are adopted housing (data from 2020). In June 2022 municipal apartments at Strømsø represented 13 percent of municipal rental properties in Drammen. This places Strømsø within the top five city districts with most municipal housing for rent, with several other districts with higher density of municipal housing (Drammen Municipality, n.d.-e; Ruud et al., 2022).

Private owned rental property at Strømsø is often of a low standard and many tenants want to relocate due to the housing conditions. Elevated levels of relocation show negative effects on social relations for children and reduced interest in the local community to participate in local initiatives to improve the neighborhood or develop the community. The housing conditions are identified as a target area to improve living conditions by Strømsø 2030 (Bratseth & Kvernmo, 2020; Drammen Municipality, n.d.-e; Ruud et al., 2022).

The proposal for housing development in Drammen suggest developing neighborhoods with varied housing composition that offers common spaces for diverse groups in all life phases, more homeowners and to secure safe and quality housing long term to assure healthy and inclusive neighborhoods. The proposal suggests cooperating with initiatives like the Norwegian State Housing Bank and to secure professional landlords administrating rental properties (Drammen Municipality, 2023c).

Another important target area is to secure the transitions from one educational level to the next, and from education to employment. High school dropout levels are high in some areas of Strømsø, and unemployed youth outside of the educational system are considered to be vulnerable to social exclusion. Initiatives to avoid high school dropouts and to employ young adults outside the educational system are considered important for future possibilities (Drammen Municipality, n.d.-e). To target education and employment both to youth and the

adult population, cooperation between the municipality and local actors like the University of South-Eastern Norway (USN) and representatives from the private sector is important and considered necessary to increase levels of participation among vulnerable groups at Strømsø (Drammen Municipality, n.d.-e; Ruud et al., 2022). Identified vulnerable groups are youth on the edge of turning into high school dropouts, refugees, women with low education levels or little work experience and social welfare recipients (Drammen Municipality, n.d.-e). Identified vulnerable groups overlap with identities vulnerable for social exclusion presented in Figure 6 (World Bank, 2013).

Citizens at Strømsø identify themselves by neighborhoods more than the city district, and initiatives to improve local conditions and its living and local environment qualities, should be reviewed and targeted for each neighborhood instead of the city district as a whole (Ruud et al., 2022). The city of Drammen has developed into separate areas and urban development has been affected by growing access to cars and changes in mobility. Today many citizens wish for a reunited city where it is easy and safe to move from one part of the city to another, and where public spaces for social encounters are accessible and close to where people live. Citizens of different ages and socioeconomic and cultural status wish for cultural activities and access to nature and green spaces for relaxation, interaction, and play. Several informants call for the possibility to grow edible plants in urban areas (Friluftsløftet 2018, 2018; Ruud et al., 2022; Wilhelmsen et al., 2022; Østfold Internasjonale Teater, 2022).

In this context Godsen has been identified by BNE to be a new space for social interaction, cultural activities, and a place where citizens and future neighbors can contribute to develop a new quality place long term as defined by Wyckoff (2014) (I05; I13). Godsen is located just north of Nybyen and in between the new commercial area at Grønland and Godsløkka. The urban development project and the role of Godsen will now be explored further.

4.3 Nye Nybyen and Godsløkka

Nye Nybyen is located in the north-western part of Strømsø City District (Figure 13) (Drammen Municipality, 2020). The development area consists of around 100 acres (Bane NOR Eiendom, 2023d). Figure 18 illustrates the plan delineation of Nye Nybyen and indicates the location of Godsen, the offices and student homes at Grønlandskvartalet, housing projects at Godsløkka and public green spaces in the proximity of Smithestrøm farm and the new rail-to-trail pedestrian and bicycle path (Drammen Municipality, 2020; I13). The area plan is expected to be presented by Drammen Municipality for political consideration

and future approval in November 2023 before it has been put out for public consultation. The area plan will also function as a zoning plan (I13). In addition to housing, commercial activities and a public park, the area will include a kindergarden, cultural attractions, catering establishments, squares and public spaces including a green avenue connecting Godsden and the park by Smithestrøm. School children are expected to attend existing schools nearby (Bane NOR Eiendom, 2023d; Field notes, 1st July 2022; I13). With workplaces, housing, public transportation, services etc. within walking distance, the neighborhood aims towards the 10-minute city where needed functions in everyday life are within walking distance (Field notes, 1st July 2022; Haarstad & Wanvik, 2015).



Figure 18 Plan delineation of Nye Nybyen

Modified by author based on Kartverket, Drammen Municipality (2020) and I13

Figure 19 shows an aerial photo of the area taken in 2022, identifying the location of Godsen and Godsløkka in the context of important surrounding institutions and spaces in Drammen, and the ongoing transformation of the rail line. In this setting Godsløkka is planned to be a new neighborhood with approximately 750-800 homes with urban services and activities in close proximity, and Godsen a vibrant and sustainable social space for neighbors and visitors (Bane NOR Eiendom, 2020; Drammen Municipality, 2020; I13). Offices and student housing are planned at Grønland, between Godsen and the bus terminal, and a public city park planned above the subterranean railway and in connection with a renovation of the baroque garden at Smithestrøm farm (I13). The construction of the culvert for the new subterranean railway is visible on the aerial photo in Figure 19 between Smithestrøm farm and the existing railway (future pedestrian and bicycle path). The development of Nye Nybyen will open a formerly closed off industrial area, link the existing neighborhood Nybyen, Smithestrøm farm, Strømsø and Grønland and create a new urban area in Drammen (I13).



Figure 19 Map of Nye Nybyen and surrounding areas

Modified by author based on Norge i bilder 2023. An approximate delineation of Nye Nybyen is marked by a dotted line based on the plan delineation (Drammen Municipality, 2020)

As indicated in the aerial photo in Figure 19, Nye Nybyen is surrounded by important institutions like USN and Drammen Museum, and public transportation hubs are located nearby. Grønland, where several cultural institutions are represented, will obtain easy access when the former closed off area opens. The main square at Bragernes is easily connected by bridges.

Godsløkka is the chosen name of the new urban neighborhood where BNE plans to develop various kinds of housing adapted to different life phases and situations. Dwellings of assorted sizes and designs will be offered. Over about fifteen years, about fifty dwellings will be completed annually. If market changes occur, or external actors want to buy up entire building stages, the development process is expected to be adjusted accordingly. The first homes to be built will be constructed at the Smithestrøm and Sundland side. From there, quarters will be developed towards Godsen. A supermarket, parking garage and other facilities and services planned close to Godsen, are planned to be constructed in one of the last building phases. The total renovation of Godsen is set after the construction of surrounding facilities. It's probable that the urban development project will continue until or past 2040 (Bane NOR Eiendom, 2020; 2023d; I13).

BNE states that Godsløkka is meant to contribute to the national goal to reduce transport related climate emissions. The development of the new urban space will focus on people and green and environmentally friendly transport options. The streets will be designed for pedestrians, cyclists etc. The area is planned to be car free, where private vehicles will be indicated to car parks outside and under the square in front of Godsen, and only emergency vehicles have access to the interior streets. The neighborhood will focus on sustainable and green solutions and aims to contribute to the green shift (Bane NOR Eiendom, 2023d).

Further on stormwater management is based on the three-step strategy and local stormwater management (I13) where collection and infiltration-based systems for small rainfalls, slow down and detention of medium sized rainfalls and the establishment of safe waterways for large rainfalls is managed at the property (Lindholm et al., 2008; Saggi, 2020). At Godsløkka, one of many stormwater management solutions, is a stormwater pool planned in front of Godsen. The pool is thought to be multifunctional with different water levels according to temporary conditions (I13). Additionally Lindholm et al. (2008) states that stormwater in urban areas can contain environmental toxins and other pollutants. Measures to prevent polluting substances from being added to the stormwater should be implemented and stormwater treated for toxins locally. (Lindholm et al., 2008) Considering that Nye Nybyen and Godsløkka will be developed at a location with previously documented railway activities,

long term contamination can be assumed due to servicing of railway infrastructure, loading of pesticides usage, etc. (R. Kallenborn, personal communication, 5th July 2023).

West of Godsløkka, Smithestrøm Farm is a private listed building from the 18th Century with a green area of approximately four acres including a terraced baroque garden, a former apple orchard and former cultivation areas (Field notes, June 2023; Heieren & Vik, 2004). Today, a large part of the area is the construction site for the new culvert and future public park (Field notes, February 2022; June 2023; I13).



Figure 20 Green areas at Smithestrøm in 2003

Modified by author based on Norge i bilder (2016)

Figure 20 visualizes the green and cultivated areas at Smithestrøm in 2003. These areas correspond to a considerable extent with the future public park planned in connection to the development of Nye Nybyen. According to I13, a renovation of the terraced baroque garden and a re-establishment of UA areas are planned with other park functions open to the public. The establishment of a public park at Smithestrøm and Godsløkka implies that a former private urban green space will be accessible to the public, and parts of a former closed off gray space will be developed into a public green space. UA installations are planned as a part of the green space development (I13), this might include an edible park, as described in Chapter 2, incorporating an allotment garden, a nursery, a market garden, a sensory garden,

etc. (I05; I13). According to I13 there are some identified concerns regarding possible UA installations in, or in connection with, the public park. The concerns are about maintenance, costs, and public access. These topics will be discussed further in Chapter 5.

4.4 Godsen and the RCUA

During field work and through interviews, the concepts of Godsen as a community arena and the location for a future RCUA were formed. The following presentation is based on information obtained through public and non-public documentation, participant observation and interviews.

4.4.1 Godsen



Figure 21 Godsen 20th June 2023

Photo: Maria Trettvik

Godsen is the chosen name of the old railway freight terminal at Strømsø in Drammen (Figure 21 Godsen 20th June 2023Figure 21). Godsen was designed by architect Paul Due and was completed in 1909. Posteriorly other warehouse buildings were constructed in connection with the original freight terminal. These buildings have been demolished, while Godsen, a building of heritage value, remains (Bane NOR Eiendom, 2020; Drammensavisa, 2021). Figure 22 visualizes a functioning freight terminal with surrounding areas in 1939 and 2018. On the 1939 picture, an allotment garden that is said to have belonged to railway workers, is visible in front of Godsen (Field notes from meeting BNE, EGH, Drammen Historielag, 25th January 2023).



Figure 22 Aerial photo of Godsen and surrounding areas in 1939 and 2018

For over a century Godsen functioned as a freight terminal. The future use of the approximately 1500 m² building, is based on a tactical placemaking approach (2.3.3 Placemaking) where local stakeholders and the community are invited to implement short term projects and activities at low cost within the timeline until a total rehabilitation starts (Bane NOR Eiendom, 2023d; Wyckoff, 2014). Elements of creative placemaking are used to strategically shape Godsløkka by offering a space where diverse people can meet, local businesses develop and a safe space for inspiration be formed. Successful projects might be implemented in the future Godsen post rehabilitation (Field notes, Project meetings BNE and EGH, 12th December 2022; 14th April 2023; Markusen & Gadwa, 2010, read in Wyckoff 2014).

Long term, in 3-4-5-15-20 years, Godsen will be completely renovated. Short-term, Godsen will remain an uninsulated raw building. Functioning as a placemaking location for Godsløkka, the temporary use of Godsen aims to create a rich and bustling cultural life, a meeting place at Strømsø and a location for a cultural incubator (Bane NOR Eiendom, 2023d; Field notes; I13). One of the initiatives offered at Godsen will be a RCUA (Bane NOR Eiendom, 2022b).

4.4.2 Resource Center for Urban Agriculture

The establishment of a RCUA in Drammen is a private initiative started by EGH. The RCUA is planned to be a network of partners representing various aspects of UA and providing multidimensional tools for sustainable development at local and regional level. The network is still under development and does not have a membership register, but several potential partners have been identified. (Field notes, 2022; 2023; I05). EGH cooperates with the National Centre for Urban Agriculture (NCUA) and local and regional actors within

renovation and reuse of resources, social initiatives, horticultural societies, entrepreneurs, and representatives from non-governmental organizations (NGO), local authorities and private sector. Table 16 show a list of partners who have entered a letter of intent with EGH to establish a RCUA in Drammen.

Table 16 List of cooperating partners of the establishment of a RCUA in Drammen

Partner
Bane NOR Eiendom
Byen Vår Drammen
Drammen Municipality, Department of Environment and Agriculture
Stiftelsen Fontenehuset Drammen
Lindum AS
Naturvernforbundet Buskerud
National Centre for Urban Agriculture at NMBU
Tinkr AS
Økologisk Buskerud

Sources: EGH and BNE (2021), Byen Vår Drammen (2021), Drammen Municipality (2021), Stiftelsen Fontenehuset Buskerud (2021), Lindum AS (2021), Naturvernforbundet in Buskerud (2021), NCUA (2021), Tinkr AS (2021) and Økologisk Buskerud (2021).

Short-term the RCUA network is thought to be a concept where different actors within UA can cooperate, and where it is easy to gain information about actors within UA in and around Drammen. The establishment of a RCUA will provide a single contact point for UA related questions, and function as a hub where citizens, private and public actors obtain information about UA actors. Members of the network represent sustainable alternatives for local and regional development and will provide goods and services to the public and local actors. Short-term, members of the RCUA network will offer a school garden, workshops to fix and learn and a location to fix or buy used products, and courses on UA-related topics including compost, cooking and different parts of the cultivation cycle. The RCUA aims to co-exist with other activities at Godsen (I05).

Little by little the RCUA is thought to grow and develop. Long term the RCUA is thought to develop a physical center of competence at Godsen where citizens, organizations, local initiatives, private companies, and the public sector can come to obtain specific information. Everyone is welcome whether it is about basic questions on raised beds, a discussion about irrigation systems, or a developer who wants a proposal for UA in a gigantic

urban development project. In general, a place where network members can provide expert opinions on UA related topics, and members can have a common working space. Additionally, members of the RCUA network will provide services related to UA including growing of plants, processing of food, sale of produce and secondary production to restaurants and visitors (I05). A nursery, school garden, compost installations to demonstrate circular systems, rainwater collection systems and alternative production methods like hydroponics etc. might be available for demonstration (I05; I13). The RCUA at Godsen should be a park and space for relaxation and social encounters, as well as a workplace and space for courses and education. Other activities like yoga, communication, photography, etc. will also be offered at the RCUA as services and sharing of knowledge (I05).

The RCUA will be a neutral arena that focuses on inclusion through cultivation and activities related to re-use and circular use of resources, where everyone can participate regardless of skill level and life situation. The RCUA want to offer green summer jobs, voluntary activities, competence-providing courses with course certificates, courses on different topics according to local wishes, etc. The final structure and services and activities offered will depend on the financing. With external funding free services and activities will be offered to the public, while initiatives without external funding will need to be paid for. The RCUA is expected to offer a combination of free, low cost and paid activities and services. The RCUA is a non-profit initiative (Field notes 2022; 2023; I05).

The RCUA was initiated by EGH. After a preliminary project was completed to establish the need for a RCUA in Drammen, a grant for business development and innovation was given by Viken County Municipality to develop the center (Viken County Municipality, 2021; I05). During the development process different organizational models were considered and a tentative model has been proposed. The final organizational model is yet to be determined. The tentative model in Figure 23 shows EGH AS, the NGO “Grønne Drammen” and “Godsen AS” as separate organizations. Godsen consists of two entities: Hall 1 for non-profit activities, and Godsen excluding Hall 1 for commercial activities (Field notes, 2023). The RCUA network is located under Grønne Drammen. The arrows illustrate that EGH contributes to both the RCUA and Godsen, and the RCUA contributes to Godsen.

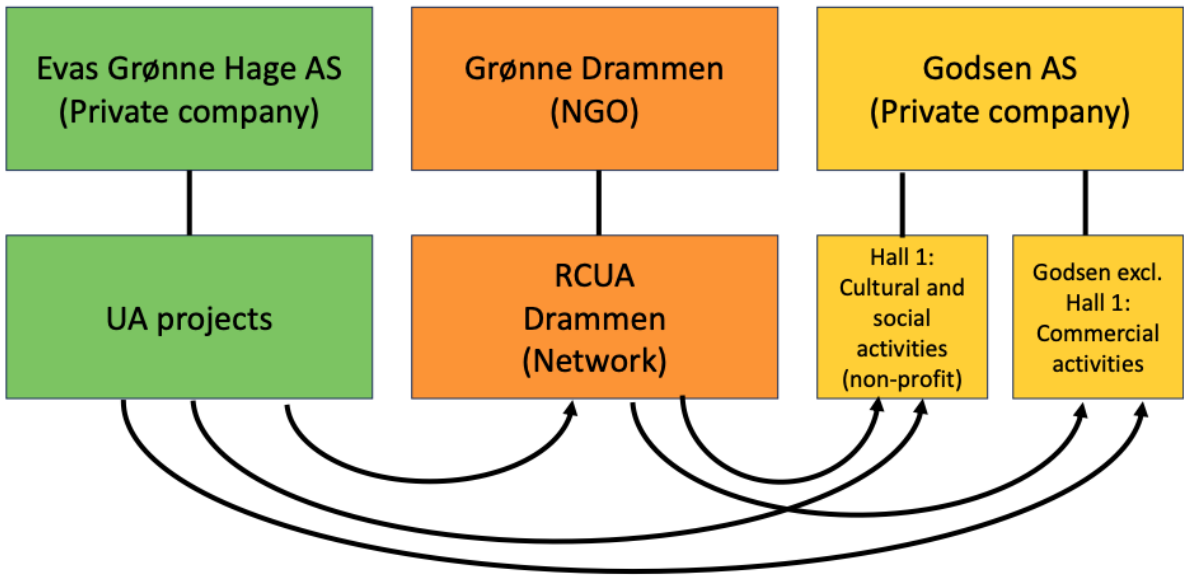


Figure 23 Tentative organizational model

With separate entities EGH is no longer the owner but a partner of the RCUA network that contributes to the network with knowledge and UA projects.

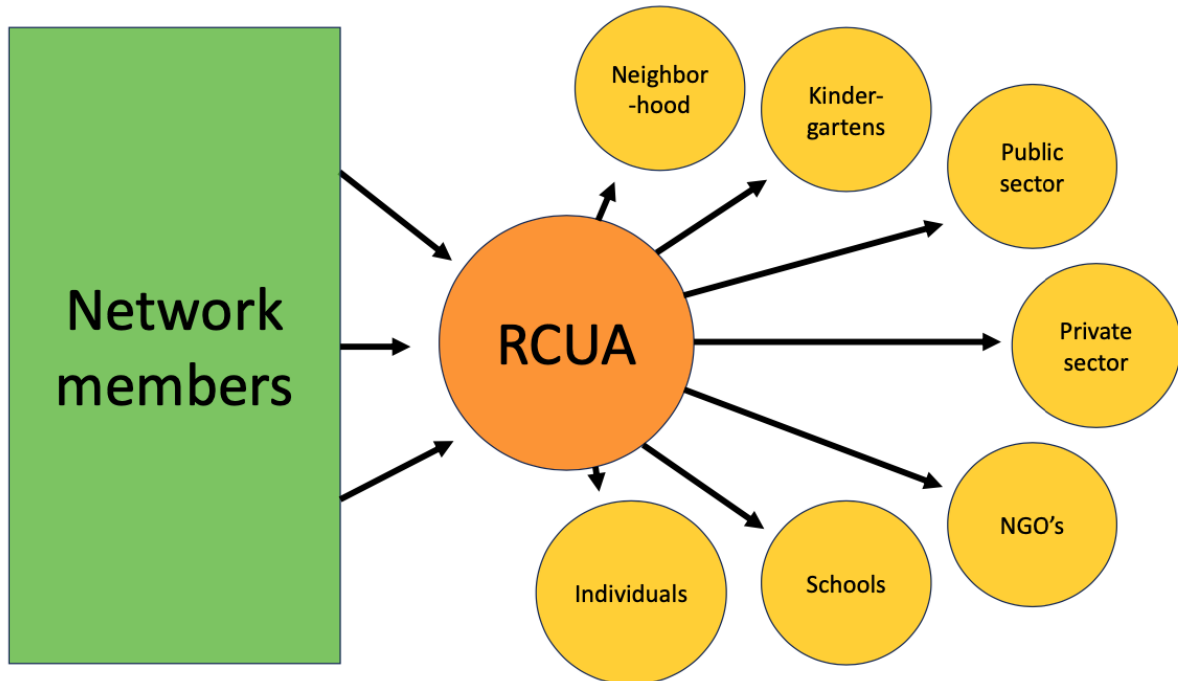


Figure 24 A visualization of the RCUA network concept

Figure 24 visualizes how members of the RCUA network are united and provide services to external actors. The RCUA will be one of several available services and activities at Godsén (Field notes 2023; I05).

4.5 Selected actors and stakeholders

How actors and stakeholders were selected is presented in subchapter 3.3.3. The main actors, entities and people of the urban development projects and the establishment of the RCUA have been identified as BNE and EGH. With the establishment of Grønne Drammen and the transfer of the RCUA to Grønne Drammen, this association will be a key factor in the future. Other important actors and stakeholders are the NCUA, Drammen Municipality, local citizens and local businesses, NGOs, different public and private entities and individuals. These actors and stakeholders are presented further. A list of stakeholders identified during field work is presented in Attachment 7: List of stakeholders. Identified stakeholders have various levels of interest and collaboration. All stakeholders listed have been mentioned by informants, in documents, during meetings, workshops and other activities during field work (Field notes 2022; 2023; I01; I02; I03; I04; I05; I06; I07; I08; I09; I10; I13).

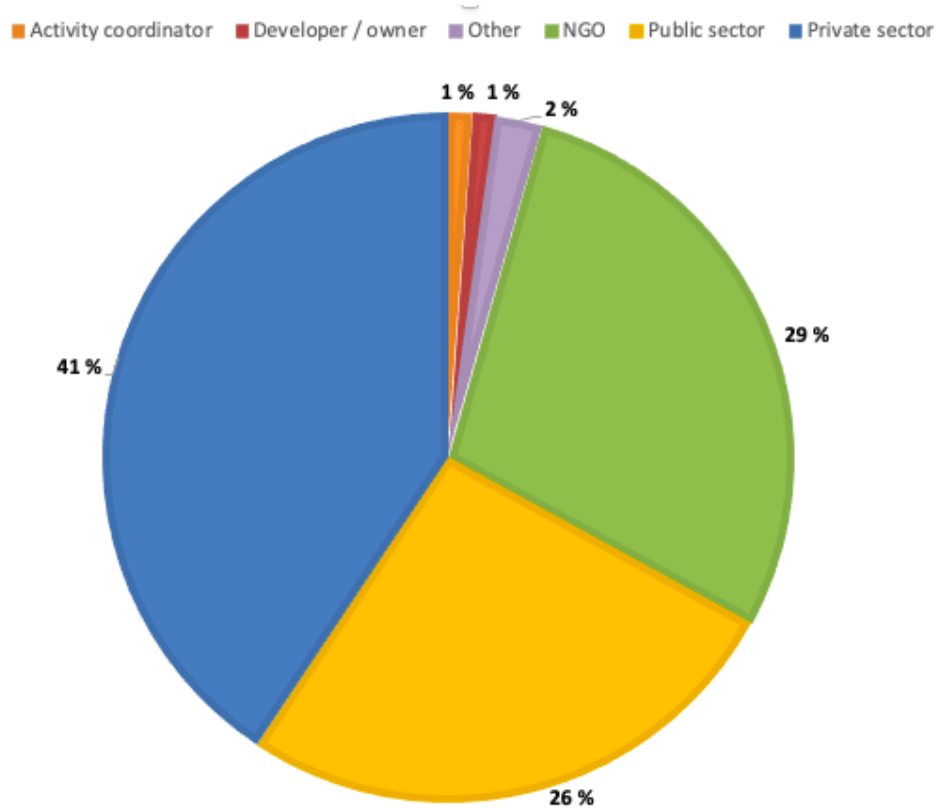


Figure 25 Sectorial distribution of stakeholders

The stakeholders have been categorized into groups and show a broad participation from the public- (26 %) and private sector (41 %), as well as NGOs (29 %). Drammen Municipality is connected to the development through several entities. The diagram in Figure 25 shows the distribution of representatives from public sector, private sector, NGOs and others.

4.5.1 Bane NOR Eiendom

BNE is the owner of all railway property in Norway and is one of the country's main property developers. The company is owned by Bane NOR SF which is owned by the Norwegian Ministry of Transportation and Communication. The company mission is “to create value for its owners and society through long term development and management of property” (Bane NOR Eiendom, 2022a). BNE owns, develops, operates, and manages railway property, including transportation hubs with workplaces, housing and services (Bane NOR Eiendom, 2022a).

BNE is the property owner and developer of Nye Nybyen and is the owner of Godsen. BNE has chosen to develop Godsen into a social arena and use the building and surrounding area for placemaking purposes in connection with the urban development project (Bane NOR Eiendom, 2022c; Field notes, 2022; 2023; I13). BNE is the actor with the most power and prominent level of interest (Stakeholder analysis).

4.5.2 Evas Grønne Hage

EGH is a small local business in Drammen working to design, establish and operate green areas within the city (Evas Grønne Hage, 2022b). In 2021 EGH and BNE entered into an agreement of intent to cooperate to establish a center of expertise in the field of urban agriculture at Godsen (Evas Grønne Hage & Bane NOR Eiendom, 2021). Later BNE and EGH entered into an agreement of cooperation in 2022 followed by an agreement where EGH coordinates activities at Godsen in a start-up phase, until the assignment is put out to tender (Bane NOR Eiendom, 2022b; 2023b; Field notes, 2023). As of 1st January 2022, EGH is the coordinator of activities at Godsen and the intermediary between BNE and local actors (Bane NOR Eiendom, 2023b). EGH has a prominent level of power and interest (Stakeholder analysis).

4.5.3 Grønne Drammen

“Grønne Drammen” (Green Drammen) is a recently established association promoting green initiatives in Drammen (Grønne Drammen, 2023b). The association was established by representatives of EGH (Field notes, June 2023). The main purpose of Grønne Drammen is to contribute to a greener urban development and facilitate social entrepreneurship based on local resources through the promotion of UA at private and public areas, the creation of community projects and establishment of meeting places. Further on Grønne Drammen promotes greener, smarter, and more inclusive urban development through the promotion of knowledge and understanding of urban ecology and its impact on urban and peri-urban green areas, including targeted projects to strengthen and protect the native biological diversity in and around Drammen (Grønne Drammen, 2023a).

The RCUA network will be a sub entity of Grønne Drammen and administered by the association (Field notes, June 2023). Grønne Drammen has a high medium of power which is expected to increase and an important level of interest (Stakeholder analysis).

4.5.4 National Centre for Urban Agriculture

The NCUA aims to promote education and research on the environmental, social, economic and ecological dimensions of urban agriculture including a sustainable circular economy (National Centre for Urban Agriculture, 2022). The NCUA cooperates with EGH through student projects and student interns and provides information about current UA research and national and international resources (Evas Grønne Hage & NCUA, 2021; Koldingsnes, 2022). The NCUA has a medium level of power and high level of interest (Stakeholder analysis).

4.5.5 Drammen Municipality

Drammen Municipality is one of the partners supporting the establishment of a RCUA through a letter of intent (Evas Grønne Hage & Drammen Municipality, 2021). Where the municipality commits to contribute to the establishment of a RCUA and facilitate UA initiatives in Drammen (C. Lie, personal communication, 7th July 2023).

The Department of Environment and Agriculture at has been a silent partner for the RCUA since the letter of intent was entered into in 2021, while the Department of Education has collaborated with EGH on a school garden initiative (Field notes, 2023; I05). According to I07 the Department of Environment and Agriculture at the municipality are waiting for a political mandate before specific actions to implement UA in the municipality can be

activated. Changes toward increased importance of UA in municipal politics are expected. It is important that the municipality act in an orderly manner. For now, no clear political mandate has been given. Many possible actions have been identified and can be developed upon a clear political mandate. The present role of the municipality is to inform the population and facilitate other actors to offer UA activities. This is also valid regarding a private initiative like the RCUA where the municipality can contribute with brainstorming, guidance, etc. But if the municipality is to influence and participate in the decision making, this will be followed by responsibility which would demand a political mandate (I07). At city district level UA activities are offered as neighborhood initiatives (I04). One task at central level is to identify possible areas for UA in Drammen, another to offer subsidy schemes (I06).

Informants from the municipality are positive to the establishment of a RCUA in Drammen (I04; I06; I07), and states that it would be incredibly positive for Drammen to have a RCUA where people can visit and obtain information and increase knowledge (I07). Municipal representatives report following the RCUA process as bystanders who follow the development. They can contribute at a certain level, but the initiative and decision making should be up to the organizers (I04, I06, I07). Drammen Municipality has a high level of power, that they choose not to use, and medium to low level of interest (Stakeholder analysis).

4.5.6 Viken County Municipality

The Viken County Municipality is responsible for matters crossing municipal borders and tasks that are too big for individual municipalities to handle by themselves. This includes high school education and apprenticeship, culture, transportation, regional development and planning, public health, climate, and environment, etc. The County Municipality offers grants for business development and subsidies for volunteers and work to facilitate physical activities, stimulate volunteer activity and equalize social differences to develop villages, towns and cities with good living environments and quality of life (Viken County Municipality, 2023). The Viken County Municipality has a high level of power and medium level of interest. The County Municipality wants for the RCUA to be established. Their main input is funding (Field notes; Stakeholder analysis).

4.5.7 Local population

The transformation of Nye Nybyen and the establishment of a RCUA at Godsen is considered to affect groups or individuals from neighboring areas (2.6) (LÉVA Urban Design, 2021). In the case of this investigation the local population is represented by local entrepreneurs, NGOs, individuals etc. In addition to information presented in previous studies (Table 14), local citizens are represented in the investigation through a selection of citizen representatives who have been interviewed (Table 9).

Local citizens, in the capacity of individual or organized citizens, have had the possibility to participate through citizen participation initiatives. Feedback show that informants are positive regarding the genuine possibility to participate (I04), simultaneously questions regarding stakeholder power when participating have been asked, and key informants as well as other informants during field work have questioned whether individual citizens have real power to influence final decisions of the urban development project (I03; I04; I08). The local population has medium to low levels of power, and high to low level of interest. Power level depends on group affiliation and the position of everyone. Interest levels vary between groups and individuals (Stakeholder analysis).

4.5.8 Local businesses and NGOs

In addition to public services Ruud et al. (2022, p. 32-33) identify groups of actors with active participation at Strømsø representing food services and catering, retail and other businesses, workshops, craft businesses, property developers, NGOs, hairdressers, wellness centers, art and culture, religious communities and healthcare. Security guards have been observed (Field notes, 2023). The following groups have been identified as especially relevant for Godsen: Art and culture, food services and catering, workshops, craft businesses and other small businesses. Long term all groups are relevant for the development of Nye Nybyen (Field notes, 2022; 2023).

Some of the local businesses, NGOs etc. that have been actively involved in activities at Godsen during the time of field work are: BNE, EGH, Grønne Drammen, Drammen Historielag, Dystopia, Åssiden High School, Østlandsutstillingen, Buskerud Kunstsenter, Lierdalen Lysstøperi, Konnerud Strømsgodset Hagelag, Lindum, Norsk Kulturforum (Kulturytring), Viken Entreprenør, Haandbryggeriet, Bragernes School, Heltberg School, Rødskog School, Maja Ratkje (Svartskog Music AS), Anna Novalova, The Shakin' Night Cats, etc. (Field notes, 2023). Local businesses have a high to low level of power, and a high to low level of interest. Power level is considered to depend on the level of cooperation with

BNE and EGH. Interest level is considered to vary between businesses based on location, field of work and whether the business wants to work at Godsen or in Nye Nybyen (Stakeholder analysis).

Figure 26 is based on Figure 9 and illustrates identified interest and power levels of main stakeholders. For the local population, businesses and NGOs A and B groups are created to demonstrate different levels within the groups.

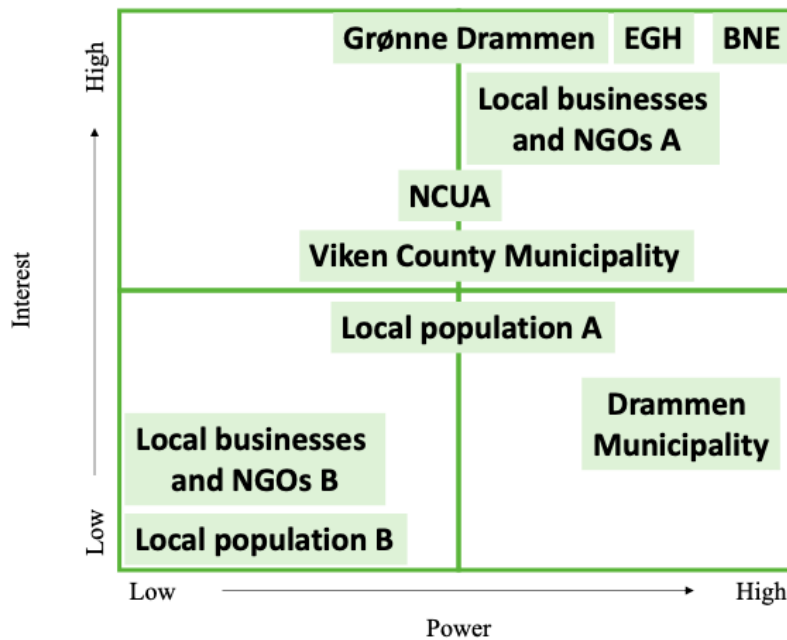


Figure 26 Visualization of identified power and interest levels

Source: Elaborated by author based on Eden and Ackermann (1998, p. 122) and Bryson et al. (2002)

4.6 Concluding remarks

In Chapter 4 the case study of Godsen has been presented. The location of Godsen and the development project Nye Nybyen, including Godsen and Godsløkka, have been identified, and the current situation of Strømsø City District and the surrounding neighborhoods of Nye Nybyen have been introduced. Main actors and local stakeholders have been identified to answer RQ1. As a city district selected as an area-based initiative, Strømsø and its neighborhoods have identified specific needs to develop quality urban spaces, and in particular green spaces, as well as developing spaces where cultural events and casual and organized encounters take place and social inclusion is secured according to RQ3.

Strømsø is a city district with identified challenges at several levels. These present circumstances and identified needs of social development make it especially relevant to investigate how a RCUA can provide tools for social development and answer the main research topic. Previous studies and statistical data show that many low-income families live at Strømsø, children grow up in neighborhoods with high levels of relocation where it is challenging to develop lasting relationships. This makes it relevant to investigate how UA and the RCUA can provide tools to limit social vulnerability and food poverty and secure an inclusive environment at local and regional level according to RQ2 and RQ3.

In Chapter 5 findings and recommendations based on a review of previous investigations, field notes, the questionnaire and conducted interviews will be presented.

5 Findings

Chapter 5 focuses on findings and recommendations based on a review of previous investigations, field notes, the questionnaire, interviews conducted and expert opinions. Based on the case study of Godsen and the urban development project Nye Nybyen, and specifically the housing projects at Godsløkka, this chapter focuses on the topics “local aspirations”, “identified possibilities” and “expert recommendations”. Based on the theories and concepts presented in Chapter 2, this chapter introduce identified goals and wishes based on feedback from citizens and local authorities, followed by identified possibilities within this urban development project based on information provided by the property developer, before recommended solutions based on expert recommendations and input from respondents of the questionnaire are presented. Given recommendations are separated into “inclusive urban development”, “inclusive activities”, “healthy food access” and “governance”.

During field work and conduction of interviews it became clear that the understanding of what UA implies differs from informant to informant (I01; I02; I03; I04; I05; I06; I07; I08; I09; I10; I11; I12; I13). This understanding confirms findings from the literature review that different fields use different definitions on UA (2.2). Further on it identified a need to clarify each informant’s understanding of UA, prior to the introduction of the definition used for this investigation. Several informants called for a need for the RCUA to provide knowledge on UA and promote a mutual understanding of what UA implies (I03; I05; I10). Recommendations are initially based on each informant’s understanding of UA and their experiences before the wider definition was introduced.

5.1.1 Local aspirations

According to different citizens participation initiatives local citizens are positive to the development of Nye Nybyen and Godsløkka (LÉVA Urban Design, 2021; Nybyen spørsmål og svar, 2019). This has been confirmed during field work, though one respondent of the questionnaire prefers the area outside of Godsen to maintain a commuter parking (Attachment 2: Questionnaire with results). Some respondents are worried the construction period will mean abandoned spaces, higher levels of traffic and noise, and a change in traffic patterns in existing residential areas. Citizen participation throughout the construction period is called for (Nybyen spørsmål og svar, 2019).

Post construction some respondents are worried that existing green structures will be removed, and a grey area with too tall buildings will rise and create an unrecognizable environment. Townhouses and apartment buildings of maximum 3-4 floors are suggested.

Respondents highlight the need to develop a neighborhood that preserves the existing identity and visual impression. Use of multiple colors, environmentally friendly and natural materials and multiple green spaces are recommended (LÉVA Urban Design, 2021; Nybyen spørsmål og svar, 2019; I03). I03 proposes a distinctive architectural design different from standard apartment buildings in Drammen to create a neighborhood with its own identity that attracts visitors. A neighborhood where people feel welcome and included. Other respondents suggest varied architecture to design buildings that can stand on their own and use concepts from existing old buildings nearby in the external design of new buildings (Nybyen spørsmål og svar, 2019; Østfold Internasjonale Teater, 2022; I03). Several informants are positive to the idea of a car free neighborhood, but express concerns regarding existing driving habits in the Drammen population and possible negative consequences for residents to receive visitors if parking is expensive or difficult to access (I01; I02; I03; I04; I05). Another concern is that all residents will be elderly people with high income who want to live in a central area, and that low-income individuals and families will be excluded from living in the neighborhood (I03).

Suggestions on how to develop the new neighborhood include a varied selection of services and activities to create and develop an inclusive neighborhood. Services mentioned are bakery, café, restaurant, food court, take-away, retail, fruit and vegetable stores, international stores representing different cultures and continents, pub, neighborhood bar, leisure and sport, kindergarten, international school, library, community house, function room for rent, sharing facilities, coworking space, education and courses, employment agency, culture, art and good public transportation, among others. Identified activities include markets, festivals, courses, birthday parties, workshops, concerts, exhibitions, outdoor school activities and the possibility to promote local entrepreneurs and offer employment to young adults and other vulnerable groups locally (LÉVA Urban Design, 2021; Nybyen spørsmål og svar, 2019; Østfold Internasjonale Teater, 2022).

Many respondents focus on the need for teenagers and young adults to meet both indoors and in safe spaces outside. The importance of multiple spaces to sit down in the cityscape, and the need for these spaces to be designed for all generations and with universal design, is repeated frequently. Alleyways are suggested to create variation between buildings and create “secret” and quiet spaces. Installations specified are parks, areas to grow food, multiple green spaces, outdoor meeting spaces, playgrounds for different ages, dog park, car free areas, pedestrian street, spray paint wall, street art, public sport facilities for free use and water play. Many respondents suggest multifunctional urban spaces where different

generations and people with diverse backgrounds, life situations etc. can meet and develop social relations through random and repetitive encounters (LÉVA Urban Design, 2021; Nybyen spørsmål og svar, 2019; Wilhelmsen et al., 2022; Østfold Internasjonale Teater, 2022; I01; I02; I03; I10).

Several respondents focus on the importance of attractive activities and spaces designed for multiple activities (LÉVA Urban Design, 2021; Nybyen spørsmål og svar, 2019; Østfold Internasjonale Teater, 2022). I01 recommend Godsen to be a landmark that stands out. Questionnaire respondents specify the need for a social inclusive and open environment where users feel like they belong if they are to use Godsen. They want a space where they are offered a combination of organized activities with the possibility of coming and going without an appointment (Questionnaire).

Representatives from Drammen Municipality aspire for the RCUA to be an open and inclusive space that offers competent educators where kindergartens and schools can visit (I07). Another aspect specified by various respondents, is the need for different housing which facilitates the presence of a wide range of different population groups, and secure that all groups, like the ones identified in Figure 6, have access to housing in Nye Nybyen if they wish to live there. The following housing categories have been suggested: 1-2-3-4-5-bedroom housing, multi-family home, student housing, artist residence, shared housing, care home, adopted housing, retirement home, individual housing units with shared common areas (Nybyen spørsmål og svar, 2019; World Bank, 2013; Østfold Internasjonale Teater, 2022; I03). Several informants have specified the need to combine and mix different housing categories to secure variations within each quarter. Different payment and loan structures should be offered and both rental housing and individual ownership should be made available (I03; I08; I09).

Combined respondents of citizen participation, informants, and defined visions for urban development in Drammen aspire towards a neighborhood that offer a wide specter of urban services and include inclusive public spaces to secure inclusion at various levels like the ones described in Figure 7 (Drammen Municipality, 2021c; LÉVA Urban Design, 2021; World Bank, 2013; Østfold Internasjonale Teater, 2022; I01; I02; I03; I04; I05; I08; I09; I10).

Considering the definition of UA used for this thesis, “the growing of plants, sustainable use of resources and related social and economic activities within and around urban areas” (2.2), citizen participation has discovered local aspirations that overlap with UA tools. Some of the identified aspirations are listed in Table 17.

Table 17 Citizen proposed UA aspirations

Growing of plants	Sustainable use of resources	Social and economic activities
Green urban spaces	Fruit and vegetable stands	Social meeting places
Vegetable gardens	Local food stands	Safe meeting places for youth and young adults, day and night
Sensory garden	Good water quality	Inclusive spaces for elderly and children
Japanese garden	Use of rainwater	Unorganized green spaces to play freely
Garden maze	Reuse of products	Many squares
Growing plants everywhere	Space for sharing and exchange of things	Playgrounds
Sprawling nature park	Fixing workshop	Accessible spaces
Beautiful park	Bicycle workshop	Outdoor seating
Space (and permission) to build a treehouse	Learn to repair things yourself	Vibrant urban spaces
Nature integrated in the city	Garbage sorting	Fountains and places to bathe
Green architecture	Improved public transportation	Common activities in public spaces
Plant walls outside and inside	Less cars	Low-threshold access, services and activities
Roof top gardens	Slow driving buses	Spaces where a sense of belonging and responsibility is created
Nursery	Pedestrian only paths	Support lonely people
Public edible plants available for harvest	Bicycle paths	Inclusive activities for all ages
Local food	Access to light at public spaces	Voluntary work
Outdoor school		Places to speak Norwegian
Waterways		Employment without education and high qualification levels

Growing of plants	Sustainable use of resources	Social and economic activities
		Building workshop
		Climbing facilities
		Food court
		Culture buss
		Market
		Fish market
		Hives
		Statues to climb on and play with: of animals, trolls, dinosaurs, a boat, a cannon, a space rocket

Sources: LÉVA Urban Design (2021), Nybyen spørsmål og svar (2019), Wilhelmsen et al. (2022) and Østfold Internasjonale Teater (2022)

Many of the local aspirations for the development of Strømsø and Nye Nybyen listed in Table 17 represents social, environmental, and economic elements that are multifunctional, like the ones defined in the urban agricultural triad presented by Langemeyer et al. (2021) (Figure 3). Green urban spaces can be a playing ground, workplace, outdoor classroom, safe social meeting place day and night, provide edible plants for the public, be accessible for all, be beautiful and be a space for low-threshold activities, etc. Markets and workshops can offer local food production, catering services and circular use of resources, while urban solutions may offer environment friendly transportation, statues to climb on, waterways to play and bath in, etc. many of these aspirations can contribute to resilient and sustainable solutions. How the RCUA can contribute to these aspirations to be realized will be presented in 5.2 Expert recommendations. First, identified possibilities within the urban development project Nye Nybyen will be presented.

5.1.2 Identified possibilities

As the property developer, BNE is responsible for the concept development of the new area. With the construction of approximately 30 000 square meters of commercial space, including offices, and 750 housing units, BNE focuses a lot on what kind of neighborhood Nye Nybyen and Godsløkka will be. One of the main goals is to strengthen the railway as a means of transport so that people live and work close to the railway. This includes car free areas, where no private cars will have access to streets within the neighborhood, and very low

levels of parking coverage. Streets will be designed for emergency vehicle access, pedestrians, and bicycles (I13). Access to a parking garage will be underground at the neighborhood's edge (Field notes, 2022). The total number of parking spaces is yet to be decided but depends on demand upon construction and guidelines defined in municipal plans (I13).

UA installations and the possibility for UA activities are facilitated in the proposed area plan. It is possible to develop an edible park and other UA facilities. One example is the possibility for an allotment garden in the northeastern corner of the park. When including stormwater management, green spaces and reuse of resources, many UA factors are included in the area plan, especially green structures and social infrastructure. One possibility is rainwater collection from the roof of Godsen. Adjustments to secure uncontaminated water for irrigation purposes might be implemented. Drammen Municipality focuses on stormwater management, and the area plan is extremely ambitious regarding this topic including visible stormwater management solutions. It is prioritized to preserve and renovate existing green areas and playing grounds, as well as creating new green spaces and playgrounds (I13).

The content of a public park, like Smithestrøm Park, the park connected to Smithestrøm Farm, is a collaborative project between BNE and Drammen Municipality. Thus far it has been important for BNE to make sure that the area plan does not prevent the development of urban gardening. Whether or not it is possible to make it happen, and the result regarding the content of the public park and other green spaces, is up to the municipality, the condominiums, and the actual users. The park is noticeably big, and its development is planned in several stages with many different facilities and installations. A crucial point is who will be responsible, and cover the cost, to operate and take care of different installations, and how to secure public access and prevent the development of private installations, that exclude public use, in a public space. The ambition is to facilitate UA and food production to make it possible if wanted (I13).

One of the last stages of the development project is the renovation of Godsen. That is approximately twenty years from now. Starting now, Godsen will be a functioning community house, with activities that create life, activities that can stand the conditions of a raw building without heating and air conditioning – where you can expect outside temperatures throughout the year.

Godsen is a space for placemaking and an easy to access space where everything is possible. The conceptual idea is about to be formed and contain three main components (I13):

- 1) Hall 1 with cultural activities: concerts, exhibitions etc.
- 2) Hall 2 with start-up of small businesses with space-consuming storage needs that fits in a raw building including re-use of goods, growing of plants etc. with actors who cooperate and work together.
- 3) The temporary square outside. The establishment of the temporary square has started and is planned to be completed by Kulturytring 2024. Trees will be planted and raised beds installed.

The choice to make Godsen available for local actors and the community is based on a placemaking strategy to develop a popular and inclusive neighborhood (2.3.3 Placemaking).



Figure 27 The Shakin' Night Cats performing on the truck ramp at Godsen



Figure 28 Students from Åssiden High School ready to celebrate the end of the first student project at Godsen



Figure 29 Exhibition opening of Østlandsutstillingen at Hall 1

Photos: Maria Trettvik



Figure 30 Drammen Historielag present the history of Godsen

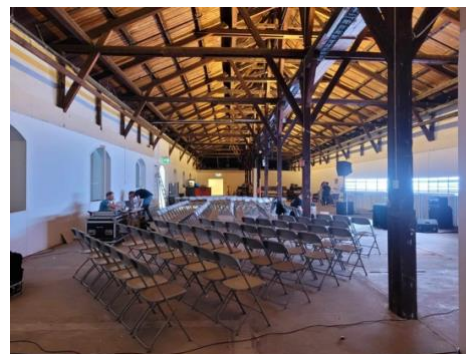


Figure 31 Preparing for a concert in Hall 1 during Kulturytring

Figure 27-Figure 31 visualizes different activities at Godsen from March to June 2023 that have happened because of the placemaking strategy and cooperation with local actors (Field notes, 2023).

BNE is not worried about gentrification, because the existing Nybyen is a well-developed neighborhood, and Nye Nybyen is seen as an improvement of the area. BNE expects existing Drammen residents and people who move to Drammen for work to be the main groups of inhabitants at Godsløkka. Especially adults and elderly who want to move from detached houses to apartments and people who move to Drammen to work at the new hospital or at Grønlandskvartalet are expected to live in the new neighborhood. For now, 60 student housing units are regulated in the area plan for Grønlandskvartalet (I13).

Regarding other housing options, BNE refers to future building stages and the possibility for external actors to suggest alternatives. BNE has experience with several mixed housing concepts and is positive to cooperate with different stakeholders to develop building stages according to identified needs and wishes. It would be up to any external actors to make contact if interested in buying entire building stages or participating in the development of one or several building stages. Alternative housing options like municipal housing or private rental housing are a possibility if Drammen Municipality, through Drammen Eiendom KF, or another external partner take an initiative. As BNE is one of the initiators to OsloBolig (I13), an initiative of shared ownership in Oslo (OsloBolig, n.d.), BNE might be open to participate in similar concepts in Drammen if the interest is there. Godsløkka is seen as a good option to consider concepts for the third housing sector. Since this is not a part of the area plan it would be more relevant to consider alternative options later in the process and prior to the construction of specific building stages. A percentage of a building stage could be chosen for alternative housing or financial options (I13).

In general, BNE wants to develop a sustainable neighborhood based on a combination of local aspirations, company aspirations and what will satisfy the market. The property developer is open to selling entire building stages to external actors, and this makes it possible to achieve mixed housing solutions if there is interest in the market and external partners willing to pay the cost. The focus on green solutions is high, but it is uncertain what will be implemented when construction starts and people move in. Godsen has been chosen as a temporary space for local actors to contribute and develop a community center that will transform into a permanent community building with local participation and multiple possibilities.

5.2 Expert recommendations

Both Duchemin et al. (2008) and Langemeyer et al. (2021) describe how different UA tools and functionalities can contribute to sustainable development (Figure 3 and Figure 4), while the World Bank (2013) specify the importance for people with different identities and life situations to be included in different spaces, markets, and services (Figure 7). Based on expert opinions given in interviews and input given through the questionnaire, recommendations on how Nye Nybyen can develop into an inclusive neighborhood, and how the RCUA can provide tools to secure social inclusion in the new neighborhood are presented. Expert recommendations are given considering possibilities at Godsen in its present condition, and post rehabilitation and development of green areas. Recommendations on the role of the RCUA are given considering how a RCUA may contribute to the area represented by the informant and what are their aspirations for Godsen and a RCUA.

5.2.1 Inclusive urban development

Duchemin et al. (2008) defines space appropriation as an important part of UA in urban planning (Figure 4). The World Bank (2013) specify the importance of access to physical, social and economic spaces, access to financial systems and the possibility to own property as crucial for inclusion (Figure 7). Drammen Municipality wants to be inclusive and sustainable and offer inclusive and sustainable housing (Drammen Municipality, 2021c).

Respondents to citizen participation initiatives and interviewed informants call for sustainable solutions, reuse of resources and active inclusion of different types of residents in housing projects at Strømsø (I01; I02; I03; I08; I09; Østfold Internasjonale Teater, 2022). Some informants are worried the Strømsø population will change, and that different people will live in the area, but most informants look at Nye Nybyen as a positive development that will connect Nybyen and Strømsø to other parts of the city and are not worried about future gentrification if inclusive measurements are implemented (I03; I08; I09; Questionnaire).

BNE reports having experience with inclusive building projects cooperating with external partners like Signaturhagen, and to be open to alternative housing options as part of different building stages (I13). Expert informants recommend mixed housing options to secure social inclusion at Nye Nybyen and encourage the municipality to use the negotiation space very consciously and forward-looking to make this happen (I08; I09).

Several alternatives to secure an inclusive neighborhood have been identified including different financial support schemes and alternative mortgage options. One expert recommendation is to secure 40 percent of housing units to defined groups (I08). This implies 320 out of 800 housing units. A cooperation between BNE, Drammen Municipality, the NSHB, and external partners can secure loans and investment grants from NSHB (I09; I08). The NSHB offers loans to secure housing quality, rental housing for disadvantaged, student housing, start loans to first time buyers, kindergartens, care homes, nursing homes and care initiatives like spaces for daytime activities (Forskrift om husbanklån til omsorgsbolig mv, 2003; Forskrift om lån fra Husbanken, 2019; I08). Additionally, NSHB offer competence grants for sustainable housing and building quality, grants for trials of new housing models, care homes, nursing homes, rental housing for disadvantaged (Forskrift om investeringstilskudd fra Husbanken, 2008; Forskrift om omsorgsboligstilskudd fra Husbanken, 2005; Forskrift om tilskudd til bolig- og byggkvalitet, 2011; Forskrift om tilskudd til forsøk med nye boligmodeller fra Husbanken, 2021; Forskrift om tilskudd til utleieboliger fra Husbanken, 2017; I08; I09).

Loans and grants have different requirements for recipients (I08). Loans can be granted to individuals or cooperating partners representing municipalities and private actors. One requirement is that rental housing supported by NSHB must be administered by a professional actor (I09). To identify possible mixed housing possibilities at Nye Nybyen, I08 and I09 recommend for Drammen Municipality to invite BNE, NSHB and possible external partners to a brainstorming workshop where different fields can meet, present ideas and wishes, identify opportunities, and design a model for social inclusive living at Nye Nybyen. Stakeholders can be: Evas Grønne Hage, Studentsamskipnaden, Byantropologene, Grønne Drammen, Signaturhagen, Områdesatsing Strømsø 2030, Nærutvalget Strømsø, Nybyen beboerforening, USN, NMBU, Drammen Municipality (different departments) and other external partners (Attachment 7: List of stakeholders).

Figure 32 shows a model for mixed housing combinations with the possibility for NSHB loans and investment grants when including 40 percent of 800 housing units (320 units total). Loans and grants supporting lifetime homes, senior housing, student housing, care homes for people with dementia or intellectual disabilities already exist. Safe housing for elderly (trygghetsbolig) is a new concept under development. This and other new concepts might be included in the NSHB scheme in the future (I08; I09).

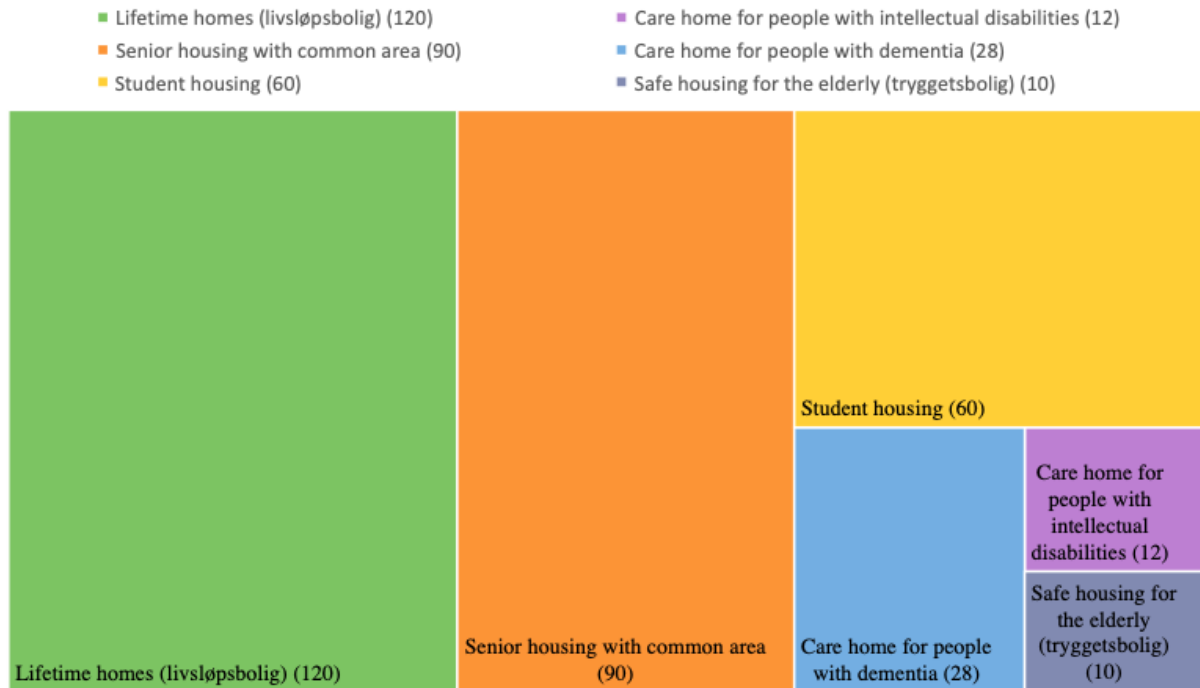


Figure 32 Example of NSHB supported mixed housing combination

Sources: I08 and I09

When social inclusion has been secured through inclusive housing, the RCUA can provide additional knowledge to the development of inclusive social environments and sustainable solutions (I03; I05; I10). By including a UA advisor at the designing phase (Indovance, n.d.), UA related issues will be targeted at an early stage and buildings, indoor and outdoor spaces can be designed to secure social inclusion. Further on spaces can be designed according to identified SDGs and up to date circular solutions including use of rain and stormwater, solar- end thermal energy and recycled use of resources including wastewater. By including an UA advisor in the designing phase, smart solutions for circular use of resources, biodiversity and temperature adjusting with benefits and costs can be included in the calculation from the beginning and unexpected cost avoided (Duchemin et al., 2008; I05; I10; Jensen, 2022). The NSHB grant for sustainable housing and building quality can be relevant for the development of experimental projects and information initiatives at Nye Nybyen (Forskrift om tilskudd til bolig- og byggkvalitet, 2011). Members of the RCUA network can cooperate and contribute to education through sustainable solutions like raised beds, seating and trellis in Figure 33.



Figure 33 Sustainable use of cuts off from plank at Godsden constructed by students from Åssiden High School based on ideas from Omtre

Photo: Maria Trettvik

Sources: Field notes and I05

In addition to supporting housing, care homes, sustainable buildings etc. the NSHB also provide grants and loans to develop activity centers, indoor and outdoor spaces in connection with care homes etc. This could be relevant for the renovation of Godsden and development of social spaces at Nye Nybyen, especially if the property developer provides a share of the costs (I08; I09). Initiatives can be a day center where elderly can meet with other generations, learn by doing, a sensory garden for impulses and initiatives offering physical activities and spaces for relaxation (I03; I08; I10). Another aspect is to use green roofs that can contribute to making the city greener and provide positive effects on biodiversity (I10). All, UA initiatives that can have positive effects on physical and mental health, provide spaces for social interaction, leisure activities and education as presented by Duchemin et al. (2008).

For the RCUA to contribute to inclusive and sustainable urban development it is important that the network include partners with UA experience on biodiversity, circular use of resources including water management, soil, compost and other resources, sustainable building techniques, growing food, pedagogy and activity coordination, and that the property developer and other actors from public and private sector are willing to cover the costs (I03; I04; I05; I06; I07; I10; I11; I12).

5.2.2 Inclusive activities

With Godsen and the square in front of Godsen as chosen temporal spaces for local development (Oswalt et al., 2013), and the future Smithestrøm Park as a potential permanent location for possible UA activities (I13), Nye Nybyen, with the RCUA at Godsen, have the possibility to be a precedent example of integrated UA in an urban development project and a future neighborhood with permanent space appropriation reserved for UA activities (Duchemin et al., 2008; I03; I05; I10). Several activities covering different UA areas have been identified by informants (I04; I05; I10; I11; I12). With the RCUA at Godsen, identified activities will be described according to the areas identified by Duchemin et al. (2008) (Figure 4) and how the RCUA can contribute to secure social inclusion through activities organized by RCUA-network members and collaborative partners.

According to the initiator of the RCUA, who is also the activity coordinator at Godsen, the RCUA network will include small local businesses, NGOs and other partners representing various aspects necessary to achieve sustainable social, cultural, economic and environmental development of Godsen and surrounding areas (I05). Network members like EGH and Grønne Drammen provide green employment through cultivation and other activities like the school garden initiative “Besøksskolehage” (I05) and “Grønnskolling”, “Bli en hagevenn” and “Naturrusken” (Grønne Drammen, 2023b), Lindum provide knowledge on compost and provide soil for sale at Godsen, while potential members like Dystopia and Lierdalen Lysstøperi represents small local businesses for local production, reused goods, activity coordination and repair and fix-it workshops. Long-term the RCUA, and several network members, would like to provide inclusive employment and participate in work assessment initiatives. Several potential members of the network already have employment policies that promote the employment of people who often find themselves excluded from the labor market (Field notes, 2023; I05).

UA activities can be organized through paid or voluntary work. Several informants report on low willingness to pay for UA activities, and grand expectations on voluntary initiatives to function long-term (I05; I10). For public sector employees a fair salary is secured, but positions are often part-time and UA tasks taken because the employee is personally engaged in the topic (I04; I06; I07; I12). Experiences from around Norway show that UA initiatives with an engaged coordinator have better success factor than initiatives without a coordinator (I04; I05; I10; I11; I12). A voluntary coordinator reports on an immense workload which wears out volunteers (I11). Professional UA coordinators report on expectations to work additional hours for free, combined with a massive workload (I05; I10). Several informants recommend for the RCUA to work towards improved contracts and working conditions for employees within the UA sector.

Informants interviewed for the present investigation have experience with inclusive green employment through UA initiatives in Oslo and Bergen including youth employment and employees with salary compensation from the Norwegian Labour and Welfare Administration (NAV) (I10; I11). These employees have worked with cultivation tasks, beekeeping, taking care of green roofs, production for sale, product design, marketing, sale, research, receiving goods for reuse initiatives, serving food and drinks, coordinate and implement citizen participation, waste management, event management, organize markets, etc. The informants have incredibly positive experiences with employees hired through inclusive employment initiatives (I10; I11).

A challenge with such initiatives has been predictability related to covering expenses, both to secure long-term employment and to cover training of employees and related administrative costs. For many employees it has been important to have continuous employment rather than temporary contracts. Especially young employees have reported the need for monthly income and part-time work during the school year (I10). When hiring employees with little experience and training or additional needs, the employer depends on paying people who can train and follow up employees. This is challenging for small and medium sized businesses and NGOs with small margins (I10; I11). Other challenges have been lost opportunities, additional workload due to loss of experienced personnel during periods without funding and a constant dependency on obtaining external funding (I10; I11). I10 and I11 recommend the RCUA to assist partners on how and where to apply for funding, and to work toward policy improvements that secure long-term funding on inclusive employment. The desire for inclusive employment is there, but there is a big risk linked to the costs this entails for small businesses and NGOs (I05; I10; I11).

Figure 34-Figure 36 demonstrates different small businesses working at Godsén.



Figure 34 Local candle production at Godsén: Lierdalen Lysstøperi

Photos: Maria Trettvik



Figure 35 EGH serving vegetable soup in front of Godsén



Figure 36 Dystopia's storage of used and ready for future use Hi-Fi equipment

In Norway cultivation season is short. Short seasons make it important for UA spaces to be multifunctional to facilitate year around activities and for UA businesses to participate in several types of activities to make a profit and secure work throughout the year (I10). I10 recommend the RCUA to support entrepreneurship and provide assistance and best practices to establish and develop UA related businesses, develop products, and help small businesses to obtain a sustainable business model that can last long-term. With multifunctional spaces, events like weddings, baby showers, birthday parties, team building etc. can be arranged, and cooperating partners of the RCUA provide services like event management, food, drinks, activities, entertainment etc.

In Drammen the municipality supports UA, but when Worldcup Drammen installations damage UA installations in Drammen city center, there was no willingness to pay for the damages. Upon a request to get the expenses covered, the UA coordinator was threatened with termination of contract by the property owner justified by pressure from forces in Drammen Municipality who gives priority to Worldcup Drammen over the UA initiative (Field notes, June 2023; I05). This makes it difficult to run a small green business in Drammen (I05).

To secure inclusive employment I10 recommend the public sector to cooperate with the RCUA and network members to facilitate inclusive employment initiatives. One example is to use public funding for employment of vulnerable groups like refugees, young adults or inhabitants with little work experience or low education levels and seize the opportunity to collaborate with small local businesses who can offer work experience and a local network.

Another possibility is collaboration between NAV and members of the RCUA as collaborating partners for work assessment and employment with different salary compensation models (I05; I10; I11).

Duchemin et al. (2008) identifies some aspects of how UA initiatives can contribute to empowerment and competence enhancing. Observations during field work and expert opinions based on a UA definition including circular use of resources and UA related activities (UA definition in 2.2), identifies several areas for different educational components (Field notes, 2023; I04, I05; I10; I11; I12). Figure 33 Sustainable use of cuts off from plank at Godsen constructed by students from Åssiden High School above, show how local high school students use regional business knowledge and learn how cuts off can be used to design and produce furniture and other installations.



Figure 37 School garden pilot at Godsen 2023



Figure 38 Raised beds and furniture produced by students from Åssiden High School

Photos: Maria Trettvik

When high school students from Åssiden High School started the project to produce small cabins, rooms and furniture as well as raised beds for the school garden and outdoor areas at Godsen, Figure 37 and Figure 38, cuts off were thrown away. Due to a visit to Omtre in Hønefoss, a potential collaborating partner of the RCUA, in April 2023, EGH learned how cuts off could be used to design installations. This knowledge was shared with the team from Åssiden High School, and the installations shown in Figure 33 designed and produced by future carpenters and construction workers (Field notes, 2023; I05). The change from throwing away cuts off to the production of furniture and other installation is an example of how the RCUA can contribute with sharing of knowledge between partners. Such knowledge exchange generates sustainable use of resources, education and empowerment of young

adults who produce installations for public use and contribute to the creation of a public space for future leisure and social interaction.

Table 13 Existing UA initiatives in and around Drammen show several school garden initiatives in the Drammen region. Most school gardens are located outside the city center of Drammen. With “Besøksskolehage”, EGH offers a school garden pilot at Strømsø. Through cooperation with the Department of Education of Drammen Municipality, primary schools in Drammen were offered the possibility to participate in a one-year school garden pilot. Four groups from three schools participate and learn about pre-cultivation, planting, taking care of plants, harvesting and how different edible plants can be used in dishes (Field notes, 2023; I05). The cooperation between the municipality and EGH show how cooperation between partners lead to outdoor educational options according to the official curriculum and provide contact with nature, knowledge and real-life experience on food security, biodiversity, and circular resource use as well as social interaction between pupils in a different environment that can inspire children to learn (I05).

Other UA initiatives show that pupils with learning or attention difficulties tend to learn better in the school garden than in a classroom. The school garden can be used as an outdoor classroom to learn mathematics, natural science, cooking, health, languages, etc. Immigrants who want to learn Norwegian seem to benefit from the combination of practical work, visible artifacts and the possibility of social interaction provided by UA activities (I10; I11; I12). In Drammen, the initiative “Bruk en pensjonist” (Use a retiree) will provide spaces where retired people share their knowledge with children and other members of the community (Field notes, 2023). Informants report on many observations where social inclusion happens through school garden activities, and both children and adults bring topics from the school garden experience to different disciplines and back home (I11; I12).

Another aspect of UA as a tool for learning and empowerment is through research and cooperation with higher education institutions (Field notes, 2023; I05; I10). I10 recommend for the RCUA to include universities and other representatives of the research community in the network and provide spaces for research and investigations on UA related topics and participate in national and international development projects financed by The Research Council of Norway, EU, and other relevant institutions. Further cooperation with partners in other cities and countries can provide good ideas and best practice exchange (I10). The RCUA coordinator indicates student internships to be relevant for several members of the network and is interested in participating in research projects (Field notes, June 2023; I05).

Responses of the questionnaire show that 11/16 (68.8 %) wants to learn more about cultivation. Respondents want interesting courses that are properly coordinated with specific topics and time schedules with options during daytime, afternoon, and evening. A variation in interest is shown, where the most popular topics respondents want to learn more about are plant selection, harvesting and storage of fruit and vegetables, cooking and preservation and composting. 31.3 % prefer to learn through practice, while 68.8 % prefer a combination of theory and practice. 6.3 % prefer to work alone, 12.5 % together with others and 81.3 % prefer a combination of working alone and together with others (Questionnaire). I04 and I11 specify the need to provide courses and other educational activities at user level when using UA activities to achieve inclusion of vulnerable groups or individuals. They recommend focusing on hands-on-topics that are useful in daily life like “how to grow potatoes” (I04), or the selection of easy-to-grow plants, like sugar snap peas, when using the educational aspect of plant cultivation for social inclusion. Further on they specify the need to teach about cultivation according to local conditions including soil types, water access, etc. and recommend for the RCUA to provide knowledge and offer courses based on local conditions (I04; I11).

Experiences from educational UA initiatives around Norway show a dependence on resource persons who are personally engaged. The activities depend on these people to continue, and informants estimate that the offer will be reduced or stopped if they withdraw (I10; I11; I12). This assumption is confirmed by a municipal UA advisor (I06). To secure stability for pupils, teachers and other users of school gardens I12 recommend the RCUA to provide support for teachers and offer courses and easy to follow examples on how to use the school garden in teaching different disciplines. Further on I10 and I11 specify the need for politicians to implement educational UA initiatives in public policies and plans. The municipality is advised to secure land for school gardens and public UA installations (I10; I11). At both national and municipal level, it is recommended for school gardens and other UA activities to be actively included in educational programs and as a tool to achieve inclusion through learning activities and social interaction. It is recommended to provide economic funding to enhance and strengthen UA activities and use UA concepts as an educational tool long term, including education of teachers and the establishment of UA education teams at schools. The RCUA should include partners that work towards local, regional and national governments for UA concepts to be included in national, regional and local policies and plans (I04; I05; I06; I07; I10; I11; I12).

Duchemin et al. (2008) identifies UA to provide spaces for leisure activities, space to spend time off, be at peace and get contact with nature, further on UA spaces are suited for individual and group interaction and provide spaces for integration and participation.

To secure participation very low key, easy to access and free services and activities are recommended (I01; I02; I03; I04; I10; I11; I12). Activities targeting different groups should be offered, and it should not be necessary for participants to be very engaged and interested in a topic to contribute or participate in (I02). To secure participation of vulnerable groups who are less probable to participate in public activities, personal follow up is crucial. It is very time consuming to achieve the participation of some vulnerable groups, and one-to-one contact and repetitive direct reminders through phone calls and private conversations have shown to be necessary (I11). Other administrative tasks like introduction to rules and regulations, follow up on maintenance of raised beds for rent and communication as a conflict prevention tool is necessary and beneficial to secure social inclusion and prevent exclusion or lack of participation (I04; I11). An experienced municipal UA advisor from a large municipality in Norway, inform that the municipality does not have any requirements to prevent harassments at UA initiatives at municipal property. Any systems to secure codes of conduct that prevent harassment at UA activities would be the entity organizing the activity (Municipal UA advisor, personal communication, 26th June 2023). The RCUA is recommended to cooperate with representatives from the municipality and interest groups which reaches out to individuals, families and groups who could benefit from activities and services offered at Godsen and by members of the RCUA network. Additionally, the RCUA should enable systems to prevent exclusion, reduce the risk of harassment and facilitate communication to ensure a safe environment for all (I04; I10; I11).

UA is an incredibly valuable tool to eliminate prejudices. Experiences from other neighborhoods selected for area initiatives show that the combination of green public spaces, cultivation and cooking was a particularly clever way to connect inhabitants in the area. To achieve successful inclusive green spaces, it is important to use citizen participation to identify local needs and design the spaces according to identified needs (I10). Further on it is important to secure public access to green spaces and ensure safe environments. If a rooftop garden is planned to be a public green space, it is important to secure public access to the roof and secure the area to prevent accidents (I10). Another crucial factor to secure inclusive spaces, as well as food security, is to offer free public toilets and washing facilities (I05; I10). If food is to be prepared, kitchen facilities are necessary. If food is to be sold, it must be

prepared in an environment which satisfy the requirements of the Norwegian Food Safety Authority (Field notes, 2023).

Questionnaire respondents recommend several components to secure social inclusion when cultivating. It is recommended to invite participants of different ages, background, knowledge level and gender to topics of common interest, and create a meeting space where networking across generations and origin can occur naturally. To reach different people it's important with multiple language marketing distributed through different channels. Raised beds adopted for wheelchair users should be offered. Activities should be offered to all ages with activities that target specific age groups, and activities that aim for different generations to meet (Questionnaire).

Informants recommend a mix of services and activities that creates a meeting space where individuals and groups representing different identities and life situations can meet both through organized and non-organized activities. The activities offered should be based on user suggestions (I04; I10; I11). For Godsen and the RCUA courses listed by respondents of the questionnaire and activities and services listed in previous studies (Table 14, Table 17 and Attachment 2: Questionnaire with results) should be used as a basis for future planning. An idea box for future wishes and suggestions should be made available at Godsen, and the RCUA should cooperate with other institutions at Strømsø to secure valuable information flow and additional activities and services to secure co-existence and cooperation of actors (I04; Østfold Internasjonale Teater, 2022).

According to expert opinions, crucial factors to succeed with social inclusion are proper organization, cultivation skills, effective communication, and good economic management (I04; I05; I10; I11; I12). Many actors who may buy services from RCUA members are obliged to follow tender regulations and established procurement procedures (Field notes, 2023; I07). The RCUA is recommended to provide support for RCUA members and UA actors regarding bid management and how to submit a tender (I07). To secure good organization UA actors need experienced coordinators (I05; I10). To succeed with cultivation and provide quality education qualified personnel is crucial and it is necessary to secure fair payment for professionals (I05; I10). It is recommended for the RCUA to include partners who can guide others in good administrative and financial management which can work to influence policies to secure funding for fair wages when UA activities are used as a tool for social inclusion. Further on it is important to hire experts on cultivation and educated teachers to secure quality education, high level production, continuous follow-up of the cultivation areas and food security (I05; I06; I07; I10, I12).

5.2.3 Healthy food access

Food production is one of the main components of UA (Norwegian Ministries, 2021). Through UA's ability to maintain adaptive capacities in urban areas, UA can be used as an important tool during periods of crisis and secure food access to the local population (Langemeyer et al., 2021). Informants have clear recommendations on how the RCUA can contribute to limit social vulnerability and food poverty. The main expert recommendation is to use recommendations given for inclusive urban development (5.2.1) and inclusive activities (5.2.2) to secure access to UA spaces, participation in educational and social activities and knowledge on how to cultivate, harvest, use and store cultivated produce (I04; I11; I12). Increased knowledge and practice on growing food is expected to have incredibly positive effects on UA rentability and production levels (I06). To achieve successful production levels, it is especially important to increase the knowledge on the use of fertilizers (I04). Know-how on seed collection and storage, conservations and storage of produce, compost, and techniques to make fertile soil, can contribute to reduced cost of growing your own food and increase population preparedness (I04; I05; I06).

An informant and a questionnaire respondent are concerned about pollution levels in the middle of a heavily trafficked area and old industrial area in the center of the city (I10; Questionnaire). An expert recommendation to secure food safety is:

“...to provide complete documentation of possible soil and remaining infrastructure contamination with focus on industrial chemicals (incl, PCB, BFRs, PFAS etc), metals (Pb, Cd, Al, etc) and soil pesticides (DDT, HCH, etc) before establishing agricultural activities for products meant for human consumption.”

(R. Kallenborn, personal communication, 5th July 2023).

Further knowledge on food safety should be shared during cultivation and cooking activities and courses on how to secure food safety is recommended (Field notes, 2023).

To reach out to vulnerable groups it is recommended to produce fruit, vegetables and herbs according to local needs, that are easy to produce, people like, and that are used in daily cooking (I04; I11). Respondents of the questionnaire identify apples, blueberries, carrots, potatoes, strawberries, salad, coriander, and mint, among others, as produce they like. The most popular ingredients when cooking are carrots, onions, tomatoes, potatoes, salad, coriander, dill and parsley. While respondents state to usually eat apples, strawberries, raspberries, blueberries, pears, plums and black currants. Some respondents state that several

fruits and berries are too expensive to buy. One respondent solves this by harvesting in the forest (Questionnaire). Considering the responses and expert recommendations on offering edible produce to the public, fruit, vegetables and herbs listed by respondent of the questionnaire is recommended to be offered by UA actors, produced in an edible park, made available for free harvest by the public and to be the chosen varieties for cultivation and cooking courses.

Further on local initiatives, like free school meals at Brandengen School, should be combined with local school garden cultivation, inclusive employment initiatives and cooperation with local businesses and NGOs that offer local food production, catering services and employ local population (Drammen Municipality, 2023d). The RCUA should facilitate such cooperation. (I05)

I03 recommend Godsen and the RCUA to offer free fruit and vegetables to vulnerable groups. 73.3 percent of questionnaire respondents give away their surplus production when growing food, while 13.3 percent throw it away. Several expert recommendations suggest for Godsen to have stands to share and give away goods (I03; I05; I10; I11). An additional initiative could be to offer a space where surplus production is offered to visitors.

I10 identifies the following aspects as important to facilitate healthy food access: knowledge, access to healthy produce, learn to grow at home, secure a safe and non-toxic environment, and recommend for the RCUA to offer education through a school garden and courses at every level from kindergarten to elderly. Further on the RCUA should secure knowledge about rules and regulations regarding blacklisted plants, use of certified potatoes and spread and treatment of plant diseases (I04; I06), as well as promote environment friendly soil types, peat-free compost, biochar and organic production methods (I03).

68.8 percent of questionnaire respondents wants to learn more about cultivation and how to use the produce. The most popular topics are “Plant selection”, “Harvesting and storage of fruit and vegetables”, “Cooking class (jam, jelly, fermentation, tea, herbal salt)” and “Composting”. Considering that “Organic farming” is the most popular preference for respondents to grow their own food (62.5 %), followed by “Healthy food” (56.3 %), “Peace and relaxation” (43.8 %) and “be with others” (37.5 %) (Questionnaire), courses on these topics providing a social and peaceful space is considered to respond to users' requests and expert recommendations (I03; I04; I05; I10; I11; Questionnaire).

Another mean of action to facilitate access to healthy and locally grown food for vulnerable groups, is to provide shared garden equipment and tools at different locations close to where people live (I11). Access to high quality tools and equipment, combined with

best practice knowledge on how to use it, has shown to increase participation. Additionally, experience have shown that participants feel empowered when sharing knowledge obtained previously with others at UA activities. The combination of know-how and tool access is expected to increase the possibility of people growing edible plants at home (I05; I10; I11; I12).

5.2.4 Governance

According to Langemeyer et al. (2021) the multiple functions of UA makes it necessary to implement UA in strategies for urban planning to secure sustainable urban development. As shown in the previous subchapters, expert recommendations include repetitive inputs and recommendations regarding the need to influence and develop policies and plans to secure spaces for UA initiatives, provide funding for cultivation activities and guarantee social inclusion and healthy food access.

With Strømsø 2030, Strømsø City District has a prominent level of focus on social inclusion. Knutepunkt Strømsø is a new municipal entity with interdisciplinary management. It is a pilot where the manager is responsible for the health center, culture, “innbyggertorg” (citizen service center), PPT (pedagogical and psychological service), family welfare and the area-initiative. The interdisciplinary structure has shown positive effects on cooperation between fields and how the city district provides services to the public (I04). The municipality wants to listen to the population, but after the municipal merger it has been difficult to access information, know who is responsible for what, and identify authority levels. Additionally, the financial situation of the municipality has been bad. The result of this is that it is difficult to secure land and funding for UA initiatives (I05).

Expert experiences report on a general challenge to access information from municipalities and the dependence of engaged individual municipal employees to secure UA initiatives (I05; I11). Table 18 show a list of expert recommendations and proposals to secure UA initiatives and facilitate social inclusion and access to local healthy produce for vulnerable groups and local population.

Table 18 Expert recommendations and proposals to secure UA initiatives and social inclusion

Instrument	Recommendation	Proposals
Legislation	Secure that existing laws and regulations are followed.	<p>Create a contract template for UA initiatives to make it easier for the property owner and predictable for UA actors and users, including:</p> <ul style="list-style-type: none"> a) Lease of land or property for cultivation of urban areas b) Environmental protection legislation c) Agricultural legislation d) Code of conduct for social inclusive activities in contract including requirement of a notification system
Legislation	Prohibit development of arable land.	<ul style="list-style-type: none"> - The municipality should not allow development of arable land. Area and regulatory plans should be adopted accordingly. - National authorities should prohibit development of arable land.
Legislation	The municipality should use area and regulatory plans to secure 40 percent of inclusive housing in urban development projects.	<ul style="list-style-type: none"> - The municipality should invite relevant stakeholders to a workshop to design inclusive neighborhoods when urban areas are developed (Figure 32).
Legislation	The municipality should revise procurement and tender regulations.	<ul style="list-style-type: none"> - UA should be included in the operation of green areas.
Urban planning and design	The municipality should secure areas for UA initiatives.	<ul style="list-style-type: none"> - The municipality should identify areas for possible UA use. - The municipality should start a pilot for cultivation in urban parks to test pros and cons. The pilot should be put out for tender as a UA cultivation project with duration 4+2+2+2 years.

Instrument	Recommendation	Proposals
Education	Include school garden in policies and plans.	<ul style="list-style-type: none"> - All kindergartens and schools should have access to a school garden. - A team of school garden teachers should be established in the municipality. - School garden education should be implemented in the syllabus for all disciplines.
Education	Elaborate how-to guidebooks on how to use the school garden in different disciplines.	<ul style="list-style-type: none"> - Cooperation between higher education institutions (USN, NMBU, etc.), schoolteachers and UA actors.
Economy	The municipality should secure long-term funding to secure vulnerable groups as the target and receiving group.	<ul style="list-style-type: none"> - The municipality should provide funding for local UA initiatives. - The municipality should develop and administer annual funds for UA initiatives. - UA initiatives should be included in specifications for social inclusive measures. - A municipal UA advisor should be employed full time.
Economy	Public and private actors should secure green and inclusive employment.	<ul style="list-style-type: none"> - Include green employment in bid specifications. - Include inclusive employment in bid specifications.
Economy	Secure re-use and circular use of resources.	<ul style="list-style-type: none"> - Include in bid specifications.

Based on Table 6 and modified by author according to expert recommendations

Sources: Dubbeling et al. (2010); I05; I08; I09; I10; I11 and I12

In general experts recommend for the RCUA and network members to work towards an implementation of suggested recommendations in local, regional and national policies and plans.

5.3 Concluding remarks

In Chapter 5 findings based on expert recommendations and other informants are presented. The findings part from identified theories on UA and are supplemented by findings from previous investigations and the literature review. To explore various aspects the findings are divided into local aspirations to identify what local citizens want in and for their community. Further on identified possibilities planned within the selected case study is presented before expert recommendations based on the questions in the interview guide are explored (Attachment 5: Interview guide). As semi-structured interviews were conducted topics outside the interview guide were introduced by informants. This broadened the perspective of the study. Additionally, questionnaire respondents added valuable information.

To answer the research questions, the expert recommendations have been presented according to topics in the sub-research questions. Considering the transdisciplinary aspects of UA, many of the findings have overlapping functions and are valid for several aspects of UA. Governance has been shown to be a pervasive factor for inclusive urban development, inclusive activities, and healthy food access. Further on a direct link between healthy food access and inclusive activities has been identified, while inclusive activities depend on access to space to exist. These findings confirm the need for transdisciplinary action to secure UA initiatives, social inclusion, and healthy food access.

In Chapter 6 the findings will be discussed in relation to the research questions and the theoretical framework, and a proposal on how to implement UA in future urban development projects presented.

6 Discussion

In Chapter 6 the sub-research questions are discussed according to the theoretical framework presented in Chapter 2 and findings presented in Chapter 4 and 5. The structure is parted from the three sub-research questions followed by a discussion regarding the main topic. The topic for the current investigation is complex, and both the theoretical framework and findings have identified many aspects to be considered. Because of this, the presentation of findings in previous chapters also includes a partial discussion. All issues will not be re-discussed in Chapter 6 which will focus on a selection of identified topics and discuss whether the findings answer the research questions. The discussion of the current investigation should be seen as a combination of these chapters.

6.1 RQ1: What is the agency of different stakeholders in the development of Godsen as a regional center for urban agriculture?

The theoretical framework and the findings, both through data collected during field work, interviews, and document analysis, focus on multiple stakeholders in UA initiatives (Dubbeling et al., 2010; Langemeyer et al., 2021). According to the findings this is also true for the development of Godsen as a RCUA.

Through the stakeholder analysis (3.2.2.2) and the identified stakeholders (4.5) a selection of main actors for the development of the RCUA at Godsen has been recognized. As previously defined, the stakeholders and actors represent multiple sectors with different interests, roles, and power (Bryson, 2004; Buser, n.d.). Figure 39 show how the property developer and owner of Godsen, BNE, has delegated the coordination of Godsen activities to EGH. Further on the administrative affiliation of the RCUA has been moved to Grønne Drammen who is now responsible for the coordination of the RCUA and contact with local businesses and network members. Figure 40 show how the development of the RCUA is dependent on input and participation from both network members and other stakeholders.

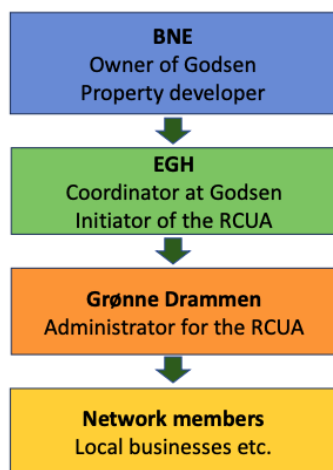


Figure 39 RCUA relations

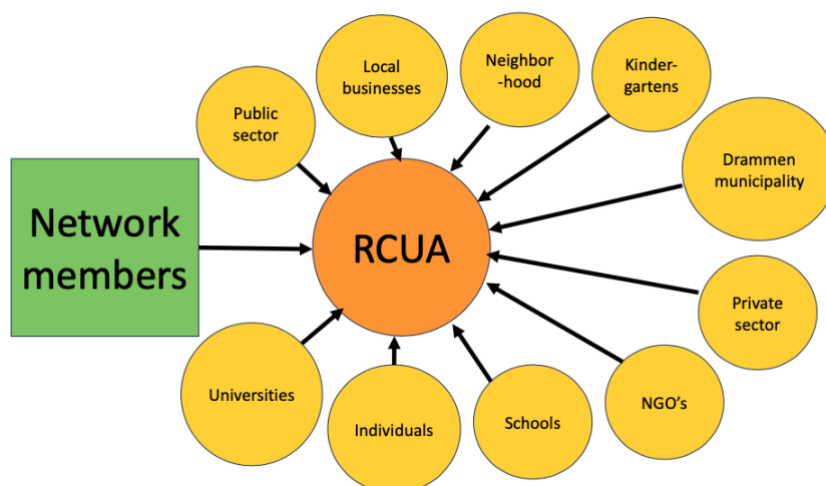


Figure 40 RCUA dependency on stakeholder input and participation

Source: Field notes

The agency of EGH, Grønne Drammen, BNE, local businesses and NGOs, Drammen Municipality, Viken County Municipality and local population will be discussed further below.

6.1.1 EGH and Grønne Drammen

EGH and Grønne Drammen are two separate entities. Since Grønne Drammen has been established due to a need to separate private business initiatives and social and voluntary based initiatives, and the people behind Grønne Drammen and EGH are overlapping with the CEO of EGH as the chair of the board of Grønne Drammen, their agency is seen as overlapping with a few differences (Field notes; Proff, 2023).

EGH wants to establish and develop a RCUA in Drammen to bring together different actors and facilitate coordination between actors. Their goal is to flourish as a professional UA actor in the Drammen region and create an economically sustainable business model where UA products and services are sold to public and private actors. To be able to do this EGH wants the RCUA network to be strong and have a loud voice to strengthen the role of UA in the public debate (Field notes; I05).

Grønne Drammen is an association that wants to provide UA activities in the Drammen region. The association wants to apply for external funding to provide educational and social inclusive activities for the local population using local volunteers and resources. As the administrator of the RCUA, Grønne Drammen wants to develop spaces for network members to offer their products and services (Grønne Drammen, 2023b; Field notes).

Both EGH and Grønne Drammen want to create a strong RCUA to influence policymakers and implement UA in area and regulatory plans. Further on, they want the RCUA to be a natural component for social initiatives and to secure sustainable development in Drammen according to the SDGs (Field notes; I05).

6.1.2 BNE

BNE wants to use Godsen as part of a placemaking strategy to create a quality place that will benefit the development of Nye Nybyen (Field notes; I13). As explained by Wyckoff (2014) tactical placemaking often involves local stakeholders that offer short term initiatives at a low cost (2.3.3). BNE wants to collaborate with local actors and the community to try out different activities and projects that can be adjusted repeatedly during the time of construction and create a positive impact on the transformation of Nye Nybyen and increase the property value (Field notes). This method corresponds to the placemaking approach presented by Wyckoff (2014).

When EGH approached BNE with the idea of a RCUA at Godsen, EGH was identified as a local partner that can contribute to this development, and the RCUA as an example of projects that can provide local participation and take part in the desired green and sustainable transformation of Nye Nybyen. For BNE the most important aspect is to secure prominent level of participation from local actors to create a space for multiple activities that secures a wide range of visitors to make Godsen known to the population in and around Drammen. Secondly, the green and sustainable image of Nye Nybyen makes local partners which represent sustainable alternatives to be preferred when choosing collaborative partners for the development of Godsen. The RCUA can provide the connection to such partners and participate in the process to create a quality place where people want to work, live, learn and play in (definition of placemaking in 2.3.3) (Field notes, 2022; 2023; I13; Wyckoff, 2014).

6.1.3 Local businesses and NGOs

As previously stated in 4.5.8, interest levels are considered to vary between local businesses and NGOs. For entities that are potential members of the RCUA network or look at Godsen and surrounding areas as possible locations for projects, activities or as a future working space, it is important to develop a space that suits their needs. Currently, local businesses and NGOs like EGH, Dystopia, and Lierdalen Lysstøperi Godsen for storage, workshops, repairs of used goods and production, while the local horticultural society (Konnerud Strømsgodset Hagelag) offers courses on compost and the historical society

(Drammen Historielag) provides historical information through presentations and a future history exhibition etc. Lindum cooperates with EGH to sell peat-free soil at a central location and provide soil for the school garden pilot and cultivation installation at the square in front of Godsen. Østlandsutstillingen and other local cultural actors wants to use Godsen Scene, Hall 1 and surrounding areas for exhibitions, concerts, and other artistic activities (Field notes; I03; I05).

Dystopia and Lierdalen Lysstøperi represents actors that wants to participate in the development of the RCUA through multisectoral cooperation, while Østlandsutstillingen has focused on protecting their own interests and have shown little interest to contribute to the RCUA or sharing the space with other actors during their exhibition. Actors like Drammen Historielag and Konnerud Strømsgodset Hagelag show appreciation of access to the space and participate through sharing of professional knowledge, while Lindum provide raw materials and share knowledge (Field notes). This confirms differences between local businesses and NGOs and their agency and agenda in the development of the RCUA in Drammen.

6.1.4 Drammen Municipality

At the administrative level, different departments in Drammen Municipality have various levels of participation and interest to participate in the development of the RCUA (Field notes; I04; I05; I06; I07). The Department of Environment and Agriculture has entered a letter of intent (Evas Grønne Hage & Drammen Municipality, 2021) and offer guidance (I07), while participating schools for the school garden pilot have been selected through cooperation with the educational department of the municipality (Field notes; I05). The municipality is positive to, and supports, the development of a RCUA in Drammen, and provides guidance and other services to the development of the RCUA according to the general tasks of the municipality towards local actors (Field notes; I05; I07).

Dubbeling et al. (2010) argues that it is important to improve the understanding of how UA can contribute and implement UA in policies and strategies at all levels. During the investigation, BNE has shown an interest to implement UA initiatives at different levels. A document analysis of strategies and plans for Drammen Municipality has identified many UA relevant areas like urban planning, water management, health, employment, education, social inclusion and food security, but UA is not mentioned as a tool to achieve development in these areas (Drammen Municipality, 2019, 2021c). The investigation shows little understanding in municipal policies and plans on how UA can provide these tools at

municipal level. This reflects in the municipality's interest to participate in the development of a RCUA.

6.1.5 Viken County Municipality

Viken County Municipality contributes to the development of the RCUA through financial support and the cooperation with Åssiden High School to use Godsen as an arena for education where students combine learning with a contribution to the development of spaces indoors and outdoors through furniture and installations at Godsen and the square in front of Godsen (Field notes, 2023; Viken County Municipality, 2021).

Through funding Viken County Municipality function as an important silent partner in the development of the RCUA at Godsen. The participation of students from Åssiden High School contributes both to the accomplishment of the placemaking strategies, through the inclusion of local youth in the development of physical spaces, and the development of the RCUA through the construction of UA installations meant for RCUA use, the cooperation between potential RCUA partners to develop sustainable solutions and as a starting point for the RCUA as an educational arena.

6.1.6 Local population

The RCUA is considered little known to the public as it is still under development (Field notes). During the planning stage, responses in citizen participation have been used in the development of concepts related to the development of Godsen and the RCUA and representatives of the local population has shown an interest in cultivation at Godsen through responding to the questionnaire (Field notes; Questionnaire). Information aimed at the population has been minimal, which makes it difficult to determine what the local population thinks and what role they want to play in the development of the RCUA. Members of the population who have shown interest in the RCUA are people with a high level of interest in cultivation or circular use of resources and are also affiliated to collaborative partners included in the list of stakeholders (Field notes). One respondent to the questionnaire has stated for Godsen and the surrounding area to stay as a parking space. This manifests local resistance against the development and is an interesting aspect that has not been further investigated within the master thesis framework.

Through the identification of stakeholders and actors, and the stakeholder analysis, including an analysis of power and interest, the research conducted for this investigation has answered the first sub-research question (RQ1) and identified the agency of different stakeholders in the development of Godsen as a RCUA. It shows BNE as a main actor with very high levels of power that has chosen to collaborate with local actors to achieve the property developers' goal of placemaking to create a popular place where people want to live, work and visit (Wyckoff, 2014). The RCUA is one component toward this goal.

Local businesses, NGOs and public sector actors interested in participating in the development of Godsen and the RCUA take advantage of the BNE decision to develop their own businesses or as a location for activities. While several local actors are eager to develop the RCUA and Godsen immediately, BNE is holding back to secure its own interests of the development of a quality place long-term. The investigation has shown that both parties are happy with what has happened this far (I05; I13).

6.2 RQ2: What can be the role of the regional center for urban agriculture in limiting social vulnerability and food poverty?

The urban agriculture triad (Figure 3) demonstrates how UA can contribute to multiple areas including food production, social unity, community empowerment and resilience involving stimulation of community networks and individual recuperation when a crisis occur (Langemeyer et al., 2021). According to findings from this investigation the RCUA should contribute to changes in policies to secure social inclusion and local production of healthy food. To secure this multistakeholder participation is necessary (Dubbeling et al., 2010). Through multidimensional tools targeting specific areas, the RCUA can provide UA initiatives that contribute to sustainable development (Duchemin et al., 2008). The RCUA should create a meeting space where network members can offer goods and services to the population targeting vulnerable groups. Simultaneously, spaces where people with different identities, or in vulnerable life situations, can meet others through inclusive activities where participants meet on common ground should be secured (Chapter 5).

For the RCUA to contribute to limit social vulnerability and food poverty, the center should use principles presented in the national strategy for UA (Norwegian Ministries, 2021) and identified measures to achieve climate measures towards 2030 (Norwegian Environment Agency, 2023), as well as regional and local strategies and plans to achieve social development and the SDGs (Drammen Municipality, 2021c, n.d.-e; Viken County

Municipality, 2023). To limit social vulnerability, it is important to secure social inclusion. To achieve social inclusion people with different identities and in diverse life situations need access to participation in various levels of society (Figure 6 and Figure 7) (World Bank, 2013) Further on United Nations (2016) states that actions at all levels in society and social policies are necessary to achieve social inclusion. Services and activities provided by the RCUA and network members should contribute to provide access to areas and levels in society at local and regional level. General and targeted measures that improve access to opportunities positively impact social inclusion (World Bank, 2013). To discuss how the RCUA can limit social vulnerability and food poverty for all citizens in the region, the possibility to use the RCUA and network members to provide access to different spaces, markets, and services (Figure 7) will be discussed according to the findings of the investigation.

6.2.1 Access to physical, social and economic spaces

Located at Godsen the RCUA can provide a physical space where groups and individuals can see and be seen, organize and participate in cultural, political, and social discussions and activities in near proximity to public transportation and other urban services. The RCUA and network members can contribute with spaces where individuals and groups can express their opinions and take part in decision making and the development of the community. The RCUA can facilitate cooperation between partners that allows vulnerable groups and individuals to participate in spaces where cultural, political, social and economic aspects can create exclusive boundaries that tend to prevent their participation.

Through the creation of accessible outdoor and indoor meeting places made for activities where people can meet to relax, cultivate, learn, repair, or create, people can meet independent of identity, group affiliation, socioeconomic status, etc. In these spaces relationships can develop, networks built, and social vulnerability be reduced. The RCUA should contribute to establishing accessible green spaces for cultivation and to developing public edible parks for public harvest. Furthermore, the RCUA should contribute to prevent food gentrification and secure access to space for non-profit local produce and catering services (Sbicca, 2018).

Another aspect of access to physical space is access to living in a defined area. Findings of the investigation shows that citizen participation responses, municipal strategies and expert recommendations agree that urban areas need for people with different identities and life situations to live in the neighborhood for a neighborhood to be inclusive. Several

respondents aspire for Nye Nybyen to offer inclusive housing (Drammen Municipality, 2021c; I03; I08; World Bank, 2013; Østfold Internasjonale Teater, 2022). Access to live in a neighborhood can be related to access to credit and housing markets, this will be discussed in 6.2.2. It can also be related to the rental market and access to a predictable high-quality market for rental housing. This can be municipal housing or rental housing provided by serious professional actors (I08; I09; Meld. St. 28, 2022-2023; World Bank, 2013).

Findings show a gap between local aspirations and developer expectations. While local aspirations lead towards a diverse neighborhood, developer expectations identify a few groups like elderly that moves from detached houses to departments, students and people who moves to Drammen for work as probable inhabitants of the new neighborhood. To secure inclusion of vulnerable groups as inhabitants of Nye Nybyen, the RCUA can work towards changes in policies and plans, provide competence on social inclusion and facilitate transdisciplinary cooperation to design inclusive housing solutions.

6.2.2 Access to markets

Through network members the RCUA should provide knowledge, services, and spaces to secure access of vulnerable groups to labor, credit, land and housing markets (World Bank, 2013). The findings in Chapter 5 explore how the RCUA and network members can contribute to access the labor market through inclusive employment. The role of the RCUA should be to facilitate cooperation between partners and make it easier for members to participate in apprenticeships, work assessment and choose inclusive employment initiatives when hiring. The RCUA should work to establish green employment positions within the different areas defined by Duchemin et al. (2008) (Figure 4) to contribute to sustainable development, and to secure fair wages and working conditions for UA professionals. Further on the RCUA should provide guidance to UA businesses and organizations to secure good management.

For vulnerable groups, access to the credit and housing market to own land and property can be challenging (World Bank, 2013). Experts recommend using existing grants and credit options that target vulnerable groups and individuals to secure their access to credit and to own property. Further on, existing grants and credit options should be used to develop inclusive public spaces, care and retirement homes, kindergartens, etc. (I08; I09). Other informants aspire for alternative options for vulnerable groups to buy their own home (I03). The property developer is open to test concepts of the third housing sector (I13).

During the investigation it was identified that neither the informants nor the developer considers gentrification to be an important issue because of the development of Nye Nybyen. This is justified by the fact that the area is a former closed off railway property and not a renovation of an existing neighborhood. Another aspect is that the development is looked at as an improvement that will give access to a new area. Although some voices state the importance of measures that ensure that people at Strømsø can stay in the area, gentrification or displacement of existing residents are not hot topics when talking about the development of Nye Nybyen (I03; I04; I08). Cavicchia (2022) argues that the process of gentrification and displacement can happen around newly developed urban areas. A study of areas around Løren in Oslo states that exclusionary pressure due to lack of access to housing for vulnerable groups can lead to displacement in surrounding areas.

The positivity identified regarding the development of Nye Nybyen might lead to a neglect of negative future effects on neighboring areas. Considering that housing prices in Nybyen (Table 15) are already higher than average prices at Strømsø and in Drammen (Drammen Municipality, 2022a), this can lead to exclusion and displacement. The RCUA should facilitate the establishment of a third housing sector pilot and the cooperation between relevant stakeholders to include existing funding and grants for the development of Nye Nybyen. Posteriorly the RCUA should work to implement alternative funding and credits in policies and plans at local and regional level to secure inclusive housing and sustainable development at regional level.

6.2.3 Access to services

For vulnerable groups to be included and access public and private services, it is important with targeted measures to enhance human capital and provide access to basic as well as complementary services. This includes access to information, education, healthcare, and good infrastructure to secure basic needs and equal access to participation, mobility, and information (World Bank, 2013). Both local aspirations and expert recommendations want inclusive education through courses and activities. The property developer and the RCUA initiators want such activities to be offered at Godsen. Considering its location close to the public transportation hubs, Godsen and the RCUA are accessible by public transportation (Chapter 5; Figure 19).

The RCUA and network members can offer courses and learning activities as well as access to arable land or raised beds, shared tools and a social community of people who like to grow plants. One of the main educational activities is the school garden which can offer a

variety of activities and educational programs to groups and individuals of all levels of society and provide knowledge that can contribute to better preparedness and access to healthy edible produce and facilitate for the local population to cultivate fruit, berries and vegetables at home or in community gardens (I03; I04; I05; I06; I10). Through a wide selection of courses and activities that provide possibilities to learn by doing, share knowledge, access updated and correct information and get to develop personal relationships, the RCUA can contribute with knowledge on growing and preparing healthy food and how-to repair used products, create new products in a sustainable manner and participation in the new economy in a safe inclusive and respectful environment (Drammen Municipality, 2022b; United Nations, n.d.; World Bank, 2013)

Through the identification of different roles, the RCUA can limit social vulnerability and food poverty through social inclusion measures, the research conducted for this investigation has answered the second sub-research question (RQ2). According to the findings of the investigation it is important that the RCUA and network members focus on providing access to participate in spaces, markets and services to groups and individuals representing different identities and life situations. For many of the activities offered by RCUA and network members, a combination of access to spaces, markets and services is crucial. With a diverse population living in Nye Nybyen and activities that aim to reach a broad target group, informants claim it to be more probable that visitors of different origin and identities will seek out activities and spaces in the area. Offering access to these areas, as well as the social relationship participation in these spaces implies, the RCUA can contribute to limit social vulnerability and food poverty at the regional level.

6.3 RQ3: How can Godsen secure an inclusive environment for all citizens in the region?

EGH is both the initiator of the RCUA and the activity coordinator of Godsen. This makes the concepts of Godsen and the RCUA overlap, and many aspects valid for RQ2 are also valid for RQ3. Findings show that it is important to view the environment at Godsen together with external impacts activities and services at Godsen can have at local and regional level. As the RCUA part from a very wide understanding of UA, wanting to include a wide range of sectors in its network to develop a resilient and sustainable community, a variety of activities and services to secure inclusion should be offered. According to the activity coordinator of Godsen, the idea is to offer a wide range of activities to make the space known

and for visitors to want to return. This combines the interest to develop a RCUA in Drammen and the placemaking initiative to create a quality place. Godsen is the selected space for this development to happen (Field notes; I05; I13; Wyckoff, 2014).

As stated above, people with different identities and life situations need access to different areas at all levels to be socially included (Figure 6 and Figure 7) (World Bank, 2013). Based on this assumption, an inclusive environment at Godsen implies that groups and individuals with different identities and life situations have access to various levels and areas at Godsen. For Godsen to secure an inclusive environment for all citizens in the region services and activities at Godsen should contribute to provide access to different areas and levels in society at local and regional level (6.2). For Godsen to achieve inclusion of different groups, cultural, social and political aspects that target different groups need to be taken into account (World Bank, 2013).

Citizen participation and expert recommendations point out that activities should be diverse and represent diverse cultures, languages, and backgrounds. Activities should also be free or low-cost to secure the participation of many. Reuse of goods, physical workshops to meet and repair or create should be easily accessible. Cultural and artistic activities are recommended. Furthermore, the activities should target different ages as well as offer spaces where different generations can meet and work together on topics of common interest. Physical space needs to be adopted and universally designed.

To achieve an inclusive environment the coordinators of Godsen should cooperate with collaborative partners with direct access to diverse population groups and local businesses, and future employees working at Godsen should represent diverse groups to secure extensive representation. The establishment of a school garden and other physical facilities reaching out to children, teenagers, young adults, adults, and elderly, can provide common access to large groups that makes the space a known place to many and a natural meeting point. To secure an inclusive environment for all citizens in the region Godsen should provide low threshold activities like concerts, cultivation, courses and workshops, combined with a café, exhibition hall, workspaces and playgrounds as well as indoor and outdoor spaces to hang out – a quality place where things happen, and where you can come to do nothing or all – just as you please.

Through the identification of different areas, services, and activities the findings of this investigation explore various aspects on how Godsen can secure an inclusive environment for all citizens in the region, the research conducted for this investigation has answered the third sub-research question (RQ3).

6.4 Main topic: By focusing on the case study of Godsen, the thesis will investigate how a center of urban agriculture can provide multidimensional tools for social development at regional level

During the investigation of the case study of Godsen, many aspects of the development of a RCUA at Godsen, and how the center can provide multidimensional tools for social development at regional level, were explored. Based on the sub-research questions the investigation has found that the RCUA can contribute towards policy makers with knowledge and best practice to implement social inclusive elements in policies and plans (Dubbeling et al., 2010; Langemeyer et al., 2021). Further on the RCUA can contribute to provide access to spaces, markets and services and offer targeted measures to secure access for vulnerable groups according to principles presented by the World Bank (2013). For this to happen, it's necessary for the RCUA to establish a broad network that covers different sectors, expertise and reach out to a wide range of the population including vulnerable groups. Table 19 identifies selected institutions and organizations that are recommended as partners of a RCUA network. Identified bodies can have various roles like providing activities, knowledge, services or goods, or to reach out to possible users of the RCUA, promote possibilities and secure inclusion of targeted groups.

Table 19 List of institutions, areas and expertise to be included in the RCUA network

Sector	Institution(s) / organizations(s)	Area or expertise
Civil society	Non-profit UA providers	Cultivation, biodiversity, water management, food quality, project management, activity coordination, circular use of resources, reuse, environment, urban planning, entrepreneurship, etc.
	Neighborhood associations	Knowledge of local needs and aspirations, etc.
	Local individuals (non-affiliated)	Citizen representation, local knowledge, etc.
	FAU (The Parents' Council's working committee) at local schools	Represent and reach out to parents of school children.
	Artistic and cultural institutions	Event management, marketing, etc.

Sector	Institution(s) / organizations(s)	Area or expertise
Civil society	Political parties	Represent and reach out to specific groups, organize activities, etc.
	Immigrant organizations, groups and networks	Represent and reach out to specific groups, organize activities, etc.
	Special interest groups	Represent and reach out to specific groups, organize activities, etc.
	Non-profit research institutes	Wide range of expertise, organizing activities, etc.
	Agricultural organizations	Knowledge-sharing, organizing activities, wide range of expertise, etc.
	Labor organizations	Fair and inclusive employment, prevent social dumping, knowledge-sharing, organize activities, etc.
	Student organizations	Represent and reach out to students, organize activities, etc.
	Humanitarian organizations	Reach out to a wide range of people, especially vulnerable groups, organizing activities, provide services, etc.
	Others	
Public	National Government	NAV, Norwegian Food Safety Authority and other national institutions present at local level.
	County Governor	Sustainable development of all sectors according to national strategies and plans.
	County Municipality	Business development, urban development, high school education, health, infrastructure, public transportation, etc.
	Municipality	Environment, education (kindergarten, primary, secondary, adult, etc.), agriculture, urban planning, infrastructure, water and wastewater, the park service, NAV, youth

Sector	Institution(s) / organizations(s)	Area or expertise
		initiatives, area-based initiatives, political bodies, etc.
Public	Higher education institutions	USN, NMBU, etc.
	Public research centers	Wide range of expertise, organizing activities, etc.
	Others	
Private	Local businesses	UA professionals, education, food quality, employment agencies, property development, construction, transportation, circular use of resources, waste management, water- and wastewater management, biodiversity, etc.
	Regional businesses	Ibid
	National businesses with local or regional presence	Ibid
	Entrepreneurs	Innovation, etc.
	Private research centers	Wide range of expertise, organizing activities, etc.
	Realtors	Knowledge on the local housing sector, etc.
	Others	

The theoretical framework and findings identify multidimensional tools within economic development, education, food security, social interaction, leisure activities, health, environment, and urban planning where UA can contribute to social development (Duchemin et al., 2008). How the RCUA can provide multidimensional tools within these areas is discussed below.

Located at Godsen the RCUA can contribute to **economic development** providing workshops, offices, and space to cultivate and offer activities for local businesses. Through sharing of knowledge, the RCUA can secure good administrative and economic management and fair wages as well as contributing to developing sustainable business models. The space can offer repair- and sharing-services, re-used goods and provide access to land and local

quality food at reasonable prices or through cultivation activities. With measures that targets the vulnerable population, access to economic spaces can be secured, and a variety of economic measures can contribute to improved economic conditions for low-income population (Duchemin et al., 2008).

Through **educational** measures in the school garden, courses, workshops etc., participants can work together and learn from each other. Common educational spaces across group affiliations can foster empowerment and increase common knowledge. Knowledge on nutrition, cultivation, conservation, and processing of food, as well as safe food production, can provide access to healthy food, improve nutrition for vulnerable groups and contribute to **food security** and better resilience and preparedness at regional level (Duchemin et al., 2008). Targeted measures like catering services of healthy food at cost price can contribute to prevent food gentrification and provide spaces for social interaction for vulnerable groups and low-income families (Sbicca, 2018).

The findings show that the RCUA can provide spaces for **social interaction** at many levels. In addition to access to educational and economic spaces, the RCUA can contribute to the development of indoor and outdoor spaces for relaxation and **leisure activities** where people of all ages and identities can meet to hang out for free. By providing spaces where people of different socioeconomic status can participate in outdoor activities, the RCUA can offer spaces for physical activities that simultaneously offer access to nature and social interaction, and thus contribute to improves physical and mental **health** (Chen et al., 2023; Duchemin et al., 2008).

The RCUA can offer competence on plant selection and secure pollinator friendly and edible plants as well as knowledge on vegetation and soil used for water management and recycling of wastewater. Through knowledge sharing the RCUA can contribute to increased public awareness and empowerment on environmental issues and provide tools for sustainable development of the **environment** at regional level (Duchemin et al., 2008; Jensen, 2022; Koldingsnes, 2022).

In general, the findings show that the RCUA can contribute to **urban planning** on many levels. Founded on citizen participation based local aspirations and expert recommendations, the main contribution the RCUA can provide to secure social development at regional level, is to secure access for vulnerable groups to areas to be included (World Bank, 2013). Findings show that it is not enough to offer inclusive activities at Godsén. For Godsén and the RCUA to be a natural and accessible center of activity where vulnerable groups feel welcome and included, it is necessary to secure an inclusive neighborhood in Nye

Nybyen and prevent future gentrification and displacement in nearby areas (Cavicchia, 2022; Sbicca, 2019). A check list based on these findings is presented in Table 20.

Table 20 Check list on how to secure UA in an urban development project

#	Action	Check
A	Include UA as a separate topic from the beginning:	<input type="checkbox"/>
A1	Developing the area plan	<input type="checkbox"/>
A2	Developing the regulatory plan	<input type="checkbox"/>
A3	Project documents: planning, implementation, monitoring and evaluation	<input type="checkbox"/>
B	Include an UA specialist/advisor in the project team:	<input type="checkbox"/>
	Phase 1: Conception	<input type="checkbox"/>
	Phase 2: Pre-construction	<input type="checkbox"/>
	Phase 3: Construction	<input type="checkbox"/>
	Phase 4: Performance and monitoring	<input type="checkbox"/>
	Phase 5: Closure	<input type="checkbox"/>
C	Identify relevant stakeholders:	<input type="checkbox"/>
C1	Citizens	<input type="checkbox"/>
C2	NGO's	<input type="checkbox"/>
C3	Public sector	<input type="checkbox"/>
C4	Private sector	<input type="checkbox"/>
D	Use citizen participation to identify desired goals for local development	<input type="checkbox"/>
D1	Overall goals (sustainability, biodiversity, social inclusion, food security, education, etc.)	<input type="checkbox"/>
D2	Specific goals (re-use initiatives, blue-green areas, community kitchen, allotment garden, school garden, etc.)	<input type="checkbox"/>
E	Identify (local) providers to develop and implement initiatives identified through citizen participation	<input type="checkbox"/>
E1	Social	<input type="checkbox"/>
E2	Other	<input type="checkbox"/>
F	Make a priority list (determined by local conditions and policies)	<input type="checkbox"/>
G	Create a timeline for implementation	<input type="checkbox"/>
H	Repeat C-G annually or when relevant (specific initiatives)	<input type="checkbox"/>

Sources: Findings and Indovance (n.d.)

The check list show how UA might be implemented in urban development projects. The list is an example based on the development of Nye Nybyen, where UA has been thought of as a possible tool for social inclusion. Further on the check list is based on findings on how the establishment of a RCUA in an existing building designated for temporary use during the development period, can contribute to social development at regional level in and around Drammen. For urban development projects or RCUA's in other areas a check list may be adapted to local conditions.

The main challenge for the RCUA to provide tools for social development identified during the investigation is funding and transdisciplinary cooperation. The RCUA depends on external funding and transdisciplinary cooperation to be able to provide multidimensional tools for social development at regional level. The RCUA can contribute to building a network of competent partners representing different sectors and arenas, and the center should focus on facilitating transdisciplinary cooperation to achieve sustainable development at local and regional level. The aspects identified during this investigation lead to a RCUA in Drammen that can provide multidimensional tools for social development, but for this to happen the RCUA is dependent on policy development and transdisciplinary cooperation between civil society, private and public sector.

Through the identification of different areas where the RCUA can provide multidimensional tools for social development, and examples on how this can be done, the research conducted for this investigation has answered the main research topic with a proposal on how a RCUA can provide multidimensional tools to achieve social development at regional level.

6.5 Concluding remarks

In Chapter 6 the research questions have been discussed in relation to the theoretical framework and findings of the investigation, and it has been confirmed that the conducted investigation has presented an answer to the main topic and the three sub-research questions. Further on, institutions and organizations identified as recommended partners for a RCUA and a check list to secure UA in an urban development project have been presented.

The findings discussed show that it is necessary for all groups to access spaces, markets and services to be able to participate and be included. This is also valid for Godsen, the RCUA, Nye Nybyen and Godsløkka. When vulnerable groups are secured access, the

RCUA and Godsen can provide tools to secure social development of the neighborhood, surrounding areas and at regional level.

The concluding remarks of the thesis are presented in Chapter 7. Since the fundamental concepts of the research agenda is explored through international, national, regional and local strategies, the concluding remarks will focus on binding the findings of the investigation with concepts of sustainable development presented by these strategies.

7 Concluding remarks

The present investigation on how a RCUA at Godsen can provide multidimensional tools for social development at regional level, parts from the literature review where few articles were found on sustainable development of former railway property in central urban areas (Bertolini et al., 2012; Ribalaygua et al., 2020). Further on no articles were found on how a RCUA can provide multidimensional tools for social development at regional level. However, several articles were found on possible multifunctionality of UA (Duchemin et al., 2008; Langemeyer et al., 2021).

The investigation has studied a small example of how a former railway freight terminal of heritage value, Godsen, can contribute to social development in a new urban neighborhood developed on a former closed off railway property, Godsløkka in Nye Nybyen, and how a RCUA located at this temporary space can contribute to provide multidimensional tools for social development at regional level in and around Drammen. The investigation has used an inter- and transdisciplinary approach (Chapter 1) which is reflected in the theoretical framework where a combination of concepts from several disciplines forms the foundation for the research agenda (Chapter 2). This is also reflected with a mixed methods approach (Chapter 3).

Selected disciplines for the theoretical framework are introduced with an establishment of related SDGs and how identified SDGs are implemented in national, regional, and municipal strategies. The investigation has shown that local, regional and national authorities in Norway have implemented the SDGs in their strategies and plans (Drammen Municipality, 2021c; Norwegian Ministries, 2021; Viken County Municipality, 2023).

7.1 The RCUA as a tool to achieve SDGs

The present investigation concludes that transdisciplinary cooperation and policy development is necessary for the RCUA to provide multidimensional tools for regional social development. The identified need of transdisciplinary cooperation and policy development concurs with systemic issues of SDG 17 that “Enhance policy coherence for sustainable development” (United Nations, 2015, p. 27/35) (SDG 17.14) and encourages “...multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources...” (United Nations, 2015, p. 27/35) (SDG 17.16) and “...promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships” (United Nations, 2015, p. 27/35) (SDG 17.17). Several

barriers correlating to achieving transdisciplinary cooperation have been identified. In the case of the RCUA in Drammen, findings show a lack of a clear political mandates to implement UA initiatives and the national UA strategy is yet to be implemented into policies and plans (I07). Further on, the willingness to pay for UA activities is low which reduces the capacity to coordinate interdisciplinary, intersectoral and transdisciplinary cooperation (I05). However, if receiving proper funding, the RCUA can be considered able to possess the competence required to facilitate such cooperation.

In addition to the need of transdisciplinary cooperation and policy development, the findings show that local aspirations and expert recommendations agrees that it is important to secure green, safe and accessible spaces, and for people of different identities and socioeconomic status to live in the neighborhood for the neighborhood to be inclusive. Inclusive housing options and third housing sector concepts have been recommended. These findings are supported by a recent white paper (August 2023) on how the Norwegian Government want to secure the development of sustainable urban neighborhoods with minor differences (Meld. St. 28, 2022-2023), and correspond to SDG 11 “Make cities and human settlements inclusive, safe, resilient and sustainable” (United Nations, 2015, p. 21/35). The RCUA can facilitate transdisciplinary cooperation to develop neighborhoods that are safe, affordable and accessible, with adopted public transportation according to needs identified through citizen participation (SDG 11.1; 11.2; 11.3). Through the development of Smithestrøm Park, the square in front of Godsen and other green spaces in Nye Nybyen and the Drammen region, the RCUA and network members can contribute to develop green public spaces that are accessible, inclusive and safe for people with all identities and life situations (11.7). The findings show that national and local aspirations agree that inclusive housing should be offered (Drammen Municipality, 2019, 2021c; Meld. St. 28, 2022-2023). However, the gap between envisioned plans for Nye Nybyen and the aspirations of citizen participation and expert recommendations, shows a lack of implementation of municipal goals in area plans (I03; I08; I09; I13). Where NSHB offers solutions to secure inclusive housing, the institution is not invited to participate in the development of the area plan (I08; I09). This lack of intersectoral coordination is seen as a barrier to achieve inclusive housing in Drammen. This barrier is considered to be applicable to other municipalities and areas.

The white paper on development of sustainable urban neighborhoods identifies eight SDGs (1; 3; 4; 8; 10; 11; 16; 17) as especially relevant when developing good and inclusive urban areas (Meld. St. 28, 2022-2023, p. 12). The present investigation has identified several areas where the RCUA can contribute towards the SDGs. With targeted measures towards the

vulnerable population poverty can be reduced (SDG 1.2), access to markets and services reached (SDG 1.3) and resilience built (SDG 1.5). Through promotion of sustainable urban agriculture, local cultivation, knowledge-sharing and empowerment, the RCUA can contribute to achieve food security (SDG 2) through access to safe and nutritious food, prevent malnutrition (SDG 2.1; 2.2) and contribute to higher productivity and income for small scale urban farmers and ensure sustainable systems for food production through access to land and services, development of sustainable business models, guidance on good management and resilient agricultural practices (SDG 2.3; 2.4) (United Nations, 2015). Although the investigation has found common aspirations to assure local cultivation and food security, findings show little political and administrative willingness to secure co-existence of UA cultivation and an annual world cup event. The investigation has shown that different departments within the municipality do not know decisions made by another municipal department (Drammen Municipality, 2021a; I04; I05; I06; I07). The lack of secured access to land for cultivation and support to cultivate in urban areas are considered to increase the financial risk, reduce the possibility to develop sustainable UA businesses and secure resilient UA practices, and are considered as important barriers to develop UA in Drammen. Poor information flow and different priorities between municipal departments are considered to be barriers for UA initiatives in many municipalities.

Through educational activities the RCUA can contribute with inclusive education and learning opportunities for all (SDG 4) and promote apprenticeships and inclusive employment, as well as providing knowledge on sustainable development in a safe, non-violent and inclusive environment (SDG 4.4; 4.7; 4.a). Through cooperation with local organizations, the RCUA can enable access to spaces, markets, and services for empowerment of women and work towards equal opportunities for leadership and decision-making (SDG 5.5; 5.b). Although social policies support inclusive employment (Drammen Municipality, 2021c) and local businesses are interested to participate in inclusive employment programs (I05), findings show that it is difficult for employers to access information from the municipality and to know which department to contact. Further on, short-term contracts and funding give little predictability for both employees and employers and makes it harder for employers to choose to participate in inclusive employment initiatives (I05; I10; I11). These barriers are considered to be valid for many municipalities.

Competent partners of the RCUA network can provide knowledge on recycling and safe use of wastewater, secure water-use efficiency, integrate water use management, protect water-related ecosystems and provide knowledge on alternative water and sanitation

management (SDG 6.3; 6.4; 6.5; 6.6). RCUA partners can provide knowledge and solutions on sustainable and affordable energy solutions (SDG 7; 7.b) and contribute to increased use of renewable energy (SDG 7.2) (United Nations, 2015). Findings show a tendency to skepticism towards new solutions in Drammen (I03; I05). As a consequence of this, lack of knowledge about different solutions among developers, buyers and other relevant actors, can create a fear of testing out different innovative environmentally friendly alternatives, due to the worry of increased costs or that it will be met negatively by the market.

Suggested inclusive employment initiatives, apprenticeships, fair wages, knowledge-sharing, guidance, policy development etc. can make the RCUA an important resource to increase economic productivity (SDG 8.2; 8.5; 8.6), promote development-oriented policies and access to financial markets, supporting productive activities, entrepreneurship, creation of decent jobs and support the development of local businesses (SDG 8.3; 8.8; 8.9). Further on the RCUA can contribute to improve resource efficiency offering repair workshops, re-used goods, etc. (8.4). Education, inclusive employment and local business support provided by the RCUA and network partners can contribute to income growth of low-income population (SDG 10.1). Recommended inclusive activities offered at Godsen or by the RCUA can ensure opportunity, reduce inequalities and contribute to empowerment and promotion of social, political and economic inclusion across identities and life situations (SDG 10.2; 10.3). Establishment of a general code of conduct for UA initiatives and social activities and guidance on a functioning system to prevent harassment and secure a safe environment for all, as well as input to policy development, can contribute to increased equality (SDG 10.3; 10.4) (United Nations, 2015). Findings show a tendency to shift the responsibility onto others without following up that partners have implemented measures against harassment (Municipal UA advisor, personal communication, 26th June 2023). The absence of responsibility can be a barrier to ensuring good inclusive spaces and activities.

The RCUA and network members can be important participants and resources to develop policies and plans to secure inclusion, resource efficiency, resilience to disasters, mitigation and adaptation to climate change and integrate biodiversity and ecosystems in local and regional development and planning processes (SDG 11.b; 13.1; 13.2; 15.9). Expert partners of the RCUA network can provide knowledge to improve environmental conditions in urban areas (SDG 11.6) and support social, environmental and economic links between urban, peri-urban and rural areas (SDG 11.a). With a network of experienced partners and scientific research institutions, the RCUA can facilitate transdisciplinary cooperation to develop sustainable and resilient infrastructure, increase resource-use efficiency and boost

innovation and research (SDG 9.1; 9.4; 9.5). Offering guidance and a network for cooperation and knowledge-sharing, the RCUA can contribute for local businesses to access external funding and investments, develop marketing strategies and sell their products (SDG 9.3) (United Nations, 2015).

Educational activities at and around Godsen can contribute to reduce food waste and losses through local production that reduce transportation needs and courses on conservation, proper storage of food products etc. and provide updated information on sustainable options (SDG 12.3; 12.8). The RCUA can contribute to increased awareness on climate-change and environmental issues to improve responses and prevent the release of toxins to soil, water and air (SDG 12.4; 13.3), and provide space for used goods at Godsen to encourage re-use and recycling (SDG 12.5) (United Nations, 2015). An identified barrier to increase awareness is to succeed in reaching out to population groups of different identities and achieve participation from representatives of a large variety of identities and life situations.

A combination of multiple and multidimensional tools provided by different UA initiatives, and the influence RCUA network members can have on the development of local and regional development, may lead to a RCUA that can contribute to a peaceful and inclusive society for sustainable development at local and regional level (SDG 16) (United Nations, 2015).

7.2 Future studies

During the investigation several areas of future studies have been identified. Selected topics are based on a transdisciplinary approach to issues related to the main key words of the investigation: Urban agriculture, urban development, social inclusion, food security, governance and stakeholder analysis.

Urban agriculture and green gentrification. Studies have shown that the development of former closed off areas or implementation of UA in neighborhoods, although based on principles of inclusion and SDGs, may lead to an increase in housing pressure and exclusionary gentrification (Cavicchia, 2022; Sbicca, 2019). Considering the possible neglect of gentrification in areas surrounding Nye Nybyen, exclusionary displacement is relevant as a follow-up on gentrification during and post construction. Additionally, exclusionary displacement of areas surrounding urban development projects that includes UA initiatives would be interesting, both as single case studies and comparative studies.

Social inclusion in urban development in policies and plans. This investigation has identified a need to implement social inclusive measures into local policies and plans. Considering the recent white paper on sustainable and inclusive neighborhoods (Meld. St. 28, 2022-2023) that calls for specific measures at municipal level to secure inclusive housing and activities, studies on how local authorities implement measures to secure social inclusion in area and zoning plans could enlighten the reality at local level.

Social inclusion in UA initiatives that secure equal access to local quality food. When considering cultivation activities as a tool for food security and social inclusion, and the possible neglect of potential harassment towards vulnerable groups identified during this investigation, studies on how UA initiatives that targets vulnerable groups prevent harassment and ensure that everyone can participate in a safe, inclusive and respectful environment, and obtain equal opportunities to access local quality food, could enlighten the present situation and identify actions of policy development.

Transdisciplinary cooperation among network members of a RCUA. This investigation has established the need for transdisciplinary cooperation between actors for a RCUA to function according to local aspirations for sustainable development. A future study on cooperation among actors could enlighten the benefits and challenges of such cooperation.

Finally, further studies on **how sustainable and social inclusive measures are considered when developing former railway property located in central urban areas of Norway or around Europe**, could spot light issues regarding sustainable development of high value property and formerly closed off areas in many countries.

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Appendix

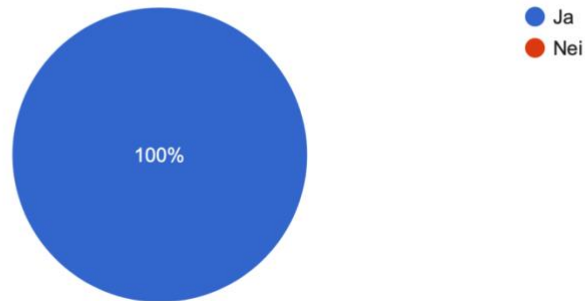
Attachment 1: Abbreviations

BNE	Bane NOR Eiendom
CPI	Consumer Price Index
DM	Drammen Municipality
DSB	Norwegian Directorate for Civil Protection
EGH	Evas Grønne Hage
FAO	The Food and Agriculture Organization of the United Nations
FAU	The Parents' Council's working committee
IMF	International Monetary Fund
NAV	Norwegian Labour and Welfare Administration
n.d.	No date
NGO	Non-Governmental Organization
NIBR	Norwegian Institute for Urban and Regional Research
NIKU	Norwegian Institute for Cultural Heritage Research
NMBU	Norwegian University of Life Sciences
NOK	Norwegian crown (currency)
NSHB	Norwegian State Housing Bank
PRISMA	Preferred Reporting Items for Systematic reviews and Meta-Analyses
RCUA	Resource Center for Urban Agriculture
RQ1	Sub-research question 1
RQ2	Sub-research question 2
RQ3	Sub-research question 3
SDG	UN Sustainable Development Goal
SSB	Statistics Norway
UD	Urban development
UPA	Urban and peri-urban agriculture
UA	Urban agriculture
UN	United Nations
USN	University of South-Eastern Norway

Attachment 2: Questionnaire with results

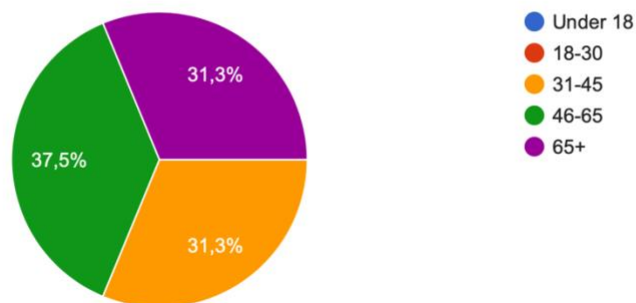
Jeg samtykker til at informasjonen fra undersøkelsen brukes og lagres til videre arbeid.

16 svar



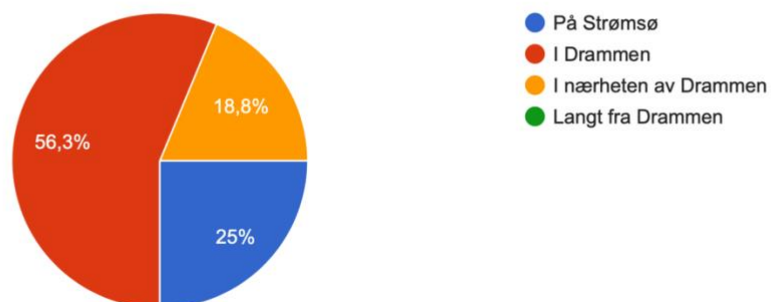
Hvor gammel er du?

16 svar



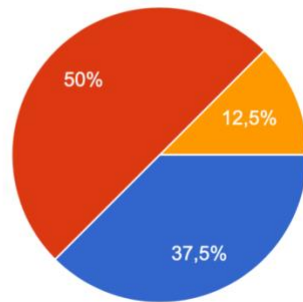
Hvor bor du?

16 svar



Hvor kommer du fra?

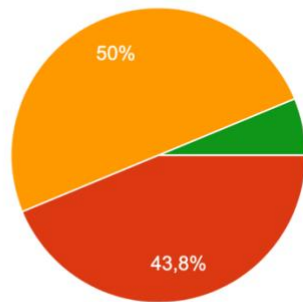
16 svar



- Drammen og omegn
- Norge (ikke Drammen og omegn)
- Utlandet

Hva gjør du? (Din hovedaktivitet)

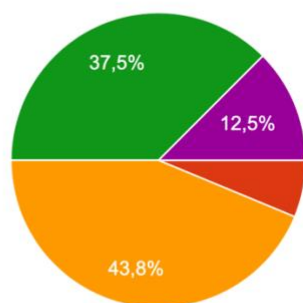
16 svar



- Går på skole / universitet
- Jobber
- Annet
- Ønsker ikke å svare

Hva er din årsinntekt

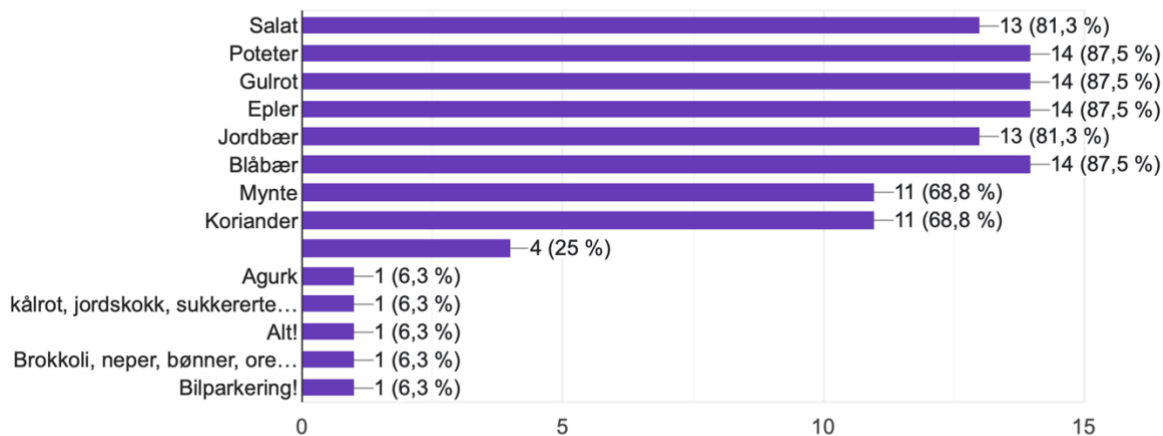
16 svar



- Under 200 000 kr
- 200 000 - 400 000 kr
- 400 000 - 600 000 kr
- Over 600 000 kr
- Ønsker ikke å svare

Hvilke grønnsaker, frukt, bær og urter liker du?

16 svar



Hvilke grønnsaker, frukt, bær og urter liker du?

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Agurk

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander

Poteter, Epler, Blåbær, Koriander, kålrot, jordskokk, sukkererter, blomkål, squash, solbær, persille, bønner,...

Salat, Gulrot, Epler, Jordbær, Blåbær, Koriander

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander,

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander,

Salat, Poteter, Gulrot, Mynte

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander, Alt!

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander, Brokkoli, neper, bønner, oregano, timian.

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander

Bilparkering!

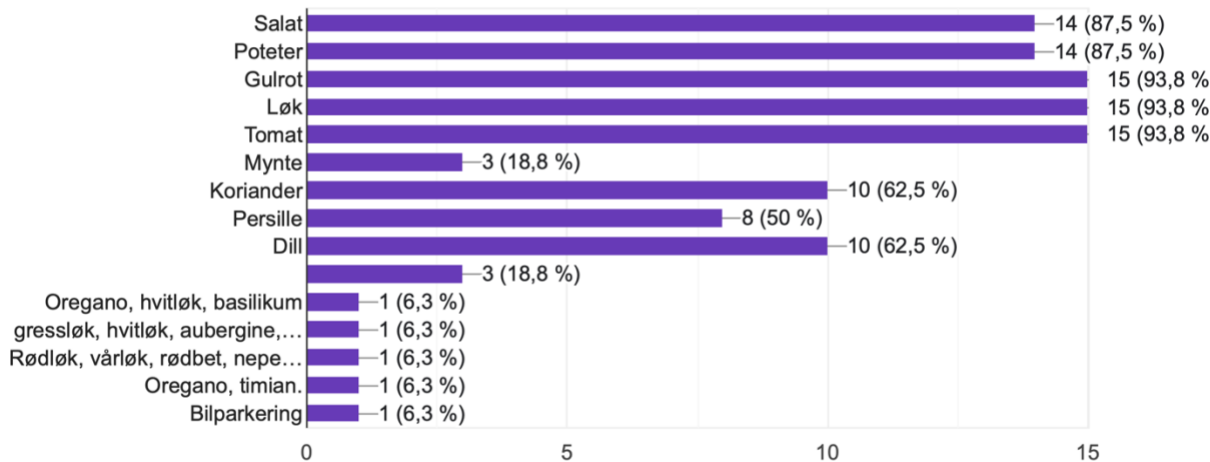
Poteter, Gulrot, Epler, Jordbær, Blåbær,

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær

Salat, Poteter, Gulrot, Epler, Jordbær, Blåbær, Mynte, Koriander,

Hvilke grønnsaker og urter bruker du når du lager mat?

16 svar



Hvilke grønnsaker og urter bruker du når du lager mat?

Salat, Poteter, Gulrot, Løk, Tomat, Mynte, Koriander, Persille, Dill

Salat, Poteter, Gulrot, Løk, Tomat

Salat, Poteter, Gulrot, Løk, Tomat, Koriander, Oregano, hvitløk, basilikum

Salat, Poteter, Gulrot, Løk, Tomat, Koriander, Dill

Salat, Poteter, Gulrot, Løk, Tomat, Koriander, Persille, Dill, gressløk, hvitløk, aubergine, kålrot, blomkål, grønnkål, squash, estragon, rødbete, neper, ...

Salat, Gulrot, Løk, Tomat, Koriander, Dill

Salat, Poteter, Gulrot, Løk, Tomat, Mynte, Koriander, Persille, Dill,

Salat, Poteter, Gulrot, Løk, Tomat, Koriander, Persille, Dill,

Salat, Poteter, Gulrot, Løk, Tomat, Persille, Dill

Salat, Poteter, Gulrot, Løk, Tomat, Mynte, Koriander, Persille, Dill, Rødløk, vårløk, rødbet, nepe, kålrot, fennikkel, squash, agurk, paprika, chili, asparges, gressløk, brokkoli, blomkål, purre, oregano, basilikum, mais, reddik, kål, sukkererter, avocado, aubergine...

Salat, Poteter, Gulrot, Løk, Tomat, Dill, Oregano, timian.

Salat, Poteter, Gulrot, Løk, Tomat, Koriander, Persille, Dill

Bilparkering

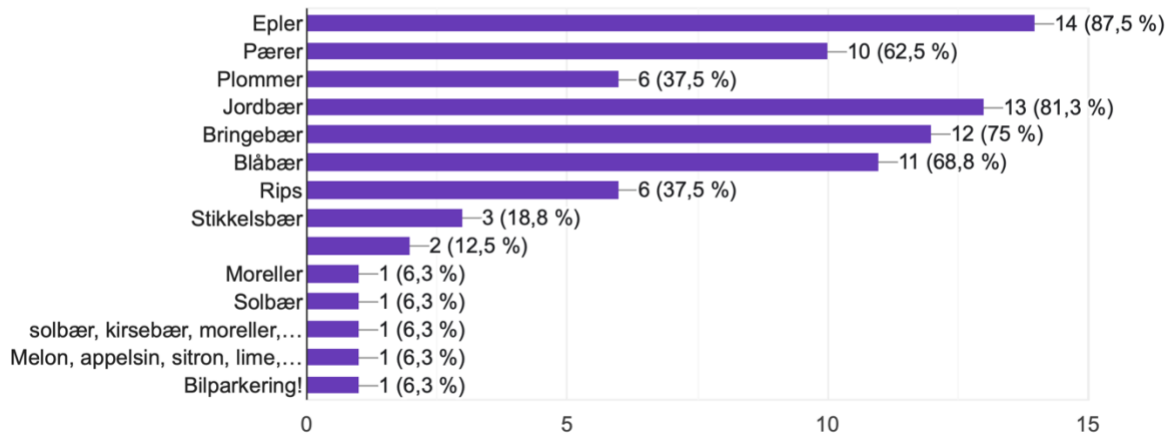
Poteter, Gulrot, Løk, Tomat,

Salat, Poteter, Gulrot, Løk, Tomat

Salat, Poteter, Gulrot, Løk, Tomat, Koriander, Persille

Hvilke frukt og bær pleier du å spise?

16 svar



Hvilke frukt og bær pleier du å spise?

Epler, Pærer, Jordbær, Bringebær, Blåbær

Epler, Pærer, Plommer, Jordbær, Bringebær, Blåbær, Rips, Stikkelsbær, Moreller

Pærer, Jordbær, Blåbær

Epler, Jordbær, Solbær

Epler, Pærer, Plommer, Jordbær, Bringebær, Blåbær, Rips, Stikkelsbær, solbær, kirsebær, moreller, melon,...

Epler, Plommer, Bringebær, Blåbær

Epler, Pærer, Jordbær, Bringebær, Blåbær

Epler, Jordbær, Bringebær, Blåbær,

Epler, Jordbær, Bringebær, Rips

Epler, Plommer, Jordbær, Bringebær, Blåbær, Rips, Melon, appelsin, sitron, lime, banan, moreller, nektarin, klementin

Epler, Pærer

Epler, Pærer, Plommer, Jordbær, Bringebær, Blåbær, Rips, Stikkelsbær

Bilparkering!

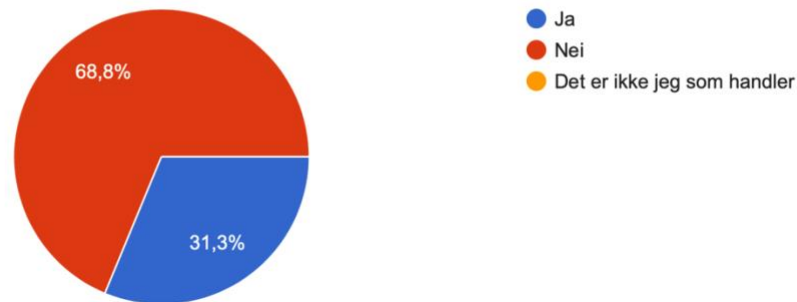
Epler, Pærer, Jordbær, Bringebær, Blåbær,

Epler, Pærer, Plommer, Jordbær, Bringebær, Blåbær, Rips

Epler, Pærer, Jordbær, Bringebær

Er det noen grønnsaker eller frukt du liker men ikke kjøper fordi det er for dyrt?

16 svar



Hvis ja, hvilke grønnsaker eller frukt er for dyre?

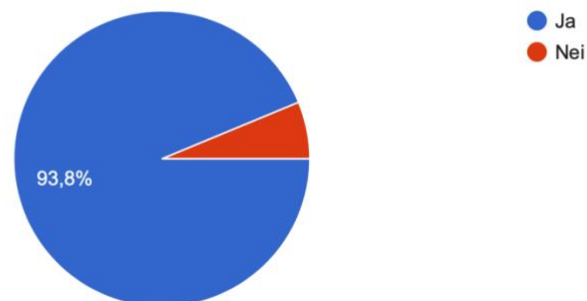
Bær.

ikkenødvendivus for dyrt, men for langveisfra - eks avokado, kiwi
jordbær, stikkelsbær, moreller, (rips og solbær også - men de dyrker jeg selv. Og blåbær - så jeg plukker litt i skogen når helsa holder til det)

Moreller

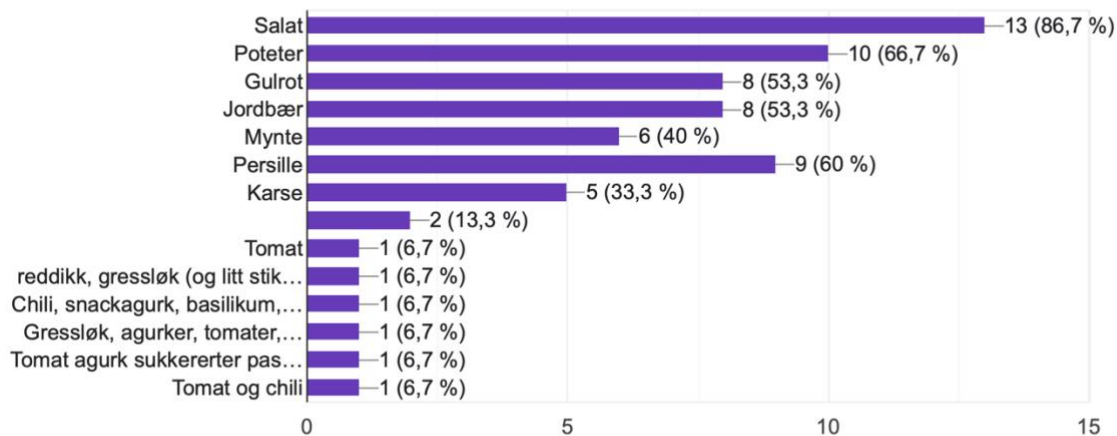
Har du erfaring med å dyrke grønnsaker eller andre spiselige vekster?

16 svar



Hva har du dyrket? (Flere avkryssninger mulig)

15 svar



Hva har du dyrket?

(Flere avkryssninger mulig)

Salat, Mynte, Persille, Karse

Salat, Poteter, Gulrot, Jordbær, Mynte

Salat, Poteter, Gulrot, Jordbær

Salat, Tomat

Salat, Poteter, Jordbær, Persille, reddikk, gressløk (og litt stikkelsbær, rips og solbær)

Salat, Poteter, Gulrot, Jordbær, Mynte, Persille, Karse

Salat, Poteter, Persille

Salat, Poteter, Gulrot, Mynte, Persille,

Salat, Poteter, Gulrot, Persille

Salat, Poteter, Gulrot, Jordbær, Mynte, Persille, Karse, Chili, snackagurk, basilikum, gressløk, koriander, tomat, søtpaprika

Jordbær, Mynte, Gressløk, agurker, tomater, meloner, bønner.

Salat, Poteter, Gulrot, Jordbær, Persille, Karse, Tomat agurk sukkererter pastinakk rosenkål vårløk

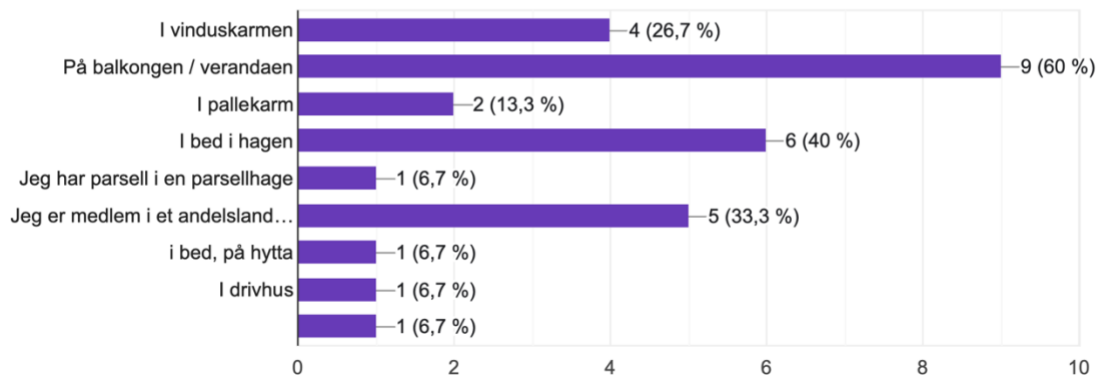
Salat

Salat, Poteter, Gulrot, Jordbær, Persille, Karse,

Tomat og chili

Hvordan dyrker du? (Flere avkryssninger mulig)

15 svar



Hvordan dyrker du?

(Flere avkryssninger mulig)

I vinduskarmen, På balkongen / verandaen

I bed i hagen

I vinduskarmen, På balkongen / verandaen, Jeg er medlem i et andelslandbruk

På balkongen / verandaen

I bed i hagen, i bed, på hytta

Jeg er medlem i et andelslandbruk

I pallekarm

På balkongen / verandaen, Jeg er medlem i et andelslandbruk

I vinduskarmen, På balkongen / verandaen, I bed i hagen, Jeg har parsell i en parsellhage

I vinduskarmen, På balkongen / verandaen, Jeg er medlem i et andelslandbruk

På balkongen / verandaen, Jeg er medlem i et andelslandbruk

I bed i hagen, I drivhus

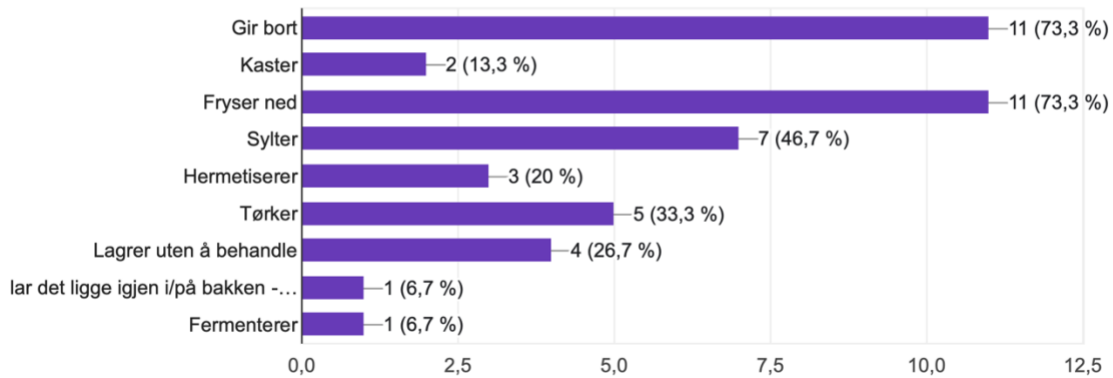
I bed i hagen

På balkongen / verandaen, I pallekarm, I bed i hagen,

På balkongen / verandaen

Hva gjør du med overskuddet av det du produserer? (Flere avkryssninger mulig)

15 svar



Hva gjør du med overskuddet av det du produserer?

(Flere avkryssninger mulig)

Gir bort, Fryser ned, Sylter

Gir bort, Fryser ned, Sylter, Hermetiserer, Tørker

Gir bort

Lagrer uten å behandle

Gir bort, Kaster, Fryser ned, Iar det ligge igjen i/på bakken - til fugler, rådyr eller annet

Gir bort, Fryser ned, Fermenterer

Fryser ned, Sylter, Tørker, Lagrer uten å behandle

Gir bort, Fryser ned, Tørker

Gir bort, Fryser ned, Sylter, Hermetiserer

Gir bort, Fryser ned

Fryser ned

Gir bort, Fryser ned, Sylter, Tørker, Lagrer uten å behandle

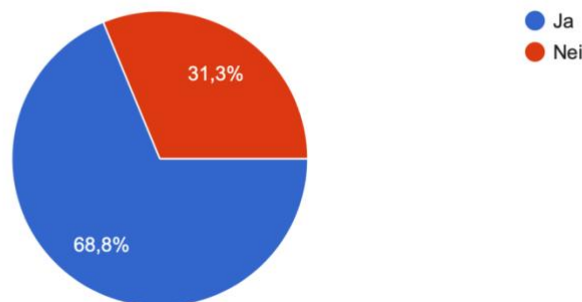
Kaster

Gir bort, Fryser ned, Sylter, Lagrer uten å behandle

Gir bort, Sylter, Hermetiserer, Tørker

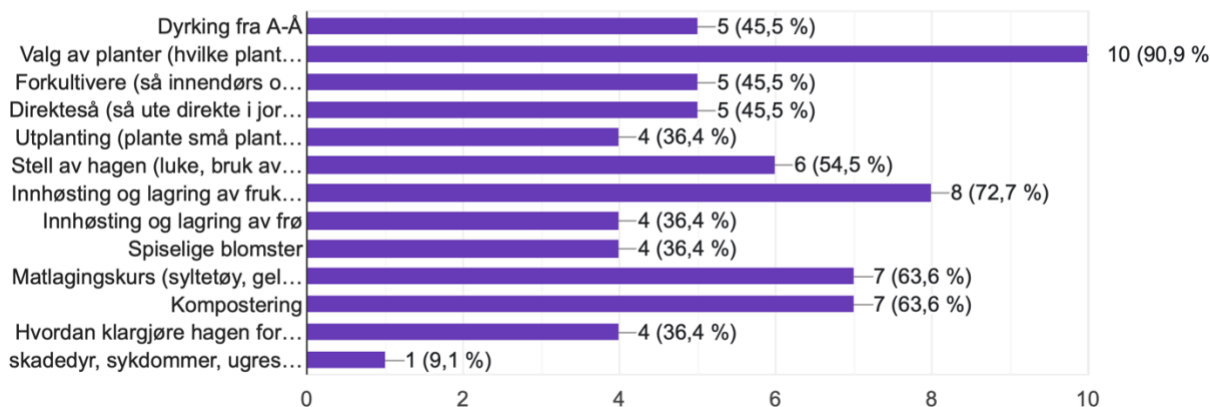
Har du lyst til å lære mer om dyrking og hva det du dyrker kan brukes til?

16 svar



Hvis ja, hva har du lyst til å lære mer om? (Flere avkryssninger mulig)

11 svar



Hvis ja, hva har du lyst til å lære mer om?

(Flere avkryssninger mulig)

Dyrking fra A-Å, Valg av planter (hvilke planter passer for deg der du dyrker), Forkultivere (så innendørs om vinteren og våren), Matlagingskurs (syltetøy, gelé, fermentering, te, urtesalt o.a.)

Valg av planter (hvilke planter passer for deg der du dyrker), Innhøsting og lagring av frukt og grønt, Kompostering

Dyrking fra A-Å, Valg av planter (hvilke planter passer for deg der du dyrker), Forkultivere (så innendørs om vinteren og våren), Direkteså (så ute direkte i jorda), Utplanting (plante små planter i jorda ute), Stell av hagen (luke, bruk av redskaper, gjødsel, jordforberedning o.a.), Innhøsting og lagring av frukt og grønt, Matlagingskurs (syltetøy, gelé, fermentering, te, urtesalt o.a.), Kompostering

Dyrking fra A-Å, Valg av planter (hvilke planter passer for deg der du dyrker), Forkultivere (så innendørs om vinteren og våren), Direkteså (så ute direkte i jorda), Utplanting (plante små planter i jorda ute), Stell av hagen (luke, bruk av redskaper, gjødsel, jordforberedning o.a.), Innhøsting og lagring av frukt og grønt, Innhøsting og lagring av frø, Spiselige blomster, Kompostering, Hvordan klargjøre hagen for vinteren

Valg av planter (hvilke planter passer for deg der du dyrker), Direkteså (så ute direkte i jorda), Stell av hagen (luke, bruk av redskaper, gjødsel, jordforberedning o.a.), Innhøsting og lagring av frukt og grønt, skadedyr, sykdommer, ugress, andre skadegjørere

Hvis ja, hva har du lyst til å lære mer om?

(Flere avkryssninger mulig)

Dyrking fra A-Å, Valg av planter (hvilke planter passer for deg der du dyrker), Forkultivere (så innendørs om vinteren og våren), Direkteså (så ute direkte i jorda), Utplanting (plante små planter i jorda ute), Stell av hagen (luke, bruk av redskaper, gjødsel, jordforbereding o.a.), Innhøsting og lagring av frukt og grønt, Innhøsting og lagring av frø, Spiselige blomster, Matlagingskurs (syltetøy, gelé, fermentering, te, urtesalt o.a.), Kompostering, Hvordan klargjøre hagen for vinteren

Valg av planter (hvilke planter passer for deg der du dyrker), Kompostering

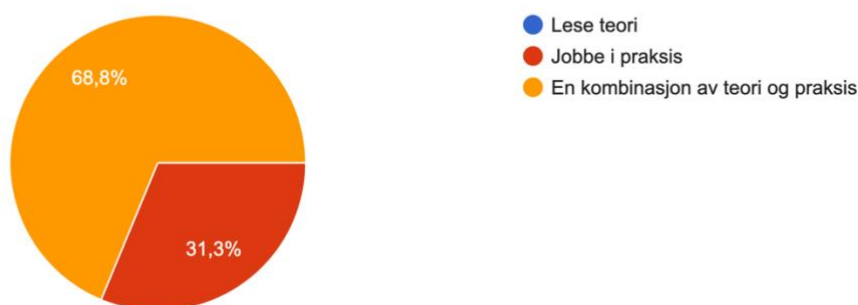
Dyrking fra A-Å, Valg av planter (hvilke planter passer for deg der du dyrker), Forkultivere (så innendørs om vinteren og våren), Direkteså (så ute direkte i jorda), Utplanting (plante små planter i jorda ute), Stell av hagen (luke, bruk av redskaper, gjødsel, jordforbereding o.a.), Innhøsting og lagring av frukt og grønt, Innhøsting og lagring av frø, Spiselige blomster, Matlagingskurs (syltetøy, gelé, fermentering, te, urtesalt o.a.), Hvordan klargjøre hagen for vinteren

Valg av planter (hvilke planter passer for deg der du dyrker), Innhøsting og lagring av frukt og grønt, Matlagingskurs (syltetøy, gelé, fermentering, te, urtesalt o.a.), Kompostering

Matlagingskurs (syltetøy, gelé, fermentering, te, urtesalt o.a.)

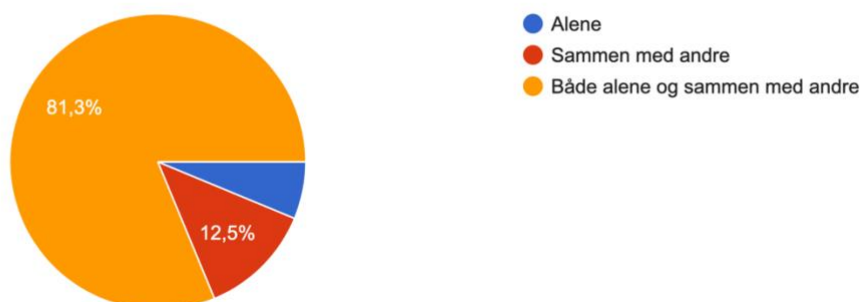
Hvordan lærer du best?

16 svar



Liker du å jobbe alene eller sammen med andre?

16 svar



Hva skal til for at du har lyst til å komme til og bruke Godsen?

Samhold, tilhørighet, åpenhet

Interessante kurs

Tid, strekker ofte ikke til i hverdagen. Når ungene er litt større og kan være med er det mer aktuelt igjen

Åpent om kvelden og/eller helger.

Jeg er litt betenkt når det gjelder forurensningsnivåer midt i et sterkt trafikkert område og gammelt industristrøk i sentrum av byen.

Ha bedre tid!

tid

Lett tilgang til å vite hva som skjer og når, at det skjer ting der jeg er interessert i, bra stemning

At det er vel organiserte arrangementer

Tidspunkt, informasjon, enkelte fagtemaer

Bør forbli parkering

Uaktuelt

Hvordan kan dyrking brukes til å inkludere alle?

Skape noe på tvers av generasjon og bakgrunn. Nettverksbygging.

Dyrke sammen for de som ikke har hagen. Samdyrkningslag

Mange vil ikke uansett. Gjøre tilbudet kjent og la de som vil komme.

En interesse som går på tvers av mange andre grenser - alder, bakgrunn, kunnskapsnivåer. Men jeg merker meg at det er aller mest kvinner, og få menn som er interessert (jeg synes det er helt ok, jeg da, jeg er kvinne sjøl og trives i fellesskapet)

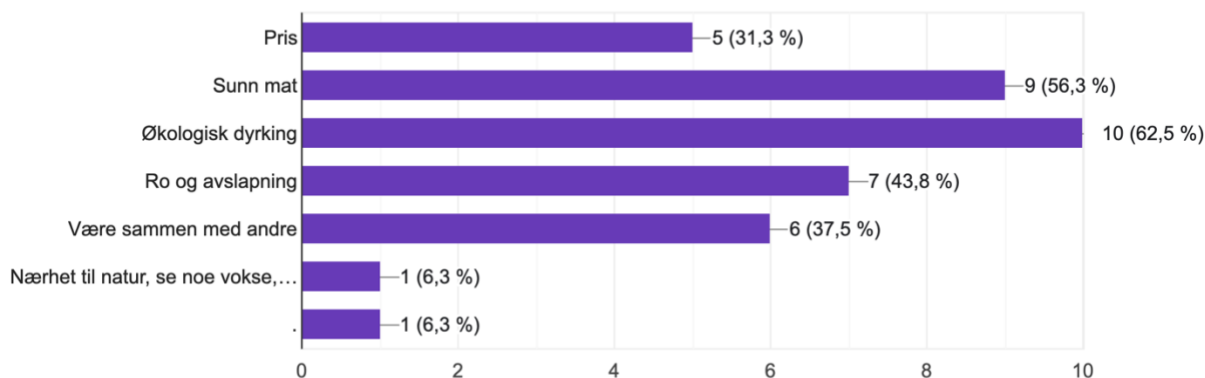
invitere til godt sosialt miljø

Være tilgjengelig som et møtepunkt, info på ulike språk og kanaler, tilrettelegging feks pallekarmer for folk i rullestol

Informasjon på flere språk enn norsk. Ha vekster som inkluderer bredt i forhold til kultur og alder.

Er det noe annet som er viktig for deg hvis du skal dyrke mat? (Flere avkryssninger mulig)

16 svar



Er det noe annet som er viktig for deg hvis du skal dyrke mat?

(Flere avkryssninger mulig)

Pris, Sunn mat, Økologisk dyrking

Ro og avslapning

Sunn mat, Økologisk dyrking

Sunn mat, Økologisk dyrking, Ro og avslapning

Økologisk dyrking, Ro og avslapning, Være sammen med andre

Sunn mat, Økologisk dyrking, Være sammen med andre

Sunn mat, Økologisk dyrking, Ro og avslapning, Være sammen med andre

Økologisk dyrking, Være sammen med andre

Sunn mat

Pris, Sunn mat, Ro og avslapning, Være sammen med andre, Nærhet til natur, se noe vokse, mestring, tid, fysisk aktivitet

Pris, Sunn mat, Økologisk dyrking, Ro og avslapning

Økologisk dyrking, Være sammen med andre

Pris

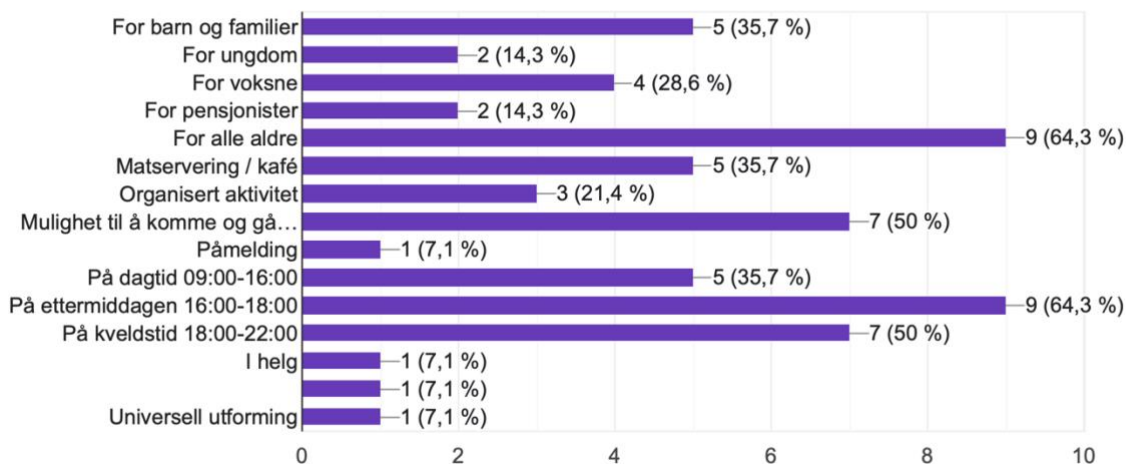
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Pris, Sunn mat

Økologisk dyrking, Ro og avslapning

Hvordan bør kurs og aktiviteter på Godsens være for at du skal ha lyst og mulighet til å delta? (Flere avkryssninger mulig)

14 svar



Hvordan bør kurs og aktiviteter på Godsen være for at du skal ha lyst og mulighet til å delta?**(Flere avkryssninger mulig)**

For barn og familier, For voksne, Matsservering / kafé, Påmelding, På dagtid 09:00-16:00, På kveldstid 18:00-22:00

For alle aldre, Matsservering / kafé, Mulighet til å komme og gå uten avtale, På ettermiddagen 16:00-18:00, På kveldstid 18:00-22:00

For barn og familier, På ettermiddagen 16:00-18:00, På kveldstid 18:00-22:00, I helg

For alle aldre, Mulighet til å komme og gå uten avtale, På ettermiddagen 16:00-18:00, På kveldstid 18:00-22:00

For alle aldre, Organisert aktivitet, Mulighet til å komme og gå uten avtale, På dagtid 09:00-16:00, På ettermiddagen 16:00-18:00

For alle aldre, Mulighet til å komme og gå uten avtale, På ettermiddagen 16:00-18:00, På kveldstid 18:00-22:00

For pensjonister, For alle aldre, Matsservering / kafé, På dagtid 09:00-16:00

For barn og familier, For alle aldre, På ettermiddagen 16:00-18:00

For voksne, For alle aldre, Matsservering / kafé, Organisert aktivitet, Mulighet til å komme og gå uten avtale, På ettermiddagen 16:00-18:00, På kveldstid 18:00-22:00

For barn og familier, For ungdom, For voksne, For pensjonister, For alle aldre, Matsservering / kafé, Organisert aktivitet, Mulighet til å komme og gå uten avtale, På dagtid 09:00-16:00, På ettermiddagen 16:00-18:00,

For alle aldre, På dagtid 09:00-16:00

Universell utforming

For barn og familier, For ungdom, For voksne, Mulighet til å komme og gå uten avtale, På kveldstid 18:00-22:00

På ettermiddagen 16:00-18:00

Er det noe annet du har lyst til å legge til?

Behold området som bilparkering

Nei

Tenker det er en god idé å ha egne kurs innimellom rettet spesielt mot ungdom, med fokus på grønnsaker mm. som er ingredienser i matretter som de liker.

Påmelding kan være greit innimellom, men burde ikke være bare det.

Attachment 3: Poster promoting the questionnaire

Godsens grønne hage - En spørreundersøkelse

Har du lyst til å bidra til utviklingen av grønne aktiviteter og dyrkingsområdene på og rundt Godsen?

Da kan du svare på spørreundersøkelsen ved å bruke QR-koden eller lenken nedenfor:

Dyrking av egen mat:



QR-kode:



Lenke til spørreundersøkelsen:

<https://docs.google.com/forms/d/e/1FAIpQLSf2ljSM-QQih0Gm1SavDRDFTsWn5m68ygWPHRVFgYJBZA8eYA/viewform>

Spørreundersøkelsen gjennomføres av Maria Trettvik, masterstudent i urbant landbruk ved NMBU på Ås, i samarbeid med Evas Grønne Hage.

Attachment 4: Main activities during field work

Date	Time	Event/Topic	Reason
FEB 25 2022	3 h	Sightseeing at Godsen, Nybyen, Smithestrøm Farm	Getting to know the area.
MAY 20 2022	5 h	Open day at Godsen	Meet and greet. CEO at EGH, BNE project team, project partners, neighbors, representatives from local authorities.
JUL 01 2022	1 h	Phone meeting with project director BNE	Identify possibility of cooperation, get an introduction to the story of Godsen and Godsløkka, BNE ideas, visions and goals.
AUG 11 2022	1 h	Meeting with project director BNE	Sharing of information. Introduction to the development project by BNE and sharing a list of possible people, organizations and other stakeholders of interest.
AUG 11 2022	2 h	Meeting with CEO EGH Tour of cooperative garden “Kirkeparken”	Discuss and clarify roles and possibility of an internship at EGH and get to know one UA project in the city center of Drammen.
SEPT 16 2022	2 h	Information meeting in Drammen - external partners	Attend meeting. Observe and participate. Meet external partners.
SEPT 2022 - JUL 2023	Aprox. 80	Frequent meetings, 3-5/month, between CEO at EGH and student	Participating in discussions and planning and evaluation of UA activities in Drammen. Internal insight in the development of the RCUA, Godsen and other UA related topics and activities in and around Drammen.

Date	Time	Event/Topic	Reason
SEPT 2022 - JUN 2023	Aprox. 20	Frequent project meetings, 2-3/month, BNE, EGH and student (as intern at EGH)	Following project updates, planning etc.
OCT 03 2022	5,5	Workshop at EGH	Identification of current and future UA activities and projects in Drammen
OCT 10 2022	1,5	Meeting with Lindum	RCUA roles and cooperation
OCT 20 2022	2	Meeting with Vestaksen	UA in urban development projects in and around Drammen
OCT 25 2022	8	Open day at Tangenkaia	Introduction to the urban development project “Tangenkaia” ² . Meet and greet. BNE project team, project partners, neighbors, other UD actors, representatives from local authorities.
NOV 08 2022	1	Presentation: Neighborhood gardens at Fjell	Meet possible informants and get to know local UA initiatives
NOV 08 2022	4	Workshop on stakeholder identification and analysis	Identifying and analyzing stakeholders for the RCUA together with two representatives from EGH
NOV 17 2022	2	Meeting with SLA	Nature based solutions and UA in urban development.
NOV 23 2022	2	Presentation of sociocultural study at	Access to information on a new social study.

² “Tangenkaia”: A future urban development project of an former industrial area including railway property at Strømsø / Drammen.

Date	Time	Event/Topic	Reason
		“Knutepunkt Strømsø” ³	Meet and greet with neighbors, local and regional stakeholders, representatives from local authorities.
NOV 30 2022	1	Sightseeing at Gulskogen	Getting to know other urban development projects in Drammen.
JAN 25 2023	2	Meeting with the historical society of Drammen	Godsen as a building of historical value.
FEB 03 2023	1	Communication strategy	Get insight in the official communication strategy for Godsen
FEB 06 2023	1		
FEB 06 2023	1	Konnerud Strømsgodset Hagelag	Planning a workshop on compost
FEB 08 2023	2	Knutepunkt Strømsø: Public meeting about the municipal area plan	Learn about the proposed municipal area plan and meet potential stakeholders.
MAR 27-31 2023	15	Åssiden High school’s project week	Local high school students building furniture, rooms, cabins, flower boxes, planters and trellis.
MAR 25 2023	2	Exhibition opening of Østlandsutstillingen	Experience Godsen as the location of an art exhibition.
MAR 27 2023	2	Samskapingsmøte (Co-creation meeting) at Strømsø	Observe and participate in citizen participation. Document access. Meeting possible informants.
APR 2023	6	School garden at Godsen 2023	Meetings with different schools to prepare for the school garden project at

³ “Knutepunkt Strømsø”: Drammen Municipality’s activity center and information point in Strømsø City District.

Date	Time	Event/Topic	Reason
			Godsen 2023. Identification of school needs.
APR 19 2023	6	Official opening of Godsen	Experience Godsen as a location for concerts and public presentations.
JUN 20 2023	5	Kulturytring: Concert at Godsen	Experiencing Godsen as a concert arena, bar etc.
JUN 26 2023	1	Meeting with Worldcup Drammen and Bragernes Congregation	Participating in a discussion on how UA can co-exist side-by-side with other users of the same space.
JUN 26 2023	4	Receive donation from Bragernes Rammeservice og Kunst og antikksenteret	Experience cooperation between actors and how donations are received and stored according to planned use.

Attachment 5: Interview guide

The following interview guide was approved by Sikt – Norwegian Agency for Shared Services in Education and Research:

Et utvalg av spørsmålene nedenfor vil benyttes i semi-strukturerte intervjuer / fokusgruppeintervju.

Generelt

- Hvor kommer du fra?
- Hva er din tilknytning til Drammen?
- Hvilke interesser har du / dere for bruk av Godsen / Godsløkka?
- Hva ønsker du at Godsen / Godsløkka skal tilby?
- Hvilken rolle ønsker du / dere å spille i utviklingen av Godsen / Godsløkka?
- Hva er urbant landbruk for deg?
- Hva bør et ressurscenter for urbant landbruk inkludere?
- Hvordan synes du at urbant landbruk skal være en del av den nye bydelen?
- Hvilke konsekvenser vil et grønt fokus ha for hvem som bruker området?
- Hvem tror du at kommer til å bo i den nye bydelen?
- Hvordan kan man sikre at personer fra ulike inntektsgrupper kan bo i Nybyen og Godsløkka?
- Hva tror du om prisutviklingen i Nybyen framover?
- Hva tenker du om gentrifisering?
- Hva tenker du om sosial blanding i byen / bydelen / boligprosjekter o.l.?
- Hvordan ser du på alternative modeller for sosialt bærekraftige boliger?
- Hvordan tror du planene for Nybyen og Godsløkka vil påvirke hvem som bor der i framtiden?
 - Hvorfor?
- Hva vil det bety at området ikke er tilrettelagt for bilbruk?
- Hvem er det viktig at er med i utviklingen av Godsen / Godsløkka?
 - Hvorfor?

Sårbarhet, matfattigdom og dyrking

- Hvordan kan et regionalt senter for urbant landbruk brukes for å begrense sårbarhet og matfattigdom?

- Hvilke erfaringer har du / dere fra dyrkingsaktiviteter?
- Hvilke elementer ser du på som viktige for å lykkes med å integrere sårbare grupper
 - Hvorfor?
- Hvilke grønnsaker liker du
- Hvilke grønnsaker bruker du når du lager mat
- Hvilke frukt og bær spiser du / dere hjemme
- Spiser du andre grønnsaker i Norge enn i hjemlandet / utlandet?
 - Hva er årsaken til at du spiser andre grønnsaker i Norge enn i hjemlandet / utlandet (kostnad, tilgang el.a.)?
 - Hvilke grønnsaker savner du?
- Har du erfaring med å dyrke mat?
- Dyrker du hjemme?
 - Hva dyrker du?
 - Hvor dyrker du?
 - Hvordan dyrker du?
- Har du lyst til å lære mer om dyrking?
- Hva har du lyst til å lære mer om?
- Hvordan lærer du best?
- Hva er det viktigste for deg når du jobber i hagen / med planter?
- Liker du å jobbe alene eller sammen med andre?
- Hvilke andre ting er viktig for deg når du dyrker mat?

Inkludering

- Hva skal til for at Godsen / Godsløkka blir et sted alle innbyggerne i Drammen ønsker å dra til?
- Hvilke aktiviteter anbefaler du at tilbys på og i tilknytning til Godsen / Godsløkka?
- Hvilke andre tilbud anbefaler du Godsen / Godsløkka?
- Hva er viktig å tenke på for å lykkes med integrering?
- Hvordan kan det sikres at folk i alle aldre ønsker å besøke Godsen / Godsløkka?
- Hvordan kan dyrking brukes i inkludering (mot utenforskap)?

Avslutning

- Er det noe annet du har lyst til å legge til?

Attachment 6: Information letter with consent form

Vil du delta i en masteroppgave om «Regionalt senter for urbant landbruk på Godsens»?

Dette er et spørsmål til deg om å delta i forskning knyttet til en masteroppgave i urbant landbruk, hvor formålet er å undersøke hvordan et senter for urbant landbruk kan bidra til sosial utvikling i Drammensregionen. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål

Formålet med masteroppgaven er å undersøke hvordan et senter for urbant landbruk kan bidra til sosial utvikling på ulike områder i Drammensregionen. Studien vil se på hvilke interesser ulike instanser har i utviklingen av Godsens som et regionalt senter for urbant landbruk, hva senteret kan bidra med for å begrense sosial sårbarhet og matfattigdom og hvordan Godsens kan sikre et inkluderende miljø for alle innbyggerne i regionen.

Hvem er ansvarlig for forskningsprosjektet?

Norges miljø- og biovitenskapelige universitet (NMBU) er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?

Du får spørsmål om å delta i studien fordi:

1. Du bor i Drammensregionen og kan bidra med lokal informasjon og gode idéer og / eller
2. Du har relevant kompetanse og / eller erfaring fra sammenlignbare tilbud og initiativer.

Hva innebærer det for deg å delta?

Deltakelse i studien innebærer et intervju (30-60 minutter) og / eller deltakelse i en fokusgruppe (45-90 minutter). Du vil få en intervjuguide eller en beskrivelse av fokusgruppeintervjuet i forkant slik at du kan forberede deg på forhånd. Spørsmålene kan for eksempel handle om hvor du kommer fra (nasjonalitet) og din tilknytning til Drammen, hvordan du mener Godsens og bydelen bør utvikles, gentrifisering, boligmarkedet og / eller dine erfaringer med dyrking og / eller sosiale- og samfunnsrettede tiltak.

Intervjuene vil foregå ansikt til ansikt eller digitalt, fokusgrupper vil arrangeres fysisk på avtalt sted.

Lyd- / videoopptak og / eller notater fra intervju vil skje med tillatelse fra deg som deltar.

Transkribert intervju eller notater vil gjøres tilgjengelig eller sendes til deg som deltaker for eventuell revisjon og godkjenning.

Eventuelle foresatte / verge kan, etter forespørsel, se på intervjuguiden i forkant.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

I arbeidet med innsamlet data vil Maria Trettvik, masterstudent i urbant landbruk, med veiledere Trine Hvoslef-Eide og Roberta Cucca ha tilgang.

Datamaterialet vil nummereres og anonymiseres. Navn og kontaktinformasjon vil lagres separat. Deltakere vil ikke kunne gjenkjennes i publikasjoner.

Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes?

Prosjektet vil etter planen avsluttes *når oppgaven blir godkjent* i løpet av sommeren 2023. Etter prosjektslutt vil datamaterialet med dine personopplysninger anonymiseres og video- og lydopptak slettes.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra NMBU har Personverntjenester vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

- Maria Trettvik, masterstudent i urbant landbruk, maria.trettvik@nmbu.no, mobil: (+47) 4747 5517
- Veileder Roberta Cucca, roberta.cucca@nmbu.no
- Veileder Trine Hvoslef-Eide, trine.hvoslef-eide@nmbu.no
- Personvernombud Hanne Pernille Gulbrandsen, personvernombud@nmbu.no

Hvis du har spørsmål knyttet til Personverntjenester sin vurdering av prosjektet, kan du ta kontakt med:

- Personverntjenester på epost: personverntjenester@sikt.no eller på telefon: 53 21 15 00.

Med vennlig hilsen

Prosjektansvarlig
(Forsker/veileder)

Maria Trettvik

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om studien «Regionalt senter for urbant landbruk på Godsen», og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i intervju
- å delta i fokusgruppeintervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

Dato, signatur

Attachment 7: List of stakeholders

Name / description	Role / sector
Allegro, marketing	Private sector
Anette Borge, artist	Private sector
Anna Novalova, photographer	Private sector
AtSite, landscape architect	Private sector
Auen Urtegård, ecological herb farm	Private sector
Bane NOR Eiendom, owner and developer	Developer / owner
Bare Bra Barnemat, food for children	Private sector
Blue Cross	NGO
Bragernes School	Public sector
Buskerud Kunstsenter	NGO
Byantikvaren	Public sector
Byantropologene AS	Private sector
Byen vår Drammen	Private sector
Casse-Cou Project	Other
Charity Chefs	NGO
County Governor of Oslo and Viken	Public sector
Danvik School	Public sector
DEMO Kollektivet DM, culture and youth	Public sector
Department of Education DM	Public sector
Drammen Hagelag, horticultural society	NGO
Drammen High School	Public sector
Drammen Historielag, historical society	NGO
Drammen Municipality (DM)	Public sector
Drammen Museum	Public sector
Dystopia	Private sector
Ecomnia Paulsen	Private sector
Evas Grønne Hage, coordinator	Activity coordinator

Name / description	Role / sector
FAU at local schools	Other
Fikseriet DM	Public sector
Fontenehuset	NGO
Formverk	Private sector
Gatas Parlament, artist	Private sector
Gründerhuset at SporX	Private sector
Grønne Drammen	NGO
Gummifabrikken	Private sector
Hageland	Private sector
Hagemagi	Private sector
Heltberg School	Public sector
Haandbryggeriet	Private sector
Individual citizens	Other
ISS	Private sector
Jasmin Kvinnenettverk, woman's network	NGO
KAP/Kontor for Arkitektur og Plan AS	Private sector
Knutepunkt Fjell DM	Public sector
Knutepunkt Strømsø DM	Public sector
Konnerud Strømsgodset Hagelag, horticultural society	NGO
Konsertforeningen Strømsø, concert association	NGO
Kristiane, yoga teacher	Private sector
LEVA Design, citizen participation coordinator	Private sector
Lier Bygdetun	NGO
Lierdalen Lysstøperi	Private sector
Lindum	Private sector
Lund Hagem Arkitekter AS, architect	Private sector
National Centre for Urban Agriculture (NMBU)	Public sector
Naturvernforbundet (Friends of the Earth Norway)	NGO

Name / description	Role / sector
NAV, the Norwegian Labour and Welfare Administration	Public sector
Nina Holtan, photographer	Private sector
NMBU	Public sector
Norges Sopp- og Nyttevekst Forbund	NGO
Norsk Botanisk Forening	NGO
Norsk Kulturforum (Kulturytring)	NGO
Norwegian Farmers and Smallholders Union	NGO
Norwegian Food Safety Authority	Public sector
Norwegian Green Building Council	NGO
Norwegian Institute of Bioeconomy Research (NIBIO)	Public sector
Norwegian Red Cross	NGO
Norwegian State Housing Bank	Public sector
Nybyen Beboerforening, neighborhood association	NGO
Nærutvalget Strømsø DM	Public sector
Omtre	Private sector
Papirbredden Karrieresenter	Private sector
Plantasjen	Private sector
ProjektorPøblene AS	Private sector
Reiersøl Planteskole	Private sector
Rødskog School	Public sector
Signaturhagen	Private sector
SLA	Private sector
Smitheström farm, Sellæg AS	Private sector
Studentsamskipnaden i Sørøst-Norge	NGO
Svartskog Music AS (Maja Ratkje), artist	Private sector
The Bosnian Cultural Association in Drammen	NGO
The Norwegian Farmers' Association	NGO
The Shakin' Night Cats, artist	Private sector

Name / description	Role / sector
Tinkr	Private sector
Ungt Entreprenørskap	NGO
University of South-Eastern Norway	Public sector
Ureist	Private sector
Viken County Municipality	Public sector
Viken Entreprenør	Private sector
Visit Drammen	Private sector
Økologisk Buskerud	NGO
Økologisk Norge	NGO
Østlandsutstillingen	NGO
Åssiden High School	Public sector

Sources: Field notes 2022; 2023; I01; I02; I03; I04; I05; I06; I07; I08; I09; I10; I13



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