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Alliances for Sustainable Farmland Management

**A Case Study of the Farmland Preservation Movement and a
CSA Initiative in Norway**

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Abstract

The global community fails to manage farmland the way it demands for and consequently faces major challenges loss of farmland as a result of urban expansion. This is also the case in Norway. While the topic of farmland preservation has received attention in the political debate, several politicians and multiple grassroots organizations are dissatisfied with the current state of farmland preservation. Politicians in opposition to the government are accompanied by farmer unions, environmental organizations, and farmland preservation alliances in the demand for better farmland preservation. In parallel to this, there is a growing trend of alternative food networks throughout Norway. This study investigates four organizations, three political associations active in the farmland preservation movement, and a Community Supported Agriculture (CSA) initiative, with the aim to generate more knowledge about how grassroots actors can function as knowledge bearers and agents of change in the political sphere affecting farmland preservation and farmland management. The main research question is: How can farmland preservation movements and alternative food networks contribute to build alliances between actors involved in farmland management? The results provide contextual knowledge about the situation of farmland preservation and management in a municipality in the central part of Eastern Norway. Through the perspectives of four actors who engage in preserving farmland in the case area, this study presents valuable information about how grassroots actors can function as knowledge bearers and agents of change in the political sphere affecting farmland preservation and farmland management.

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Introduction

Rural-urban migration and an industrial food system maintains a distance between farmers and eaters, farms and forks. As people move to urban environments and agriculture is changing to less labour-intensive technologies and practices, less and less people have direct contact with the land. Who, in an urban environment, knows where the food they eat come from? Consider that 95 % of our food comes from soil (FAO, 2017). Who thinks about soil, when they buy plastic-wrapped food in the supermarket and cook it in their urban homes? Who are aware that the food they eat is the result of a production method that has a certain impact on soils? Who are aware that different diets put different levels of pressure on soils? Healthy soils, in its variety of qualities, is essential for a healthy environment and human existence. Yet, the global community fails to take care of soils the way it demands for and consequently faces major challenges with soil degradation (FAO, 2015).

The reasons for human-induced soil degradation are many, ranging from environmentally destructive farming practices to urban development that takes land. Development that removes topsoil and covers with concrete or asphalt, results in loss of ecosystem services of water infiltration and purification, of soil biodiversity, soil carbon storage potential, and potentially change the microclimate (FAO, 2015). The challenge becomes how to develop societies in such a way that land and soil can be managed sustainably.

So how is farmland managed in a sustainable manner? The World Soil Charter, an instrument introduced by the FAO to encourage a sustainable management of soils to all members of the United Nations, defines sustainable soil management as comprising activities that “maintain or enhance the supporting, provisioning, regulating and cultural services provided by soils without significantly impairing either the soil functions that enable those services or biodiversity” (FAO, 2015, p. 8). According to recent

contributions to agroecology, this requires political environments which allow for this maintenance and enhancement to happen (de Molina, 2013; Méndez, Bacon, & Cohen, 2013). It could thereby be argued that an important task of those who make decisions about land use change and management is to preserve soils from land take¹ (especially the form that permanently covers land and soil), and ensuring agricultural production systems that allows for healthy soils.

Public management of farmland in Norway does not include a legal protection of farmland, such as is the case for e.g. nature reserves. A proposition for a national farmland preservation strategy was in september 2015 up for hearing in the Parliament, where organizations could come with comments and propose changes (Farmland Preservation Alliance, 2015). After considering several counter-proposals from green and left-wing political parties, The National Assembly decided on the government's proposed farmland preservation strategy in December 2015 (Matdepartementet, 2015). The main goal of the strategy is to decrease annual conversion of farmland to other uses from approximately 600 hectares to 400 hectares by 2020. Only 3.7 % of the total land area in Norway is agricultural area, and many of the most productive areas are close to urban areas which are growing (Gundersen, Steinnes, & Frydenlund, 2016). According to Gundersen et al. (2016), 9760 hectares of agricultural land was converted between 2004 and 2015, most of it within or near urban areas.

The Norwegian Government states that agricultural areas are “important as basis for employment, settlement, wealth creation and a living cultural landscape across the country” (Moderniseringsdepartementet, 2017, p. 36). It also recognizes the link between land use and preservation of land resources, that both quantity and quality of soils are essential; that it is a “prerequisite to reach the production goals” in agriculture

¹ “The concept of land take covers all forms of conversion for the purpose of settlement, including: the development of scattered settlements in rural areas; the expansion of urban areas around an urban nucleus; the conversion of land within an urban area (densification); and the expansion of transport infrastructure such as roads, highways and railways. Broadly, this discussion considers as land take any conversion of agricultural, natural or semi-natural land cover to an ‘artificial’ (e.g. human-made) area. A greater or smaller part of land take will result in soil sealing. Soil sealing means the permanent covering of an area of land and its soil by impermeable artificial material such as asphalt or concrete, for example through buildings and roads” (FAO, 2015, p. 65).

(Matdepartementet, 2016, p. 10). While taking care of good agricultural soils is a stated goal of the Government, they also aim to “balance farmland preservation against the needs of greater society” (Matdepartementet, 2016; Regjeringen, 2013, p. 33).

While the topic of farmland preservation has received attention in the national government and National Assembly, several politicians and multiple grassroots organizations are dissatisfied with the current state of farmland preservation. A quick search in Norwegian news channels shows that farmland preservation continues as a hot topic for debate (Johansen, 2017; Konstad, 2017; NRK, 2015). Politicians in opposition to the government, are accompanied by farmer unions, environmental organizations, and farmland preservation alliances in the demand for better farmland preservation. The quest for sustainable farmland management continues.

Previous research and need for new knowledge

Alterman (1997) found in a comparison of six nations and their farmland policies that farmland preservation was increasingly being challenged by a decrease in income from agricultural production and competition from other goals and needs of society. Further to this, there was no strong correlation between degree of success in farmland preservation and planning strategies. When countries or regions succeeded with farmland preservation, it was due to policies regarding other areas than farmland management that led to farmland preservation as an unintended consequence. (Alterman, 1997)

Slätmo (2014) found in studies of farmland preservation in Sweden and Norway that the causes behind agricultural land use change are context dependent, depending on location, activities of the community, and the values ascribed to the land; for production, conservation and recreation. She argues that the most important precondition for farmland preservation is the existence of the political will to do so. One main point of

Slätmo's study, which suggest a transfer of decision making power over land use to higher institutional levels, is supported by the study of Saglie et al (2006), where farmland preservationists from different groups share the opinion that local governments are unable to ensure farmland preservation. The farmland preservationists claimed that when local politicians were too focused on local development and re-elections, the decisions they make were in favour of short-term economic profit at the expense of long-term management of resources (Saglie, Falleth, Bloch, Bye, & Steinnes, 2006).

Saglie et al. (2006) interviewed actors involved in farmland preservation in three municipalities in Norway, and found that farmland preservation was partly defended in a productionist perspective as production factor for agriculture, and partly defended by a long-term sustainability discourse, where ensuring future generations the opportunity for food production becomes a moral duty. This is similar to the findings of Bunce (1998), who found that the farmland preservation discourse in North America relied on two ideological foundations: environmentalism and agrarianism.

Two competing sets of values were identified within each ideology. They converge across the ideologies. The environmentalist argument for protecting the resource base coincides with the agrarian argument for maintaining a productive agricultural economy, and the environmentalist argument for general environmental protection coincides with the agrarian argument for preservation of rural farming culture and restoration of connections between people and nature (Bunce, 1998). As the farmland preservation movement in North America matured, the two ideological foundations merged under the "sustainability umbrella". This again is similar to the findings in the Norwegian study from 2006, which suggest that the distance between the farmland preservation arguments of economy and sustainability is smaller than before (Saglie et al., 2006). Another interesting finding from Saglie et al. (2006) is that civil organizations can have an important function in objecting the decisions about conversion of farmland made by the municipality council. In a municipality where an environmental organization actively

followed decision making processes of farmland development, many requests for farmland conversion were rejected by the County Governor.

Vinge (2015) discusses the history of farmland policy and agricultural policy in Norway in a food sovereignty perspective. The policies have been developed from being anchored in principles in accordance with the concept of food sovereignty, to a more neoliberal direction focusing on food security (Vinge, 2015). Vinge suggests that analyzing contextual knowledge of how different actors deal with the issues of farmland preservation and management is important in order to determine ways of moving towards a sustainable future (Vinge, 2015, p. 101).

The driving forces behind the urban development are multifaceted and depend on the state of nature and society in each specific location. Previous research suggest that the level of knowledge and education among individual landowners and farmers affect the decisions made about land use and management at the local level (FAO, 2015). But the level of knowledge and education among individuals depend on the socio-political structures and dominant value systems that provide the framework within which development strategies, farming practices and soil management are determined (Méndez et al., 2013). Thus, the level knowledge about soils and its management is important both at ground level, and higher up in the political hierarchy.

The previous research on farmland preservation suggests that farmland preservation relies on consistent and holistic policy, and that there is political will to prioritize long-term management of resources before short-term economic gain. This depends on a multiplicity of factors; what discourses are dominating in the farmland preservation debate, whether it is a neoliberal or sustainability focus on production and economy, the context in each specific location. The sustainability discourse is dominating in farmland preservation arguments, both internationally and in Norway, while the political environment in Norway now goes in a more neoliberal direction where farmland

preservation in itself is less important; as competition and free trade become the solutions to increased food production and access to food as in food security (Vinge, 2015). This shift to more neoliberal policies can also explain the dissatisfaction among the 'green' political parties and civil society organizations, who continue the fight for a stricter farmland preservation. What power lies in the sustainability discourse to give opportunities for the traditional agrarian and environmental organizations to create alliances with the sustainable food movement for sustainable management of farmland and farmland preservation?

The focus of research

In an ever-changing political landscape, the situation of farmland and farmland preservation is uncertain. The question becomes what land is to be preserved, why, how, and by whom. In the Norwegian case, previous research on farmland preservation has often been focused on policies and their efficiency in preservation and allocation of farmland.

When it comes to studies of soil conservation and sustainable agricultural management, politics has often been left out of the discussion (FAO, 2015; Méndez et al., 2013). But the growing trend of alternative food movements and sustainable agriculture has inspired researchers from a variety of scientific disciplines to acknowledge the politics of food and agriculture (Méndez et al., 2013). A study by Hvitsand (2014) touches upon how Community Supported Agriculture schemes can contribute to strengthened farmland preservation, through providing perspectives and awareness about the food system (Hvitsand, 2014).

Following the development of a political agroecology, that will be outlined in detail further down (de Molina, 2013; Holt-Giménez & Altieri, 2013; Méndez et al., 2013), I suggest that a study of the farmland preservation movement and a CSA can provide a

deeper understanding of how alliances on grassroots level can contribute to sustainable management of farmland and hence to sustainable food systems.

Research objectives and research questions

This study investigates four organizations, three political associations active in the farmland preservation movement, and a Community Supported Agriculture (CSA) initiative. All four are active in a municipality in the central part of Eastern Norway.

The two main objectives for this study relate 1) to the case studied, and 2) to the field of agroecology. The investigation aims to contribute to the search for a sustainable farmland management. For the matter of agroecology, the study aims to exemplify how research within the field can contribute to policy-related discussions and be openly political. The more specific aim is to generate more knowledge about how grassroots actors can function as knowledge bearers and agents of change in the political sphere affecting farmland preservation and farmland management.

The following research question will guide my research:

How can farmland preservation movements and alternative food networks contribute to build alliances between actors involved in farmland management?

To investigate the potential for alliance building in the case area, I will investigate the following sub-questions in further detail:

What are the main arguments for farmland preservation among actors who work for farmland preservation and sustainable farmland management in the case area?

How do actors involved in farmland preservation initiatives and alternative food networks in the case area envision a sustainable management of farmland into the future?

As a basis for the research is the loosely defined framework of Political Agroecology. In short it is seeking to contribute in shaping socially, economically and ecologically sustainable farming and food systems of the future, by focusing on policies and the power of civil society to influence these systems.

Establishing A Political Agroecology

Agroecology has developed from a field of research focusing on the ecology of agricultural practices and agroecosystems, to encompassing the study of relationships between actors, and flows of energy and materials at interacting hierarchical levels of the entire food system (Francis et al., 2003; Gliessman, 2014; Méndez et al., 2013). Later contributions have argued for agroecologists to recognize their place in influencing policy and politics, and establish a political agroecology inspired by political ecology (de Molina, 2013; Holt-Giménez & Altieri, 2013; Méndez et al., 2013). Méndez et al. (2013) outlines agroecology as a transdisciplinary, participatory, and action-oriented approach, which functions as a framework that engages with “political-economic issues that affect agro-food systems” (Méndez et al., 2013, p. 6). They further argue for a transformative agroecology that is “explicitly committed to a more just and sustainable future by reshaping power relations from farm to table” (Méndez et al., 2013, pp. 11–12). That requires that agroecologists move beyond the farm-scale to consider the broader forces such as market and government institutions that undermine farmers’ agricultural practices, economic self-sufficiency, and the ecological resource base.

Agroecosystems and food systems, in being socio-ecological constructions, are produced through power relations (de Molina, 2013; Holt-Giménez & Altieri, 2013).

Thus one can say that agroecology as a research field has a responsibility to contribute in the making of these systems, and suggest alternatives that can ensure farmer livelihoods, a sustainable agriculture, and sustainable food systems (Holt-Giménez & Altieri, 2013). This will necessarily also imply a focus on politics and policy, which are crucial in setting the political-economic frameworks within which sustainable farming and food systems can develop and succeed (de Molina, 2013).

According to de Molina (2013) it is the responsibility of the State or its planning bodies lower in the hierarchy to enable change to sustainable practices in farming and food systems. However, in a democratic society, each individual also has an opportunity to influence the political-economic climate through voting, being members of civil organizations, and as consumers (Rommetvedt, 2002). Resource conflicts can provoke rural communities to demand for change in the policies that affect agroecosystems and the larger systems they exist within. As such, social movements play a key role in the quest for sustainability. Political agroecology is thus “also a science of collective action in favor of sustainability; a philosophy of action” (de Molina, 2013, p. 49)

Following de Molina (2013), “the mission of political agroecology is producing knowledge that makes possible the establishment of institutions and social movements favorable to the development of agrarian sustainability” (de Molina, 2013, p. 54)

Method summary

With a starting point in political agroecology, a qualitative research approach and case study methodology were used for research. Semi-structured in-depth interviews was the method of data collection. The four interviewees represented four actors, three political organizations and a CSA active in a municipality in the central part of Eastern Norway.

Methodology

With a qualitative research approach, the study focuses on gaining a large understanding of each individual perspective. It aims for quality in the sense of a deeper understanding; seeking to capture “the whole” of the perspectives included in the study (Ragin & Amoroso, 2010). A Case Study methodology was used because of the complexity of the food system where farmland preservation and sustainable farmland management happens, and as the research questions, asking *how*, would benefit from in-depth qualitative understanding (Yin, 2009). Following a case study methodology outlined by Yin (2009), a case study research design was developed prior to data collection. The thesis aligns with a social constructionist approach to social research, acknowledging the social constructions of reality.

The material and criteria for choosing it

The specific case area chosen is a municipality in a county in the central part of Eastern Norway where farmland preservation is a relevant concern due to urbanization and population growth. Currently the population is at 25,000, and the municipality plans for a high population growth in line with the regional development plans. The municipality has a favorable climate and good soils for agriculture, and a diverse agricultural production.

Interviewees were chosen based on recommendations from the agricultural office in the municipality, and through searching in online media to see which participants were active in the debate about farmland preservation. Variation among actors regarding differences in size, structure, and working area of the organizations was strived for.

The four following actors were included in the study: A farmland preservation alliance (county level), a farmer union (county level), an environmental organization (municipality

level), and a Community Supported Agriculture (CSA) initiative (community level). Of the representatives interviewed there were two women and two men.

The farmland preservation alliance, hereafter called the FPA, was established in 2012. The alliance is part of a network of farmland alliances around Norway, however they are not registered as a national organization and function as separate entities. They work with a goal of farmland preservation, and function as a consultative body in farmland regulation cases in the county. The alliance's member group is made up of single members and organizations. The leader of the FPA represented the organization in the interview.

The farmer union, hereafter the FU, has represented farmers in Norway since 1896. The union has local branches at municipality level and county level under the national organization. They work to spread information about farming and policy issues related to agriculture to both farmers and politicians. An advisor from the county branch represented the FU in the interview.

The environmental organization, hereafter the EO, was established in 1914, and is the oldest nature and conservation organization in Norway. The organization has local branches at municipality level and county level. They work to preserve nature and natural resources including farmland. The leader of the local branch in the municipality represented the EO in the interview.

The CSA initiative, hereafter the CSA, was initiated in 2014/15. It is organized after a mix of private business and CSA model, where members can buy agricultural products from farms in the local area and take part in organic gardening. It was the manager of the business who represented the CSA in the interview.

Method of data collection

The method used for data collection was semi-structured in-depth interviews following Kvale (1996). The interviews were conducted during two case visits in September and October 2015, in a municipality in the central part of Eastern Norway. The interviews took between 45 minutes and 1 hour, and were done face to face in locations chosen by the interviewees. One was conducted in the interviewee's home, one in the office of an organization, one in a café in the local town, and one in a little shop affiliated with the CSA. A simple interview guide with themes related to the research questions was used as a basis for conducting the interviews (see Appendix 1). The main themes were; value of farmland, farmland preservation and sustainable farmland preservation, and knowledge and building alliances.

The story of farmland preservation in Norway is illuminated through the subjective perceptions and experiences of the organizations' representatives. The actors were interviewed once. The actors, the specific locations and local branches of organizations are anonymized. For the further matter of ethical considerations, the study was reported to the Norwegian Centre for Research Data.

Methods of analysis

The interviews were analyzed through two methods: meaning-condensation and coding (Kvale, 1996). However, the analysis began during the interviews with my own perception of the communication with the actors. My understanding of the case developed with the subsequent transcription of interviews. The analysis then formalized as I investigated the transcripts in the following steps: A quick read of each transcript, pointing out the first impression with regards to the three guiding research questions. The second read was thorough, and resulted in meaning condensation of sections and coding of words, phrases, and concepts that were perceived to be relevant to answering

the research questions about the arguments for farmland preservation, sustainable farmland management, and alliance building.

As the interviews were conducted in Norwegian, all the translations to English are by the author.

Results

In this section the results of the interviews will be presented to answer the research questions. The arguments for farmland preservation reveal a holistic view of farmland among the actors. With this as a basis, the perspectives on sustainable management of farmland are presented. These perspectives show how communication is key to share and generate knowledge about sustainable management of farmland. The results reveals a wish among the actors for a stronger State control of farmland resources, and development strategies that enables sustainable farmland management.

Arguments for Farmland Preservation

This section of results respond to the following question: What are the main arguments for farmland preservation among actors who work for farmland preservation and sustainable farmland management in the case area?

Through the analysis, the following arguments for farmland preservation were identified:

1. Farmland preservation for increased food production and food security in Norway
2. Preservation of a non-renewable resource for future generations
3. Farmland preservation in solidarity with the global community
4. Farmland preservation for preserving history, culture, and traditional knowledge
5. Farmland preservation for relationships between people, agriculture, and soil

The arguments in total reveal a holistic view of farmland preservation among the actors, that includes considerations of social, economic and environmental aspects of farmland.

Farmland preservation for food production and food security in Norway. Farmland preservation was seen as a prerequisite for continued food production in Norway. It was mentioned that it was a national political goal to increase food production every year, to correspond to a growing population. “Then it does not make sense to take land out of production, that is my logical thought”, said the FU representative. Another point was that if people wanted local food, farmland in the area had to be preserved to produce that food. The FPA representative said that it was a goal to make people understand that “If they want local food, they must see that it demands areas to grow it”. The FPA representative further expressed a concern for Norwegian food security in facing global and international challenges: “In potential emergency situations importing food is a highly risky business”. The EO representative argued for farmland preservation for the sake of local self sufficiency in food, saying that the goal for the community must be to provide for themselves.

Preservation of a non-renewable resource for future generations. All actors emphasized that farmland, as a non-renewable resource, must be preserved so the coming generations can produce food in the future. “We shall live, and we would like to pass on this country in a better shape than it was when we took over”, the FPA representative said. The value of farmland was seen in a long-term perspective, considering the time soil formation takes. “That is the reality when it takes many thousands of years to create ten centimeters of soil. We as a society have the responsibility to preserve it”, said the FU representative. The FPA representative stressed the importance of a holistic view on soil, that includes all layers down to the parent material, and all phases of soil formation. Linked to this was a skepticism to moving soil and replacing soil as alternatives to farmland preservation. It was not seen as an alternative to put a

monetary value on farmland, as it would be hard to justify that it is a perpetual resource that shall produce forever. Rather it was seen as a benefit for farmland preservation to consider farmland as having “a non-priced, irreplaceable value” as expressed by the FU representative.

Farmland preservation for the global community and environment. The actors argued for farmland preservation in a global perspective. As the FPA representative put it, it was a national responsibility to provide food for the population, and “not take the food out of the mouth of those who need it further down”, advocating for solidarity with the global community. It was stressed that farmland preservation is one of the big international environmental concerns. The FU representative expressed a concern for the lost farmland, how much farmland, good soil, and soil layers that disappear through erosion in a continuous process. With this, he said, “the global potential for food production is reduced, and thus it is important that we preserve what we have”.

Farmland preservation for preserving history, culture, and traditional knowledge. Another argument for farmland preservation was to preserve traditional knowledge. The FPA representative argued that people need to remember where they come from, that everybody has their roots in agriculture. She saw great value in preserving not only farmland as such, but its history and culture too. The CSA representative expressed her concern this way: “Some of the really great, older agronomists who have that knowledge which has been passed on from previous generations; if they disappear before they can pass it further, we lose a lot of valuable knowledge. I think that is a shame”.

Farmland preservation for relationships between people, agriculture, and soil. The EO representative argued that close relationships between people, agriculture and soil was essential to see the value of farmland: “Those who have grown up with a relationship to soil and farming, and those who understand the meaning of food, they understand the

value of farmland”. In the CSA representative’s perception, the knowledge about food production and farmland had been lost as the last few generations had also lost their close relationship to food. Farmland preservation thus became a prerequisite to restore and maintain those relationships.

Perspectives on Sustainable Farmland Management

This section of results respond to the following question: How do actors involved in farmland preservation initiatives and alternative food networks in the case area envision a sustainable management of farmland into the future?

The answers to this question contain perspectives on challenges of the present situation, goals for the future, and strategies to reach them. Communication, knowledge, policy, and development were recurrent themes.

Communication is key. All actors expressed a sense of responsibility in communicating the value of preserving farmland. The FPA and FU representatives both expressed that they felt a great responsibility in speaking up for farmland. The CSA representative put it this way: “It is a grassroot thing, to speak up for farmland. We have to take side with the weakest when necessary. And farmland is not in a very strong position, I would say”.

The EO representative stressed that idealism was important in the communication: “Maybe we have to compromise a little sometimes, but the idealism must be guiding”. He expressed a challenge in communicating the idealistic perspectives: “It is kind of easy for me. But not for everyone else, as I understand it. When the people you talk to look like question marks. They do not understand the perspectives you are trying to advocate”. Keeping a good communication about farmland preservation was thus seen as important, but it could be a challenge in some situations.

All actors expressed a strong belief in the strategy of communicating knowledge and creating dialogue about farmland and farming. For the sake of good communication the actors emphasized personal relationships and having understanding for other perspectives. For instance, the EO representative wished to maintain good relationships with farmers. The FPA expressed an understanding for conflicting interests in farmland preservation cases, seeing the necessity of taking some land in certain cases, for instance when expanding the railway. The actors saw how it could be tempting for the municipality governments to open up for the establishment of other businesses on farmland areas when it could generate a lot of income in the short term.

Communication with politicians and people in power was important for the political organizations. When they could participate in hearings leading up to decision-making about farmland on a political level in the municipality, they felt that they could contribute with knowledge about nature and farming, and through that influence the decision. They could for instance provide a bigger perspective of farmland preservation, by showing that when farmland is taken piece by piece, it can end up in large numbers nationally.

The FU representative stated that working to influence the politicians, the working groups, planning groups, and political leaders is essential. He said that they were willing to contribute with knowledge on what farmland is really about, what values it has, what production is going on there. To make it clear that “our production premises are occupied, you cannot plan something else here”. Having as a goal to influence politicians, the FU also saw it as important to train their members in the local chapters, and provide them with the necessary knowledge to influence the politicians. In the courses they emphasized the importance of creating good dialogue with other actors within the community and those involved in planning processes.

The FPA saw it as important to reach out to children and youth, as they could bring knowledge to their homes and influence their parents. They had not had the resources

to do school visits as they wished. The intergenerational perspective and time perspective was also important she said, as her impression was that older farmers and other elders were more likely to see the importance of preserving farmland. She was concerned that the younger generations would not see the value of farmland if there was no money in it. The CSA representative said it was a wish for the CSA that parents and grandparents would bring their children to the field so they could learn about where food comes from.

Knowledge is the door. Lack of knowledge about farming and the value of farmland was seen as a major challenge by all the actors. The EO representative had the perception that many modern people couldn't grasp the concepts of soil and farmland at all. The FPA representative stressed how value of soil remains hidden, and that having food on the table is taken for granted in modern society. All actors expressed in different ways how they thought knowledge about food production, farming, the value of farmland and soil health could contribute to increase appreciation of farmland, amongst both politicians and the general population.

The actors emphasized sharing knowledge as one of their most important missions. Sharing knowledge and creating dialogue, about farmland, soil health, farming, and societal needs and development, was seen to have potential in strengthening the position of farmland in policy making and the general public. The farmland preservation alliance, having farmland preservation as its only focus area, emphasized spreading knowledge about the value of farmland and the political processes around it to politicians and local populations in pressure areas. The farmer union emphasized the importance of spreading knowledge of both agronomy and political planning processes affecting farmland to farmers and politicians. The environmental organization emphasized the importance of spreading knowledge about soil in itself, for people to understand the value of protecting farmland. The CSA focused on spreading the practical knowledge of food production and farming to the general public, how that could

contribute to increase appreciation of farmland, and hence also strengthen farmland preservation.

Farmland preservation was perceived to be a populist case at the time of the interviews (2015), and the actors had the impression that there was an improved level of knowledge about farmland preservation amongst politicians. In spite of this, they said that one of their main tasks was to continue influencing politicians by sharing their knowledge about farming and the value of farmland with them. They were concerned that decisions about development of farmland were made without proper consideration for the existing knowledge. They wanted to work with influencing all political parties, independent of political affiliation. The FU representative was concerned that the politicians were unaware of what kind of areas they were supposed to manage: “It seems like some of the politicians don’t even know that someone owns these areas they are supposed to make decisions about. At least not that there is any kind of production on them. As if they are just there! That attitude is present in some, and we try to change that”.

Knowledge generation about farming and the value of preserving farmland was seen as interdependent on relationships between people, food and land. A motivation for the CSA representative to start up the CSA, was to provide an opportunity for passing on and sharing knowledge from farmer to consumer: “In the CSA, out on the field, you can learn from the farmer about how to do things. Then you can pass it further on. Also when producers and consumers meet and can ask each other directly, about each others needs and wants. That knowledge exchange is important.”

The actors expressed a wish for increased knowledge about sustainable farming practices. It was a worry that industrial agriculture was harmful to the soil, and thus a need to find farming practices that take care of the soil and its properties. For the FPA

representative, preserving the soil also meant looking at the negative effects of industrial agriculture, and how it depletes the soils and compacts it. This concern was shared by the FU representative, who explained how it was a wake-up call for many farmers when they saw what happened with soil compaction: “When we clear the ridges, start to grow them and get bigger yields there, that says something about having taken out more than what has been brought back. We cannot continue that way”. According to the FU representative, it was a growing interest among farmers for agronomy and long-term thinking in the management of farmland and living soil. The CSA representative expressed a support to farmers who think about the living soil: “To me, those who farm with a thought for a good, living soil, are good agronomists, because they think holistically. They see a bigger picture, than those who only narrowly think about the yields, and how much to produce at what time”.

The EO representative expressed a dissatisfaction with the ruling agricultural practices which focused on yields and output. “It is the soil we should cultivate, not the plants”, he said, expressing a more radical view of sustainable farmland management. He was concerned about how soil was mined for nutrients. He said that the understanding of the natural principles was essential to produce food in the best way, “all natural, naturally”. In his opinion, sustainable management had to consider ecosystem services from soil, and emphasized the importance of all that nature can provide us with; clean food, clean air, clean water.

As an organization concerned with nature conservation, he also expressed a concern about how the green hillsides of the municipality were developed. He saw that there could be a potential conflict between preserving farmland and preserving the green hillsides: “The green hillsides will disappear if we are to develop for housing and at the same time preserve farmland. Those are opposites. We need both. We need clean nature, healthy nature, clean air, clean water, we need it. And we need food”.

Using and promoting knowledge about farmland to raise awareness was seen as important to push farmland management in the right direction, but not a task without challenges. All actors had a strong belief that communication of knowledge was essential to reach the goal of a more sustainable farmland management.

To reach out to people, internet was mentioned as an invaluable channel. There, information could be spread to many people in short time, by sharing for instance informative articles and videos. But also meeting people in person, at food festivals, local protest meetings, or in the field when working with the CSA, was stated to be very important. Three of the actors stated that they wished to spread knowledge to children and youth, as they are the ones who are to take over the responsibility for farmland preservation and food production in the future.

Policy for Sustainable Development is the Frame. The actors were concerned that there was a gap between the visions for the development of the municipality promoted by the local government, and the actual decision-making and development. The EO representative said the politicians need to think more about how they plan for development, and questioned whether they followed their own stated vision of a green community. “The municipality vision needs more content. It seems like it is not very well thought through”.

It was a major worry for the ongoing development among the actors, but they could understand the difficulty of saying no to development. “That is how it is all the way, that society puts pressure on the land. And we do not manage to say that, no, nothing shall be developed here”, said the FPA representative. A development strategy taking farmland was not accepted by the actors. The FU representative said that some farmland could be taken in “extremely rare cases”, where large public interests count more, for instance when a railway is to be expanded. “But when it comes to housing and

other commercial development, we think it is completely unacceptable". The EO representative argued that the "violent development in peri-urban areas" had to stop at some point. Worried that the municipality could not take the population growth, he said it was a difficult question what to do with population growth and resource use.

In the FPA representative's opinion, it was short-term thinking to use it all up, the three percent of agricultural land. Strategies for development of the municipality needed to have a long-term perspective that included food production, as one of the most important productions in society. The FU representative said it was important that the politicians have good guidelines based on knowledge and competence on what farmland preservation is about.

It was emphasized that it was the responsibility of politicians to stand strong against development interests in conflict with farmland preservation. The CSA representative said the municipality government should take on the strict role and say no. "We need food, that is first priority. Even if it costs here and now, it will be a long-term investment", she said. The FPA stated that "Society needs to use more money to preserve the limited resources". She said it was rude behavior of local governments when they planned development on farmland for the benefit of commercial actors. "There is already production on this land. And it (agriculture) is the most important sector in Norway".

It was a common opinion that farmland preservation should be controlled on a higher level of governance. The concern was that when the municipalities get the responsibility, the growth interests are winning. With too many cases, the politicians lose the big perspective that is important to keep in mind with regards to preserving farmland. The FPA representative expressed how the relationships in municipalities also can get too close: "The proximity between developer and politicians and

government, it is like, 'join the local politics, and you can fight your own case'". It was a concern that it was too easy for the municipalities to ruin themselves in these cases.

The EO representative said that the 'green' parties could contribute to slow down the development processes, but that they may have too little power compared to the bigger parties. The CSA representative said that she could understand how politicians and developers found it attractive to sell land for housing or commercial development if it could generate a lot of money compared to growing grass or food there. She shared the opinion that strict governmental control was needed.

In the FPA representative's view the decisions about development of farmland should be taken on a higher level so people who assess the cases do not have a sense of belonging or any affiliation to the municipality. They could then do the same unbiased process for all municipalities, and the Land Act (Jordlova) would be abided. The FU representative said they were not happy with the national government's plan for a national farmland strategy. "We want a far more binding document. We do not think it is enough to keep the land development at the level of today. By only admitting that we will take farmland out of production, we really just delay the land development. So our baseline is that farmland shall not be touched. The policies that are enforced do not make sense. It is way too defensive".

In spite of strong opposition to the ongoing development, the actors wanted to be constructive in their critique and bring forth alternatives for development. For instance, the FPA representative expressed how a sustainable farmland management could facilitate the establishment of local food markets and allotment gardens, that would be met by the growing interest in buying local and seasonal food. It was stressed that a sustainable management of farmland requires new, creative forms of development. "Development is good, but not on the basis of taking farmland out of production for good. They say we need areas for development. Well, I don't agree with that. Because

a town that has inhabitants with initiative and drive, they can get a lot done in only sparse areas”, said the FPA representative. In the FU representative’s opinion, alternative development strategies had to take the connection and interrelations between municipalities and larger regions into consideration. He said that new thinking was required, in for instance to create new hubs in areas where there is no conflict with farmland preservation.

The EO representative said that there were always opportunities to find solutions that fit everybody, as in finding alternatives for a development that can preserve farmland while also generating money. The FPA representative expressed a need for policies which could ensure a stable economy in farming, explaining how it was difficult for farmers to manage farmland sustainably when there was little economic incentive. She mentioned how the political game of determining prices and subsidies makes it a risky business. It was also seen as a challenge in the population that people complain about expensive food. “If people want local food, they will have to accept paying more”, FPA representative said.

Strategies for alternative development could include alternative uses of land. The EO representative said that sustainable development strategies should include considerations for nature and food production. He mentioned nature parks for the community and getting people involved in CSAs as options for alternative development strategies. The FU was checking out the interest among farmers in the area for new agricultural schemes, such as CSAs. He said that as a response to the green wave and increased interest for food and farming in the population, CSAs could be an opportunity. The FPA representative said that the growing interest in local and seasonal food gave opportunities for sustainable management of farmland. The raised awareness about the value of good, locally produced food, could generate an interest in alternative uses of the farmland that did not include building on them, as for instance to start up CSAs and local food markets.

According to the FPA representative, the population was divided into those with an ideology and those without, and these two groups either see the value of preserving farmland or they do not. She thought it was a difference between landowners, those with an ideology for the production who like to live as farmers, and those who value the opportunities for economic gain and use their property as a buffer to make money. It was seen as problematic when a landowner was offered a lot of money for property, and a question whether the money or the ideology gets to decide. The FU representative expressed an understanding for the landowners who are put in a difficult position. “A landowner can make enormous amounts of money on selling the land to a developer. In our opinion it cannot be up to the individual farmer or landowner to stand up for the farmland interests in the country, or in a municipality. That is almost inhumane. We do not blame the individual land owner”.

Perspectives on Alliance Building

This section of results responds to the main research question: How can farmland preservation movements and alternative food networks contribute to build alliances between actors involved in farmland management?

All actors saw it as important to maintain good relationships, to strengthen existing alliances and create new ones. The FPA, the FU and the EO saw each other as natural allies. Cooperation between them happened mainly on county level, not between the local chapters in the municipality.

The FPA representative said one of their intentions was to create a national alliance consisting of all the local protest groups and alliances, so they could join forces instead of working separately. As of 2015, they had not yet created a national alliance, but cooperated with farmland preservation alliances in other counties towards policy-making processes in the National Assembly. Already calling themselves an alliance, they had

members varying from farmer unions, to environmental organizations, other local groups and organizations, entrepreneurs, and individual members.

The EO representative expressed a strong support to farmers and wished to maintain good relationships with them. Although he saw the potential conflict between preserving green hillsides and preserving farmland, he did not see any controversies between his organization, farmers and farmer unions. As he said; “When it comes to farmland, there are no controversies at all - we stand together. Farmers have the most important job in the world”. He expressed the value of good relationships: “It is worth gold, to build good personal relationships to those who are involved. Then it becomes easier to bring up the difficult questions and work towards a shared goal”.

Creating good relations and alliances with people in power was seen as important. The ‘green parties’, meaning the political parties who promoted agriculture, environment and farmland preservation, were seen as natural allies. But still it was a goal to influence all politicians independent of political affiliation, especially those with a lot of power. Representatives for the organizations felt that it was easier to influence a decision if they had personal relations to politicians. If they did not meet in person, they did not experience the same sense of success in influencing decision-making. In this sense, personal bias could also be of benefit for farmland preservation.

All the actors wanted to create alliances with the general public too. A strategy for this was to create dialogue, with the purpose of sharing knowledge and information. The FPA representative said that by talking to people and bringing up the subject of farmland preservation, they wanted to create conversation and dialogue, and through that open people’s eyes to the value of preserving farmland. The FU representative saw neighborhoods in pressure areas as potential allies, in cases where the inhabitants did not want the new development, but rather wanted to keep the agricultural environment

close. Other allies could be nature conservationists and people with an interest for outdoor activities who appreciate the cultural landscape.

The EO representative thought that the rapid population growth in the area increased the need for strong alliances to make things happen. He said that alliances had to be built in a wise way, so they could reach out to the general population. The EO representative suggested that all interested actors could meet in person and discuss the relevant farmland preservation cases before each political semester, with the purpose of contributing to set the political agenda, by influencing the politicians to bring the cases up in their working groups. By being prepared, having concrete cases to work for, and standing together in putting pressure on the politicians, they thought they could have a stronger influence than by standing alone. He said that if alliances were to function well, the allies had to actually meet to create the personal relations, and not only communicate by email. The interpersonal communication and respecting other people's point of view were stated to be very important.

Alternative food networks were seen to hold potential as alliances between consumers, farmers, and farmland. The FPA representative said that new initiatives with focus on food and agriculture had done a lot to open the minds of people, and that the many actors who work to promote food production contributed to bringing food closer to people. "The people want to know about the food they eat. And if they understand food production, they also understand the need for farmland preservation". The CSA representative wanted to set an example of how to do farmland preservation in practice, and through that stimulate to create dialogue and interpersonal relations on the ground. She did not see it as their task to work directly towards politicians, but rather indirectly through taking action. Interpersonal relations between farmers and consumers was seen as an important aspect and motivation for the CSA. Dialogue between these two

groups could generate a better understanding of both roles, as farmer and consumer, in relation to each other.

The FU representative saw hope in the new green wave in the population. “We see that of the election results (2015), that the parties who put environment high on the agenda were the ones who got the new voters.” Expressing a relation between the green shift in society and an increased focus on farmland preservation, the FPA representative said that they had been “very important when we started in 2012, but after the increased attention on farmland preservation we are not so important anymore”. She saw a growing awareness about farming and the use of natural resources in general, with people recognizing that there are reasons why people have used natural principles for resource management for thousands of years. As farmland preservation had become a hot topic, and was discussed more in mainstream media and the national assembly, the FPA representative thought that they might become excessive in the future, as the case of farmland preservation would be treated and taken seriously at a national level.

Discussion

Is Communication Key?

The actors were all concerned about communicating knowledge about farmland preservation and sustainable farmland management. In power of being organized at the grassroots, the political organizations saw it as their responsibility to speak up for farmland and work to influence politicians. This could be interpreted as if they acknowledged their power to influence policy, and had a strong belief in lobbying as a strategy. Having worked with farmland preservation cases for years, this was based on experience. The findings from Saglie et al. (2006), about the influential power of the environmental organization in a municipality, support this.

However, the strong belief in lobbying could also reflect a lack of better strategies to influence farmland management. The FPA representative said they wanted to communicate their message to children and youth, but did not have the resources to do so. All the actors applauded the emergence of alternative food networks, and saw that as an opportunity to communicate knowledge about the value of preserving farmland, but only the CSA representative saw it as a strategy to influence farmland management, albeit indirectly. The structure of a CSA gives potential for building personal relationships, as people from different backgrounds come together for practical work on the ground. Through these relationships, existing knowledge could be shared and new knowledge generated. Perhaps a stronger relationship between the political organizations and action-oriented initiatives such as the CSA could amplify the message of farmland preservation?

The experienced challenges in communicating perspectives of farmland preservation and sustainable farmland management could reflect a lack of good dialogue. If people do not understand arguments for farmland management, could it be a result of poor communication? Is the information in the message misinterpreted, or is it not perceived to be interesting or relevant? The differences in emphasis of farmland preservation between the actors included in the study and their opponents, could be a result of poor communication, misinterpretation of message, different value-bases, a lack of knowledge, or a mix between all of them.

Will Knowledge Open up to Sustainable Farmland Management?

It was a common perception that it was a lack of knowledge both amongst decision makers and the general population, and that this resulted in poor planning and destructive development. This strong belief in knowledge raises the question about whether knowledge can be undisputable. What type of knowledge was promoted by the actors? Was their distribution of knowledge unbiased? For instance, the FU was representing farmers' interests. How to respond to development plans in cases where it

was their own members who want to convert farmland? The results indicate that the farmer union tried to increase knowledge and build awareness about farmland preservation within their organization through training in the local chapters. The EO had a strong interest in preserving nature and the environment. How did this affect what type of knowledge they shared about farmland? The EO representative said sustainable management of farmland had to include farming practices that were “all natural, naturally”. But what are natural farming practices, in his opinion? Would sustainable farmland management look different to the EO representative, from the FU representative?

The actors shared different perspectives on sustainable farmland management, but they all expressed a concern for farming practices that destroys soil. Moreover, their arguments for farmland preservation depicts a holistic view of the values of farmland that includes considerations for nature and people, in the present and in the future. Through communication of perspectives and knowledge, could the actors come together and define their own version of sustainable farmland management for the community?

Can Policy be the Frame for Sustainable Farmland Management?

The actors shared the perception that it was a gap between visions and decisions about development in the municipality council. By continuing to inform politicians and propose alternatives to development, the political organizations took on a constructive approach. The CSA was also constructive in its essence of creating an alternative on the ground.

The worry for the ongoing development was strong, but there was also some hope in the power of the public debate to bring farmland preservation policy to higher levels. It was a common opinion that it was the responsibility of politicians to say no, and the political organizations argued for legal protection of farmland controlled by the State. They thought that was the best way to avoid bias in decision making processes in the

municipalities. Previous research on farmland preservation in Norway has pointed in the same direction (Saglie et al., 2006; Slåtmo, 2014). It is interesting, that actors who work on a local level want decisions about an important resource such as farmland to be taken on a higher level, by someone who is not familiar with the local situation. In the municipalities the actors were close to the politicians and hence to decision makers, but how would it work out if the farmland preservation cases were treated on a State level? Would the actors still have power to influence the decisions?

As exemplified by the case of farmland preservation, the political-economic issues that affect agro-food systems are complex. Although there is a lot of knowledge available about the loss of farmland, conflicting interests and asymmetrical power relations in the political food system continue to challenge farmland preservation. By creating alliances between farmers, consumers, and civil organizations, grassroots actors can challenge the existing power relations, and contribute to reshape food systems. Communicating and sharing knowledge in a way that generates shared understanding of the situation could contribute to a more even distribution of power.

Methodological discussion

In the aim to be 'action-oriented', without embarking on the research using an action research methodology that required more time and resources than I had available, I chose to ask research questions about potential for action. I realize that in predetermining the themes for interviews and unit of analysis, as was required by the case study methodology, I was in the risk of asking questions that led the actors to give me the answers I was looking for. The study would have benefitted from multiple sources of evidence, so the data obtained in the interviews could have been triangulated with for instance document studies of municipality plans or other policy documents. The research would also have benefitted from a second round of interviews, to gain a deeper understanding of the actors' perspectives. However, it was beyond my capacity to collect more data at the time. The information obtained through

the four interviews still provides valuable perspectives worth considering in the quest for sustainable farmland management in the case area.

Conclusion

The results provide contextual knowledge about the situation of farmland preservation and management in a municipality in the central part of Eastern Norway. Through the perspectives of four actors who engage in preserving farmland in the case area, this study presents valuable information about how grassroots actors can function as knowledge bearers and agents of change in the political sphere affecting farmland preservation and farmland management.

The arguments for farmland preservation reveal a holistic view of farmland preservation that is in line with the social, economic, and ecological dimensions of sustainability. Perspectives on sustainable farmland management show how communication of knowledge is essential in the dialogue between actors involved in farmland management. Moreover that policy and development plans should be based on visions for the future and existing knowledge about farming and farmland. Grassroots actors working for farmland preservation and sustainable farmland management can contribute to shape the policy and development plans by creating alliances horizontally at the grassroots, and vertically with politicians and decision makers.

By bringing together the political case of farmland preservation and the larger question of sustainable farmland management, this research contributes to the discussion of a political agroecology. Through the perspectives of the grassroots actors we get a picture of the complex power relations in food and farming systems. The topic of farmland preservation and sustainable farmland management could benefit from more research within the framework of political agroecology. What kind of power do the different actors in the political food system have to influence farmland management? How to create

systems which allow for a sustainable management of farmland, in political, social, economic, and ecological terms? Action-oriented research within political agroecology, that encourages farmers, grassroots actors and policy-makers to reshape the political food system they operate within could potentially contribute in answering these questions.

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Appendix 1

Intervjuguide

Informant: _____

Yrke/Stilling/Organisasjon: _____

Hvem er du/din organisasjon/hva jobber du med? Hvordan jobber du/dere med matjord, hvorfor?

Tema:	Notater:
Verdien av matjord <ul style="list-style-type: none">- Formål: Få forståelse av hva informanten legger i begrepet	
Jordvern og bærekraftig forvaltning <ul style="list-style-type: none">- Formål: Få forståelse av hvordan informanten tenker om jordvern og bærekraftig forvaltning av matjord- Om nåværende situasjon- Om ideell situasjon- Om egen rolle	
Kunnskap og alliansebygging <ul style="list-style-type: none">- Formål: Få forståelse av hvordan informanten ser på kunnskap og alliansebygging/samarbeid med andre aktører i forhold til jordvern- Om nåværende situasjon: eksisterende allianser- Om ideell situasjon: muligheter for å utvide/danne nye allianser- Om egen rolle	

Åpent: Noe du vil tilføye/temaer vi ikke har tatt opp?

Kort oppsummere din/deres rolle i forhold til jordvern, bærekraftig forvaltning av matjord, kunnskap og alliansebygging



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