





## Acknowledgements

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## Abstract

The industrialization of agriculture has lead many farmers into a situation of economic squeeze with increasing costs, falling income and high financial debt. In addition it has disconnected them from consumers. As a consequence, many farmers have chosen to engage in alternative food networks (AFNs). Although the emergence of AFNs is an increasing trend in Norway as in other countries, they are still rare among farmers. This thesis explores the potential for the expansion of AFNs among farmers in Norway. I have conducted a qualitative case study, where I have interviewed eight farmers in addition to other agricultural stakeholders who are involved in AFNs. The theoretical background describes the main characteristics of the industrialization of agriculture, and how this bears consequences for sustainability issues at a global level and farmers' livelihood at a local level. As a result of the case study, I have identified six socio-demographic and political forces and phenomenon in the Norwegian food system that affects farmers' choice of distribution channel and may restrain or support the expansion of AFNs. The results show that the main motivations for the farmers in the study to engage in AFNs are both the economic and the social enrichment it entails. Due to an added product value and the direct selling, the farmers who are engaged in AFNs can achieve a higher product price in comparison to the mainstream food chain, and can become more economically independent. In addition, as AFNs facilitate communication and cooperation between farmers and consumers, they can diminish loneliness among farmers and reinforce the social dimension of farming. The study also shows that a well-founded knowledge base and more efficient information flows from agricultural organizations to farmers, together with engaged farmers and consumers, create a potential of AFNs to expand to more farmers. The results are discussed in the context of the theoretical background.

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## 1 Introduction

Around the world we are witnessing an emergence of new alternative food networks and supply chains developing alongside the mainstream distribution chains, perhaps to a great degree as a result of agricultural industrialization (Ploeg 2008). For many farmers in developed countries, mass food production has failed to secure farm economy, leading them to develop new activities to ensure and increase financial revenues and to be less dependent on few markets (Renting et al. 2003; Veidal 2011; Ploeg et al. 2000). This development is part of what Ploeg et al. (2000) address as new rural development practices. Veidal (2011) uses the term farm-based entrepreneurship, defined as new activities of production, processing and distribution that are based on the farm and its resources. Examples of new rural development practices are non-food activities such as nature and landscape management and agro-tourism. Food-related entrepreneurship entails activities that add value to the farm products and relates to both production and distribution. Renting et al. (2003) presents organic production, quality production and direct selling as different types of alternative food networks. This study explores the potentials for the expansion of alternative food networks among farmers in Norway. By identifying forces and phenomenon in the Norwegian food system that affects farmers' choice of distribution channel I discuss how these forces may restrain or support the expansion of AFNs.

Alternative food networks, or AFNs, can according to Renting et al. (2003) be divided in three different types: organic farming, quality production and direct selling, and may be defined as “newly emerging networks of producers, consumers and other actors that embody alternatives to the more standardized industrial mode of food supply” (Renting et al. 2003: 394). It is a wide reaching definition and AFNs may differ from each other in several ways. “AFNs, by their nature, employ different social constructions and equations with ecology, locality, region, quality convention, and consumer cultures” (ibid.). However, I would claim that all AFNs embody the same foundation in their alternative nature, as they put emphasis on sustainable production methods, the regional origin of the product, product quality and finally the social connection between consumers and farmers.

Community Supported Agriculture (CSA), consumer cooperatives, Farmer's Market (FM), box schemes and different forms of direct sales all constitute examples of AFNs. Keeping in mind that retail stores may also offer products with added value either through organic

production methods, region-specific character or quality, the social aspect of AFNs is perhaps what differs most from mainstream food systems. AFNs may build relationships based on trust, create room for input from consumers regarding production and products, so-called consumer driven innovation (Veidal 2011), as well as open up spaces for dialogue, communication and learning (Torjusen et al. 2008).

Renting et al. (2003) and Tregear (2011) claim that AFNs emerge due to decreasing profitability for farmers and consumer perception of industrial food as unsafe and unhealthy. The occurrence of AFNs and other rural development practices is growing in numbers and outreach and “is by no means restricted to peripheral areas and that they are spreading to the same extent in parts of the European countryside previously conceived of as ‘growth poles’ of productivist agriculture” (Renting et al. 2003: 396). A newly published report by the Norwegian Agricultural Authority (SLF) on sales and production of organic agricultural products in Norway presents a clear trend in the increase of different forms of direct sales (SLF 2014). Nevertheless, the number of AFNs is still small in comparison to the mainstream distribution chains (NOU 2011: 4). The majority of farmers use mainstream distribution chains, where they continuously have to deal with the production standards of the market and struggle with financial debt, according to Løkeland-Stai and Lie (2012). Additionally, the majority of people buy most of their food at mainstream retail stores, where the retail chains to a large degree decide product selection. Thus, existing AFNs in Norway are still both *new* and *alternative*.

If AFNs, through adding value to products and cutting the middlemen may increase the economic security for farmers, and in addition enrich the social life of farming due to the social relations with consumers, why are they not more widespread among farmers in Norway? Is there a potential for AFNs to expand to more farmers? In order to answer these questions I have conducted a case study to identify restraining and supporting political and socio-demographic forces in the Norwegian food system that affects farmers’ choice of distribution channels. I first start by giving a short introduction of the main characteristics and challenges of the industrialization of agriculture, and how this may lead to the emergence of AFNs. I thereafter explain the methodology on which this thesis is based, and finally present and discuss the most important findings from the case study.

## 2 Theoretical background

A wide range of factors exist that help explain how farmers choose the agricultural methods they believe will best support their livelihood in the profession. In order to understand the factors supporting and restraining the development of AFNs among farmers this chapter will present the development paths, which have both influenced and constrained farmer's ability to implement divergent agricultural methodologies. I will explain the main characteristics of the modern industrial agriculture, how it may affect the economic situation of farmers as well as the choices related to farmers' involvement in AFNs.

### 2.1 Agricultural modernization

Although approximately 80 percent of the world farmer's are small-scale, primarily in developing countries (IFAD&UNEP 2013), industrialization is increasingly becoming more dominant across the world, particularly in developed countries. Industrial farming is based on large-scale, specialized, export and market-oriented production where farms function as large enterprises with salaried workers; production is focused on profit maximization and distribution happens mainly through large-scale food processing industries and supermarkets (Ploeg 2008). On a global basis the industrialization of agriculture has contributed to an enormous rise in productivity, employment and economic development (Rastoin 2007). In fact, never has more food per capita been produced. However, simultaneously more than one billion people are starving (Løkeland-Stai&Lie 2012) and equally many are obese (WHO 2013).

Biodiversity, the global climate, animal welfare, human health, and food quality, are all negatively affected by the industrial food system (Kloppenborg et al.1996; Rastoin 2007; Ploeg 2008; Andersen 2011; Løkeland-Stai and Lie 2012; Devik 2013). Ploeg (2008) sums this up by stating that the industrialization of agriculture implies: "the destruction of ecological, social and cultural capital" (Ploeg 2008: 11). Monocultures, high use of pesticides and other chemical inputs impact the ecological capital, together with what Ploeg (2008) calls de-contextualization of specific localities and ecosystems. The geographic centralization of production in Norway is one example of de-contextualization, where agricultural production is localized in central areas of the country distanced from grazing resources, and a large part of the production is based on imported concentrate feed instead of grassland (Løkeland-Stai and Lie 2012). When production is distanced from ecosystems, food is more a part of an engineering process than a production process, Ploeg (2008) argues.



As food production and consumption is disconnected and distanced from each other, the social and cultural capital of agriculture erodes. Kloppenburg et al (1996) describe the disempowering effect of distance has on consumer action: “If we do not know, we do not act. And even if we do know, the physical and social distancing characteristic of the global food system may constrain our willingness to act when the locus of the needed action is distant or when we have no real sense of connection to the land or those on whose behalf we ought to act. Ultimately, distancing disempowers” (Kloppenburger et al. 1996: 36).

The disconnection is reinforced by the increasing domination of a few multinational companies who control the value chains from seeds to sales. These global tendencies of corporate domination are also present in a more localized level Norwegian food system (Løkeland-Stai and Lie 2012). A report on the power relations in the food industry shows that four retail chains control more than 99 percent of the products in the mainstream food system (NOU 2011). This implies that a few large actors decide food prices and the product variety, which bears consequences for both consumers’ choices and the market access for the farmers’ products.

Not only do the agro-industrial food system have wide-ranging effects, as described above, it also creates challenges for the economic security of farmers embedded in the same system. An increasing use of external inputs and investments in new technological solutions in order to increase productivity and comply with the standards of the food industry have lead many farmers into an *economic squeeze*, where costs of production are rising and prices on raw materials and food products are falling (Ploeg 2008). As result, farmers’ economic security and perceived role as the principal managers of nature is being challenged.

The objective of any food system is "to ensure universal access to food available close at hand, which is economically accessible, culturally acceptable and satisfactory in health and nutritional terms", as defined at the world food summit organized by the FAO in Quebec in 1995 (Rastoin 2007: 21). The present industrial food system seems to have failed to reach its objective and changes are needed on a global as well as a local scale. A report from the United Nations Conference of Trade and Development (UNCTAD 2013), fronts a shift from export-oriented production to local and regional food systems as a means of increasing food security. One example in the report is community supported organic production in Germany, where shareholder participation and engagement from consumers and citizens ensure the

economic independence of such local organic enterprises.

### 2.1.1 Economic squeeze

The characteristics of industrialized agriculture as presented above are, according to Ploeg (2000), the principal objectives of what he called the European modernization project. As part of modernization of agriculture in Europe, economic development from 1950 to 1990 focused primarily on elements such as growing use of external inputs, new and expensive technology, and environmental regulations (Ploeg et al. 2000). This development was to a large degree driven by the Common Agricultural Politics of the EU, giving technical support and subsidies to facilitate the industrialization process. High productivity and mechanization gave efficiency results at first, however, in the long run the picture changed. Towards the end of the 20<sup>th</sup> century markets were saturated, production costs had increased due to continuous investments, farmers had to meet requirements from the food industry, as well as adjusting to regulations regarding sanitary measures, environment, and animal-welfare (Renting et al. 2003). In sum, the modernization of agriculture had reached its “intellectual and practical limits” expressing itself in the so-called squeeze on agriculture (Ploeg et al. 2000). Mass food production no longer gave sufficient income and farmers across Europe started looking for new sources of income (ibid.).

Although the industrialization process in Norway has not reached the levels of many other European countries, the same mechanisms are dominant. Løkeland-Stai and Lie (2012) state in their book “En nasjon av kjøttthuer – ni myter og en løgn om norsk landbrukspolitikk” (A nation of meatheads – nine myths and one lie about Norwegian agricultural politics), that a focus on productivity and investments have led many farmers into a situation of high financial debt. In addition, they demonstrate that farmer income has not had a rising curve since the end of 1970s, while both debt and other costs have increased dramatically, leading farmers into an economic squeeze. This development, the authors argue is politically controlled, for instance through subsidies that favours large production-units despite lack of local feed resources. This, together with the regulation of grain prices, led to an increased use of concentrate feed. “In practice the average Norwegian farmer has increased efficiency, seen the neighbour close down, expanded and increased production without the income following” (Løkeland-Stai and Lie 2012: 28). An increasing number of farmers have witnessed neighbouring farmers halt their agricultural production, a process Ploeg (2008) calls deactivation.

### 2.1.2 Deactivation

The process of deactivation entails a reduction or active containment of agricultural production, where labour and capital flow out of agriculture (Ploeg 2008). In other words, farmers stop being farmers. In Norway, this is highly relevant, as the pace of deactivation the last fifteen years has been among the highest in Europe (ibid.). Industrialization has led to a concentration of less and larger farms, with an average of seven farms being closed down daily in Norway during the last three decades (Løkeland-Stai and Lie 2012). The same trend is shown by Rognstad and Steinset (2011), showing that the number of farm enterprises has decreased from 198 000 in 1959 to 45 500 in 2011. It is particularly in times when volume production does not bring sufficient income that farmers choose to end the farm production. However, in order to restrain deactivation the government have implemented legislations and budgeting with the aim of increasing farmer income through new farm activities (Veidal 2011), or farmers themselves chose to diversify the farm activities.

The economic squeeze and the process of deactivation may be characteristic of a weak and troubled food system. It is within such weakness Galt (2013) finds that society pays attention. Hendrickson and Heffernan (2002) and Ploeg (2008) also claim that in this context, spaces for change and alternative solutions open up.

## 2.2 AFNs and farm-based entrepreneurship

For farm families, rural development, with innovative and new methods of production, has represented a “way out of the limitations and lack of prospects intrinsic to the modernization paradigm and the accelerated scale-enlargement and industrialization it entails” (Ploeg et al. 2000: 395). This may be seen together with the process of repeasantization.

“Repeasantization is, in essence, a modern expression of the *fight for autonomy and survival in a context of deprivation and dependency*” (Ploeg 2008: 7). Peasant farming builds upon sustaining ecological capital, improving peasant livelihood and is primarily based on family labour, and finds its ways of distribution and networking through short and decentralized circuits (Ploeg 2008). In Europe as well as in developing countries we are now witnessing an increase in the number of peasants and a further development towards autonomy, explained by Ploeg et al. (2000: 400): “Time and again we see that rural development is about: the construction of new networks, the revalorization and recombination of resources, the co-ordination and (re-) moulding of the social and the material, and the (renewed) use of social, cultural and ecological capital.”

### 2.2.1 Norwegian trends

In Norway the development of AFNs has increased in prevalence and popularity among farm families and as part of rural development, either alongside or instead of mainstream agricultural production and distribution (Veidal 2011). A report from SLF (2014) gives an overview of sales statistics of box schemes and FM. It shows a total turnover of 52 million NOK in 2013, an increase 27 percent from 2012 to 2013 counting both conventional and organic products. With regards to box schemes the numbers are based on six organic box schemes with 6000 subscribers in total. The box schemes have had an increase in turnover of 25 percent from 2012 to 2013, with a total of 30 million NOK in 2013. SLF states that this development is a result of an increasing trend among consumers of wanting to know where the food comes from. In comparison, the retail chains in Norway represented a total turnover in 2011 of 143.7 billion NOK (Pettersen 2013). Thus, although there has been an increase in turnover in AFNs they still remain as small actors compared to the mainstream retail chains.

### 2.2.2 Defining AFNs and farm-based entrepreneurship

AFNs are defined in many ways, and the definition by Renting et al. (2003) as presented in the introduction is wide reaching, however descriptive of the concept. Yet, a similar definition is: “forms of food provisioning with characteristics deemed to be different from, perhaps counteractive to, mainstream modes which dominate in developed countries” (Tregear 2011: 419), which also refers to the oppositional and alternative character of AFNs. Bergflødt (2007: 15) understands AFNs as “producers who offer a more direct and personal form of connection between production and consumption”. Renting et al. (2003) presents three types of AFNs: organic farming, direct selling and quality production.

The quality aspect expands further than the product in itself, according to Bergflødt (2007). He puts emphasis on modes of production such as caring for animal welfare and the environment. Although there are no production criteria in the different AFNs in Norway, organic and biodynamic agricultural methods are common features. Lampkin and Measures (1999) found that innovations related to conversion from conventional to organic agriculture often paralleled new marketing approaches such as direct marketing to consumers, local shops, specialist organic retailers, plus adding value through for instance processing milk to cheese, in order to obtain a premium price. Within the biodynamic philosophy the cooperation between farmers, distribution channels, and consumers, is described as a necessity, according to the Biodynamic Association in Norway (biodynamisk.no 2014).

Cooperation may find place for example within CSAs or different forms of cooperatives. Organic, and in particular biodynamic agriculture is characterised by diverse productions in order to achieve a production cycle. The social aspect of AFNs is expressed through personal exchange and communication between farmers and consumers, and in some AFNs also between the consumer members of the networks. For example, in the Oslo Cooperative members can participate in farm trips during the harvest season, or other social arrangements.

According to Renting et al. (2003), AFNs emerge due to rising consumer consciousness regarding animal welfare, the environment and ecology, health, and food quality. Thus, on the one hand conscious consumers choose AFNs. On the other hand, there is also reason to believe that when consumers are connected in a network with other farmers, they become more conscious about issues such as animal welfare and the environment. In a study on how organic box schemes in Norway and Denmark contributes to sustainability, Torjusen et al. (2008) found that the studied box schemes held the potential of creating food-system awareness, communication, social relations, and changes in food consumption practises. As such, AFNs have not only the role as food providers but may enhance sustainable consumption practices.

The farmers in this study are engaged in box schemes, FMs, Community Supported Agriculture (CSA), farm shops or direct off-farm sales, and consumer cooperatives (see figure 1). As they engage in these innovative farm activities, they may all be called farm entrepreneurs. Veidal (2011) defines farm-based entrepreneurship as new activities where the farmer, the farm and its resources are the foundation, including production, processing, sales, distribution and marketing. Farm-based entrepreneurship describes the relation between rural development and its economic impact: “The agricultural resources like soil, buildings and people associated with the farm is utilised for new economic activity” (Veidal 2011: 9). Examples of farm-based entrepreneurship include both non-food activities related to tourism and education, and food related activities such as establishing new and direct distribution channels, developing quality products and on-farm processing.

In the entrepreneurial research, changes in the surrounding environment are presented as factors that affect the entrepreneurship in a positive direction. Veidal present three changes: technological, political, and social and demographic. Political change is exemplified by

potential changes in the Norwegian alcohol law, into making sales of alcoholic beverage produced on farms legal. This may create a new market for those already producing, and open up space for farm-shops. It may also create opportunities for new products, for instance beverages made on fruits and berries, as such increasing their value. A socio-demographic change can be changes in people's food habits into valuing quality foods, and thereby creating space for small-scale quality food production (ibid.). Entrepreneurship provoked by technological changes might be more obvious, such as the invention of the milk robot, or new equipment for cheese making. In chapter 4, I present supporting and restraining forces, and changes in the Norwegian food system, of particular political and socio-demographic character that affects farmers' choices of distribution channel.

## **3 Material and methods**

### **3.1 Methodology**

The methodology I use in this thesis is case study as defined by Yin: “As a research strategy, the distinguishing characteristic of a case study is that it attempts to examine a) a contemporary phenomenon in its real-life context, especially when b) the boundaries between phenomenon and context are not clearly evident” (Yin 1981: 59). Within the agroecological education discipline the study of real life-phenomenon is “established as the starting point for the learning process” (Lieblein et al. 2004: 150). Instead of giving the agroecological theory primary value, the phenomenon determines the relevant theory (ibid.). Hence this thesis has on the one hand an inductive and exploratory approach. It is inductive because the data material constitutes the basis of the theory, and exploratory because the purpose of the study is to explore a field within which there has been done little research (Thagaard 2003). On the other hand, according to Thagaard, it is common for qualitative studies to change between inductive and deductive phases where the researcher shifts between analysing data and developing ideas based on theoretical perspectives. “Analysing data has a central place when it comes to developing ideas, and the researcher’s theoretical anchoring gives perspectives on how the data can be understood” (Thagaard 2003: 174).

In order to collect data from the farmers and other informants I conducted qualitative semi-structured interviews. Thagaard presents this as a common procedure in qualitative interviews when the aim is to obtain complex information from the participants and how they experience their own situation and experiences. The topics of the questions are planned in advance but their order is decided as the interview is being performed. Some of the informants allowed me to follow the interview guide as prepared, whereas others talked more freely and did not depend entirely on the questions asked. Semi-structured interviews create a room for the informants to tell their stories, and for the researcher to simultaneously obtain the information as planned (Thagaard 2003).

### **3.2 The cases of study: farmers and other agricultural stakeholders**

In order to explore the potential of AFNs among farmers I wanted to find out the underlying motivation and the experiences of farmers who had chosen to engage in AFNs. This would further help me to identify important factors in the food system that affected the decision making related to distribution channel. In addition I have tried to find answers to why AFNs

are still rare among farmers in Norway and what efforts could be made to make it more common.

I have interviewed eight farmers who are engaged in one or more AFNs, some of them in addition to mainstream distribution channels. In the overview of the farmers in this study, (figure 1), only seven farmers are introduced. In one of the interviews I conducted, both the farmer and the farmer's wife were actively participating. However, in order to keep the identity of the farmers anonymous, I have chosen to refer only to one name. Seven of the farmers in this study live in the outskirts of Oslo and one resides on the southwest coast of Norway. The AFNs they engage in are direct sales from farm or farm-shop, box schemes, consumer cooperative, FM and other markets. CSA have been considered by some of them. Each of the eight farmers is organic or biological-dynamic. I have chosen to call all eight farmers farm-entrepreneurs as defined in the last section of chapter 1. This is due to their engagement in AFNs and other non-food rural development practices. Due to their choices regarding production and distribution I consider them as conscious farmers, who care not only for their own farm economy but also for the wellbeing of animals, the environment, and the people involved in their network.

Additionally, I wanted to explore the perspective of conventional farmers who are not engaged in an AFN, and the agricultural organizations to which they are connected. To do this I have interviewed one agricultural advisor employed in the Norwegian agricultural advisory service, with the Norwegian abbreviation NLR, and the manager of the Norwegian FM. The interview with the agricultural advisor has given me valuable insights into the organization of NLR and how they, through their active role in farmers' lives, hold the potential of both supporting and restraining AFNs. Interviewing the manager of the Norwegian FM gave me information on the motivation behind farmers' participation in FM. Although the interviews with the farmers also focused on their motivation to participate in FM, the interview with the manager was useful because it gave me information on the market situation for FM, consumer consciousness, and the future potentials of FM. NLR and FM work for and consist of organic, biological-dynamic as well as conventional farmers, and as such represents the perspective of all the three production methods.

I have given six of the farmers new names, whereas the manager of the organic grain cooperative is addressed by his professional title.



### 3.3 Previous and current involvement in AFNs

My thesis work was interrupted by a three year-long employment in Oikos – Organic Norway, an organization working to increase organic production and consumption. In Oikos I gained insight into challenges and opportunities organic farmers face and the organic market as a whole. I have worked with a wide range of projects, many of them with the aim of bridging the gap between consumer and farmer. One of the projects most relevant to this thesis was creating a network of the Norwegian CSAs and doing informational activities in order to make CSA more known among consumers and farmers. In addition, alongside with working with this research study, I have been one of the founders of a consumer cooperative in Oslo, called Oslo Cooperative. Oslo Cooperative is owned and run by its members, and in cooperation with organic and biological-dynamic farmers in the surrounding counties distribute bags of vegetables and fruit, flour, honey, and eggs, to the members.

Oslo Cooperative is only one of many AFNs this thesis will discuss, however it is somewhat more important for the research process because of the learning experience it has given me. I have had many valuable conversations with farmers about fair pricing, seed purchase, what vegetables to cultivate, transportation issues and more. Through these relationships, connecting myself as a representative for the urban food citizen to the farmers producing our food, I have been “in the centre of the activities” (Lieblein et al. 2004).

The fact that I was involved with AFNs before I started this study puts me in a challenging situation as a researcher. On one hand, having first-hand knowledge about AFNs gives me some advantages. Thagaard (2003) writes that:

When the researcher is within the environment, he or she gets an extra understanding of the phenomenon that is studied. The experience that the researcher has in the environment gives a basis for recognition and a starting point for the understanding that the researcher eventually reaches. The interpretation is developed in relation to own experience (Thagaard 2003: 181).

Interviewing farmers and other relevant stakeholders as part of this study, in combination with being in the field and doing participant observation has given me a deeper understanding of the situation of organic farmers in Norway, and the challenges and opportunities they face. Although my experiences from Oikos are from before this study

started, it has together with my involvement in the Oslo Cooperative stimulated the thought process and expanded my knowledge on the topic of this thesis.

On the other hand, however, involvements in the environment also raise questions related to the researcher's credibility. Thagaard (2003) discusses this: "On the other hand the closeness to what is being studied can make the researcher oblivious to findings that contradict own experiences. The researcher might be less open for the nuances in the situations that are studied" (Thagaard 2003: 181). In order to obtain credibility, it is important to be able to give account for how the data material has been developed throughout the research process. This could be done for example by clearly distinguishing between the direct information from the field and discuss this critically, and the reflections from the researcher (Thagaard 2003).

### **3.4 Data collection**

#### **3.4.1 Interviews**

I have conducted qualitative semi-structured interviews with eight farmers. All interviews have been conducted face-to-face, either at their farm or at a meeting place in Oslo, during the period December 2013 to March 2014. Within the same time period I conducted one telephone interview with an agricultural advisor in the Norwegian agricultural extension service (NLR), Thomas Holz, as well as an interview with the manager of the Norwegian FM, Aina Bartmann, in her office in Landbrukets hus. The interviews lasted approximately two hours, and were based on a prepared semi-structured interview guide (see appendix 2 for farmer interview guide). The interviews were tape-recorded and transcribed as part of the analysis process. I recruited the informants through my contact network in Oikos and the Oslo Cooperative.

<b>Name</b>	<b>Age</b>	<b>Production and distribution</b>	<b>Time/place</b>	<b>Atmosphere under interv.</b>
Frank	42	Organic vegetables (appr.0.6ha), pigs and sheep. Most feed and fertilizer produced on farm. Direct sales through box scheme and off-farm, and to a box scheme in the city	1hr38 min. Home at his farm	Calm and good. Drinking freshly brewed tea and sharing lunch.
Lars	55	Biodynamic apples, honey and apple juice (10 ha arable, 640 ha forest). Appr.3000 apple trees. Retail chain, the Oslo Cooperative, restaurants, box scheme	1hr15 min. Home at his farm	Quiet and calm in the morning hours, smell of a freshly baked bread and newly made coffee.
John	56	Biodynamic vegetables (approx.0,3 ha), sheep and horses. The Oslo Cooperative and restaurants.	2 hrs. Home at his farm	Relaxing and calm with the sound of the sheep bells. Good conversations with coffee and lunch.
Jan	49	Organic eggs (7500 hens) and milk. Direct sales of eggs from farm; to retail chains; eggs to the Oslo Cooperative	1hr30min Café in Oslo	Good. Active conversation with much engagement from farmer. Drinking cappuccinos.
Knut	52	Biodynamic vegetables (approx. 4ha), and cows, horses, hens, bees etc. Vegetables sold to the Oslo Cooperative, restaurants, farm shop	1hr21min At my home	Good and calm. Drinking tea.
Ole	65	Biodynamic vegetables (approx. 4 ha) The Oslo Cooperative, restaurants, farm shop	1hr9min Café in Oslo	Good and light. Drinking coffee.
Manager of organic grain cooperative	51	Organic grain production. The grain cooperative, which again delivers to retail stores, bakeries, internet shop, private customers, the Oslo Cooperative	1 hour Café in Oslo and his car	Good. A little busy and contrasting to the subjects of discussion. Eating kebab and sharing deep reflections of sustainability issues.

*Figure 1. Overview of the interviews with the farmer participants*

### **3.4.2 E-mail correspondence**

As part of the data collection I corresponded through e-mail with the managers of six organic box schemes. The questions I asked were short and simple. I wanted an overview of the distribution of organic box schemes, both in subscribers and in farmers delivering. In addition I asked about their thoughts on the future of box schemes and whether or not they saw potential in this way of buying food. The questions and answers are summarized in appendix 3. In addition to the interview with the manager of FM as mentioned above, I corresponded with a previous employee in FM, Siv Heia Uldal. The aim of this correspondence was to find restraining forces in the work with the recruitment of farmers to FMs. I refer to results from this correspondence in chapter 4.

## 4 Findings and discussion

There is a range of factors affecting farmers' choices related to production and distribution structures on a farm, and as such contributes to the outreach of AFNs. In this chapter I present six phenomena in the Norwegian food system of political and socio-demographic character that were particularly evident in the case study. These phenomena both support and restrain farm-based entrepreneurship and the development of AFNs.

### 4.1 Economic squeeze

In chapter 2, the economic squeeze was presented as a situation where costs of production are rising and prices on raw materials and food products are falling. Said in other words, although industrial agriculture is efficient in the short term, in the long term this changes due to external environmental and social costs, and financial debt (Devik 2013; Løkeland-Stai og Lie 2012; UNCTAD 2013). According to Løkeland-Stai and Lie (2012) the productivity focus and investments in technology as part of the modernization of agriculture, have lead many Norwegian farmers into a situation of high financial debt. Can AFNs represent a way out of the economic squeeze?

A report on farmer-based entrepreneurship from the Norwegian Agricultural Economics Research Institute (Veidal 2011) shows that decreasing profitability in volume productions, in addition to an increase in demands for farm tourism and quality food, is a driving force for farmer-based entrepreneurship. As this chapter will show, economy is an important factor for farmers in the choice of distribution channel.

“Freedom” is a key word for some farmers in this study when describing what they like about being a farmer. They talk about the freedom to control their own workdays on the one side and freedom from debt, on the other hand. Knut, a 52-year-old farmer speaks in favour of a situation where the farmer is more than just a producer of food and a slave to the bank: “That you don't have to think only about delivering certain amounts of milk and grain, and are being driven into a corner you don't know the way out of”, he says. Frank further describes this “corner”. He is a 42-year-old farmer who resides in the largest agricultural county in the Norway with 5300 farm enterprises, where milk and meat from cattle, swine and sheep represent the largest productions (Rogaland Bondelag 2014). Frank sells his vegetables and meat mainly through a farm-based box scheme, where the subscribers go to the farm to get their prepaid products. He explains that his level of debt is small enough for

him to decide what he wants to do, without having to involve the bank. This is not the situation for all, rather the opposite. Frank tells the story of a conventional large-scale farmer who was almost brought to tears when they discussed debt: “His problem is that he doesn’t have a choice. He needs 90 percent of his revenue to pay off his debt. The last 10 percent might remain, but if the prices of concentrate feed increases, or the diesel prices, even more of his income disappears. And what if the milk robot needs repair? You are a debt slave and do not have a choice” (Frank, 42).

Frank further explains that when the potatoes are in time for harvest, this farmer is given no other choice than to drive out on the fields with heavy machines, irrespective of weather conditions and even though the heavy machinery is harmful to the soil. Frank asks why this is so, and gives the answer himself: “Because he has to harvest at least 80 percent of the potatoes in order to pay for the tractor and this and that. He has millions in debt only on the equipment. With greater economic freedom it becomes easier to make the right agronomic decisions”, Frank concludes.

Economic freedom is not achieved only by choosing a new distribution channel. However, as the value chain is shorter in AFNs, because middlemen like wholesale and retail stores are removed (Bergflødt 2007), farmers are more likely to receive a higher product price. In addition, principles of economic independence and risk sharing between the shareholders within for instance CSAs create new opportunities for increasing income.

In a report on CSAs in Norway, Bjune (2003) refers to the CSAs in USA. Bjune explains the emergence of CSAs as a reaction to the rise in number of agricultural productions owned by large corporations, who prioritized maximization of profit and did not take ecological considerations. In addition, this system did not comply with the quality demands of consumers. Hence, CSAs emerged as a means of increasing economic revenues for farmers and guaranteeing a certain product quality for consumers. In a study of the Norwegian CSAs by Devik (2013), she finds that none of the CSAs has financial debt to any bank. This indicates that they can achieve a balance between income; the prepaid shareholder fee, and expenses; salaries and production costs. Thus, CSA is one example of an AFN that may create economic predictability and security for the farmers. CSAs “(...) represent a concrete example of the real possibility of establishing economic exchanges conditions by such

things as pleasure, friendship, aesthetics, affection, loyalty, justice and reciprocity in addition to the factors of costs (not price) and quality” (Kloppenborg et al. 1996: 37).

None of the farmers in my study are organized in a CSA, although several tell me they have considered its opportunities. All farmers are, however, engaged in either the Oslo Cooperative or a box scheme. These AFNs may also represent an economic security. One of the main principles of the Oslo Cooperative is: “Many farmers and food producers experience high pressure of price and thereby their income. This leads to negative social and environmental consequences, national and internationally. Through direct and personal contacts we secure as few middlemen as possible between the Oslo Cooperative and the producers” (Oslo Cooperative 2014, 4<sup>th</sup> principle). One of the subjects that may be discussed within these direct relations is the food price. In addition, the members’ insight into the farming processes creates an understanding for the rationale behind the prices. Frank gives an example of a customer who bought two lambs and paid a more than the asking price, insisting that the value was much higher than the price. The social and communicative aspects of agriculture that arises in AFNs can be understood in Kloppenborg et al.’s (1996) description of a moral economy. Food production is here embedded in human needs instead of market forces, and founded on social constructions and linkages between farmers, between farmers and consumers, and between consumers. This linkage is further discussed in section 4.6 about the food citizen.

For farmers participating in FMs, economic sustainability is an important motivational factor, according to the manager of FM in Norway, Aina Bartmann. It is not an option for all farmers to increase production volume. In her opinion, a multi-functional production strategy in order to get higher revenues per kilogram is therefore a strategy to survive as a farmer. “Potatoes are not only potatoes and apples are not only apples, Bartmann argues. “The more added value in a product, the higher price you get”, she explains, and continues by telling a story of how a woman who sold batter-based cakes managed to increase revenues due to small changes in the production. After changing to organic flour and selling them with organic sour crème and jam from other producers at the FM, the price increased remarkably. Another farmer connected to the FM went from a situation of almost giving up production to a situation where the farm gives an income to the whole family, Bartmann tells. The key was to diversify farm activities, with processing of goat milk and production of a great variety of goat milk products. Thus, by adding value to a product the price the

seller can receive increases.

As mentioned, productivity is one of the main goals in modernization of agriculture. However, high production volumes are often not equal to high income, as frequently communicated by agricultural authorities (Løkeland-Stai and Lie 2012). One example of an organic farmer presented in Devik (2013) illustrates the opposite. The farmer talks about his calculations regarding pig meat production. Instead of having 600 pigs and selling to a mainstream distribution channel, he could have 100 pigs and earn the same, if not more. This farmer runs a CSA, and if he sells the meat through the CSA directly from the farm, he can price the meat higher, in addition to cost savings due to reduction of middlemen. He could also save costs by using local on-farm feed resources and let the pigs grow in their natural pace. In comparison, now he has to feed them with concentrate in order to reach the weight and fat balance as required from the meat industry. This is a good example of what Ploeg (2008) calls repeasantization, where the farmer works towards autonomy and independence. Farmer who are engaged in AFNs can to a greater degree than other farmers decide the product prices, and thereafter the methods of production, for instance 100 local fed pigs instead of 600 pigs fed on imported feed.

In sum, as farmers experience high financial debt and an economically difficult situation, they become farmer entrepreneurs and engage in new food networks. Within AFNs farmers can add value and increase the product prices, and to a great degree they can become economically independent from the market prices in for example retail chains, or from the politically controlled prices in the large agricultural cooperatives. In addition they can have an open dialogue with consumers in the network about the economics of farming and create a mutual understanding of the costs of food. Although this might not get them out of an economic squeeze, AFNs are a means of improving the farm economy and represents an economically beneficial alternative. As such, the economic squeeze affects farmers' choice of engaging in AFNs.

## **4.2 The agricultural cooperatives**

Deeply rooted in the Norwegian agricultural tradition, the agricultural cooperatives play an important role for farmers' economic security and predictability. The agricultural cooperatives such as Tine, Nortura and Norske Felleskjøp<sup>1</sup>, were initiated in the middle of

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<sup>1</sup> Nortura SA is the cooperative for meat and egg, and also has the role as market regulator for these productions.

the 19<sup>th</sup> century, and have been important both for volume production and for maintaining agricultural production in rural districts. Through cooperation locally and nationally, the farmers found an easier way to the market and created a situation of more stable prices (Norsk Landbrukssamvirke 2014). The cooperatives guarantee picking up, processing, and paying for the milk, meat, or grain, in addition to distributing the products according to agreements with retail chains (Veidal 2011). As part of the agricultural politics, the cooperatives are mandated to function as market regulators, controlling potential over-production and applying different regulations in order to stabilize the prices. Although these large cooperatives aim to secure farmer income and stability in their deliverances, the structures upon which they are built does not give room for all production modes.

Thomas Holz describes the process of cooperative farming shortly as *cultivate – harvest – sleep*. As a grain farmer, for instance, you only have to care about the production and harvest, and a few days after the grain is picked up, money automatically comes to your account, or as a pig farmer you call Nortura and the animals are gone within a few days. However, farmers who do not comply with the bulk production standards may experience a lack of understanding and willingness from the cooperatives to cooperate. For some farmers it might be positive to “disappear” in the mass of large-scale production, but for farm-entrepreneurs the cooperatives have little room for products with special characteristics (Veidal 2011). Veidal refers to the agricultural cooperatives and claims that: “The market access in its current form is not suitable for producers who wish to be different” (Veidal 2011: 12). AFNs are important for farmers with a diverse production and volumes too small for wholesale, according to SLF (2014).

One of the farmers I interviewed is a grain farmer and the manager of a small organic grain cooperative. He explains his experience of meeting little understanding and willingness within the industrial grain cooperative to deal with the production of organic grain and old grain varieties: “I started to see the connections between production methods, grain varieties, nutritional content, consumers and health – the whole thing is a market of its own. You have to find this market and build it rock by rock. That is when the large actors aren’t the way to

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Tine is the largest milk cooperative in Norway. Tine has the role as market regulator for milk and is obliged to receive milk from all farmers, and deliver milk to all dairies included in a certain regulation system of prices (SLF 2013). Norske Felleskjøp is the cooperative for grain. Norske Felleskjøp consists of three independent cooperatives covering different geographical areas. One of the cooperatives, Felleskjøpet Agri is the most important distributor of agricultural inputs for grain production, and is owned by 43 000 farmers (Norsk landbrukssamvirke 2014a).



go at all”, the manager says. As a result, he and a group of other farmers started their own cooperative, where they grind, package, and distribute grain from the farmers who are members. One risk associated with this small grain cooperative is that the farmer must store the grain until customers are secured. “Entrepreneurship entails great risk. Instead of regular money transfers, the farmers have to store the grain until the cooperative can receive it. However, we pay more,” the manager explains.

The will to work as a salesman, in addition to farming, is important for farmers who choose to engage in AFNs. Being a salesman requires knowledge about the market. Nonetheless, within the system of the cooperatives the need for knowledge about the market situation is redundant, Veidal (2011) claims. Relying on a safe and steady distribution chain seems to have had an effect on the entrepreneurial spirit of farmers. Jan, a 49 year-old organic egg farmer, does not see a great potential for AFNs among his farmer colleagues and neighbours because: ”The salesman instinct is almost gone after three generations who have delivered their produce to the agricultural cooperatives. The cooperatives have dealt with everything, and as a farmer you do not have to think”, Jan says.

Veidal (2011) confirms that the engagement in AFNs entails a greater workload with marketing and sales for the farmers. Farmers have to be creative and act more independently of the guidelines from the agricultural cooperatives, in Knut’s words “think for themselves”. He says: “I ask myself to what degree do farmers today think for themselves? Do they allow the agricultural advisory services provided by Tine, Felleskjøpet, or Nortura, to tell them everything? You buy a bull’s sperm, seeds and potato tubers from a catalogue. You don’t think for yourself: is this best for me or for them?” (Knut 52).

Frank has a goal of 100 percent direct sales from the farm. For the pig meat, he sees no other choice because the production costs are almost four times higher than in a conventional pig farm. In spite of the pigs being fed by norm, they are more active as they can move in and out of the pig house, and need almost ten months instead of six months to be ready for slaughtering. “There is no room for organic pig meat within the mainstream distribution channels in this county. It will lead to an economic deficit because they do not pay premium price for the meat,” Frank says. He therefore sells the meat directly from the farm, offering different parts of the pigs, and customers can order in advance of slaughtering. The vegetables that Frank cultivates are incorporated in a farm-based box scheme system, where

customers pick up the boxes every week or every second week. “It is demanding. The workload is at least 50 percent more per kilogram meat, and in spite of the price per kilogram being higher, the economic benefits are not that high when I include the extra work” (Frank 42). The increased workload might not be appealing to all. Aina Bartmann explains that being a salesman at a FM requires spending time away from the farm and energy throughout the market day, as such representing a bottleneck for a potential increase in FM across the country.

Knut also reflects upon the increased workload he has by selling to the Oslo Cooperative, because he has to pack and transport the products himself. However, the payment is better and the social aspects make it worthwhile, Knut insists. The apple farmer Lars spends much time in autumn selling apples and apple juice. He produces large volumes and most of the apples are sold to a large retail chain, whereas some apples and apple juice are sold to box schemes, the Oslo Cooperative, and to some restaurants in Oslo. Lars elaborates: “Farmers are dependent on getting rid of large volumes. The easiest for a fruit farmer is to deliver to the fruit storage, a cooperative. That is the safest way that someone buys your products. The worst thing is to be left with products. In addition it’s a lot of work with AFNs. There is a risk in doing it differently”.

Thus, AFNs may entail increased workload, a willingness to work as a salesman and the challenge of selling large volumes. Large-scale producers are dependent on a standardized, stable, and efficient distribution channel, such as the agricultural cooperatives, wholesale, or large retail chains. Vegetable farmers are in a different situation than grain-, milk-, egg-, and meat farmers, as they are not connected to cooperatives. They are therefore more vulnerable to shifting prices and may turn to AFNs to secure their income, according to the agricultural advisor Thomas Holz. Lars puts emphasis to the importance of the large agricultural cooperatives and warns: “It is dangerous to weaken the agricultural cooperatives too much, then you get buyer’s market at once. Farmers have to travel around and offer their products directly to the customers. AFNs are not for all”. The previous employee in the FM, Siv Heia Uldal, explains the need for both AFNs and mainstream distribution channels like this:

I think it is good that you can choose to sell your products on a market and get a higher value, or you can focus on production in itself and not being that good in sales. Many don’t have talent for sales, yet they are extremely good farmers. And it is not always economically beneficial to attend markets. This depends on distance to the

market place, whether you have processing localities on farm, whether you have to hire people, and more (Siv Heia Uldal).

Nevertheless, although AFNs are not suitable for bulk productions that does not mean that industrial large-scale farmers cannot engage in one. Aina Bartmann gives an example of a farmer in the FM producing grain in large scale while processing and selling mulled wine from plums at the market. This farmer earns more on the sales at the FM than from the grain production, and uses this side production as a means for being able to continue being a grain farmer.

If there were a willingness within the large agricultural cooperatives to include non-standardized products, they would not be exclusive to such products in themselves. However, as the underlying structure of the agricultural cooperatives is based on industrial market logics, it is challenging to find room for alternative modes of production. Engaging in AFNs, however, does not apply to all farmers as it entails a different kind of workload than being only a producer of food.

### **4.3 Industrial market logics**

The Norwegian food market is dominated by a few and large retail chains (NOU 2011), consequently affecting how and what kind of food is produced, working relations at all levels, and the management of resources (Løkeland-Stai and Lie 2012). Quantity, uniformity and efficiency are requirements given from wholesale, retail chains and other actors in the mainstream food chain. In addition to bringing on further investments for farmers (Renting et al. 2003) it may, as within the large agricultural cooperatives, impede farmers from choosing different production modes and product development - where shall they deliver their produce?

The large-scale operations of an industrialized food market require certain standards with regards to quality and productivity that are not always in compliance with biological processes of farming and farmers' reality. Ole is a 65 year-old farmer who has been working with organic and biodynamic farming since the early 1970's. He was one of the first to deliver organic milk to the milk cooperative Tine. Today he produces vegetables for the Oslo Cooperative, restaurants and has a farm-shop. Ole experiences great satisfaction selling his produce to the Oslo Cooperative and from his farm shop, and says: "When you deliver to a wholesale it is only the standard that counts. Standard and price, and how the wholesale

can make it most efficient.” Ole has had to deal with the market requirements and explains the benefits with AFNs:

I struggled with producing the standards the retail stores demanded. Anonymously you sell lettuce one by one, first to a wholesale and then to a retail store. The customer only relates to the lettuce, not to you. If the lettuces are both small and big, but the price is the same, the customer is dissatisfied. The frustration over this standardization led us to sell everything directly from the farm, we reduced the production volume and I got a job on the side (Ole 65).

Another example Ole gives is from a farmer colleague producing large-scale organic vegetables. He tells me that the vegetables first were transported about an hour to a centralized packing plant, where the vegetables not complying with the standards were returned to the farm. Within AFNs, the quality perception ranges wider than only shape and size. In a report on the development of FM after four years in Norway, Jervell and Vramo (2007) give an example from a box scheme and quote one of the employees: “For us it is like this: if a producer have 700 leek we take it. If they don’t have tomatoes we go for cherry tomatoes” (Jervell and Vramo 2007: 58). It is a challenge for farmers to produce standardized vegetables. The apple farmer, Lars, gets apples every year with apple scab however; they still have a good taste and quality. The Oslo Cooperative and the box scheme that Lars cooperates with buy these apples for a decent price. Ole also tells me that the Oslo Cooperative buys chards that are too small for the large wholesale. Within the mainstream distribution channels these vegetables would be thrown away or used as animal feed. Food waste is estimated to be around 40 percent at retail and consumer level in industrialized countries and from production to the retailing level the number is even higher (Gustavson et al. 2011). Given that AFNs have room for the natural growth of agricultural products, an increasing number of AFNs in Norway and worldwide would contribute to reduce food waste.

When dealing with large volumes, standardized products are necessary. However, as discussed above, this standardization may exclude farmers who choose different modes of production, such as organic agriculture, quality products and small volumes. In the writings of the ecologist Richard Merill, the transition from agriculture to agri-business is addressed as a problem. Merill gave a warning that agriculture was being drained of its humanity, meaning that the values, human behaviours and relationships that once had been a part of agriculture, were disappearing, and called for bringing culture back in agriculture

(Gliessman 2007). The manager of the grain cooperative shares this view, and says: “I believe that agriculture as industry is completely misunderstood. Agriculture is a part of a culture; it is not an industry like any other economic industry. It is part of survival and a social structure you might say”. The salesman instinct is as intrinsic as the farming instinct in the 51 year-old manager and farmer. He has great passion for his profession and not only did he create an AFN that fitted with his own production of old grain varieties, but he also incorporated other farmers in the cooperative. As such, he created room for maintaining and developing organic production of old grain varieties, within a market interested in buying the products.

High volumes, uniformity, and low prices, are demands from the food industry, which do not seem to comply with all the different ways of farming: organic, biodynamic, or other kinds of small scale and entrepreneurial farm activities. However, as some retail stores include organic and quality products, one cannot conclude that the logic of the market industry is not compatible with natural variation and diversity in agricultural production. The sales of organic and small-scale quality products are increasing in Norwegian retail stores (SLF 2014). This conventionalization of organic products, where organic products become a part of industrial large-scale production and multinational food companies (Vittersø et al. 2005; De Wit and Verhoog 2006; Francis and Hodges 2009) is important for the availability of these products.

Nevertheless, the structure of retail chains, embedded in systems of negotiation, economic incitements, distribution systems, and short-term thinking, is challenging for the increase of small-scale, organic and quality products, according to a report on the power relations in the Norwegian food system (NOU 2011). The report further claims that the risk of investing in a relation with a retail chain is high for farmers with such products. In addition to working for change in the retail chains to include a greater diversity of products, alternatives such as AFNs must be created. Løkeland-Stai and Lie (2012) supports this thought by fronting a change in the power relations in the food market, and challenging the logic upon which this power is based. This can be done through the emergence of independent alternative production, - distribution and marketing channels adjusted to smaller actors.

Based on the reflections of the farmers in this study, one could claim that the AFNs to a greater degree have room for natural variations in production systems, in comparison to the

industrial food chain. As such, the logics of the market, in which the farmers with non-standardized products do not find their place, may support farmers to choose AFNs.

#### 4.4 The agricultural advisory service and government funding

In order to understand the main forces affecting farmers' economic and social situation, I have divided the Norwegian food system in the industrial mainstream system and the alternative system. Food systems are more complex than this, something that is described by Tregear (2011: 424): "In reality however, food systems rarely operate exclusively within these artificially circumscribed boundaries, they dip into, or borrow from, diverse logics over time, as studies within the governance and network theory perspectives, for example, demonstrate". Applying a simplified characterization of the different food systems, nonetheless, helps to describe the conflict between two different mind-sets, the alternative and the mainstream, and how this can restrain the extension of AFNs among farmers.

The agricultural advisory service, in Norwegian called *Norsk Landbruksrådgiving* (NLR), is an important agricultural organization. NLR have 39 advisory units around the country, and give advises to farmers based on local research and knowledge (NLR 2014). Although they have some advisors who are specialized in organic production, Frank explains that there is a lack of knowledge within NLR about the mind-set upon which organic farming is based. Frank calls for a more active advisory role within the organization for organic food and agriculture, Oikos – Organic Norway, and says that they show work for taking over the organic advisory service. Oikos is founded on a holistic and organic mind-set and one could claim that this makes them more equipped to understand and deal with the challenges of farmers with a shared mind-set. Frank reflects upon the different roles within the agricultural service, and says:

The knowledge is not well enough founded in a holistic mind-set, and I feel it is difficult to include this in the NLR system. Once we were advised to cultivate a potato variety that was not compatible with fertilization from animal manure. I wonder what went wrong when the advisor in agronomy suggests cultivating something that grows best on chemistry? (Frank 42).

In this understanding we may see NLR as part of the mainstream food system, in which a conflict with the alternative mind-sets arises. Under the umbrella of the alternative food system we may place organizations such as Oikos – Organic Norway, the Biological-dynamic Association and the Norwegian Farmers and Smallholders Union. These have

taken an active role in giving courses, arranging study trips and giving information to farmers interested in alternative production and distribution, however not as systematically as Frank desires. Perhaps a shift in roles between NLR and these farmer organizations, giving the farmer organizations a more active role in the advisory service within the organic, small-scale, and alternative field, would prove more beneficial for the farmers and stimulate the development of AFNs.

The farmer Jan describes another example of how NLR, neighbour farms, and other agricultural actors within the mainstream system, oppose farmers who choose alternatively. For Jan, it took a lot of courage to make choices different from the recommendations of the agricultural advisory service and other farmers. He puts this in perspective when telling the story about choices regarding his own production. In order to increase efficiency and sales he was recommended to start with battery hens instead of free-range, but instead he was the first farmer to build an aviary in Norway. He explains the situation like this:

You should have heard all the hardship – *now the hens will pick on each other*, they said. Almost no one thought it would work. I borrowed five million and built something no one believed in. Then you have to have courage! I was the first in Norway to feed the hens with oat. Oat has more linoleic acid which makes them calmer compared to wheat. *But you can't feed with oat!* I heard. Today everyone feeds oat. You have to dare to step out of the herd.

Norms regarding pesticide use from agronomic education programs, advisory services and other farmers also influence decision-making processes regarding the production. Jan continues:

You think you have to spray with pesticides. The generation who have used pesticides since the days of the war believes that you get higher yields and no diseases. I was taught this at the same agricultural college. It is the same thing at meetings too – they invite a researcher showing it's like this and like that. The forces against organic agriculture are strong, with Monsanto and the large international corporations controlling genetically modification and everything. It is propaganda we get – we get in information in the mail from Norsk Hydro<sup>2</sup> about some new micronutrient they have added, so the plants won't get sick, indicating that this of course has been a problem. We get fed with this all the time. I didn't think it was possible to cultivate wheat without spraying - *You must spray! If you don't it gets infested by fungi!* I was told. You get fed with horror scenarios, Jan complains.

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<sup>2</sup> Norsk Hydro, or Hydro Agri, was the main producer of mineral fertilizer in Norway. They sold the production of fertilization to Yara, now being the leading company within mineral fertilizers in the world (Yara International 2014).

The agricultural advisor Thomas Holz confirms that it may be difficult to receive information about alternative production and distribution methods from the NLR. Holz says that one of the challenges is that farmers are on their own and have to figure out how, for instance, to open up a farm-shop. Important aspects for increasing sales are lighting in the shop, shelf placement, design and marketing, all aspects unknown for many farmers. This lack of knowledge regarding sales and marketing may restrain the success of farmers who has chosen to distribute their products via AFNs. The organization of NLR is member-based, meaning that the activities NLR perform are based on the needs of the members. Thus, there is a potential of NLR to relate their advisory service to inform about AFNs if the members requires so. Holz, however, explain that due to the lack of knowledge among farmers about the opportunities beyond the agricultural cooperatives and other mainstream distribution channels, the member farmers will not demand advising about AFNs. As an example Holz asks, if a farmer does not know of the importance of shelf placement and lighting in a farm-shop for the increase of sales, how can he demand information about it? A more clear role as an advisory service, not only on production, but also distribution, would benefit farmers who wish or are forced somehow, to change their farming structures.

It is obvious that the responsibility of the production and distribution on a particular farm lies with the farmer. He or she has to make choices based on interest, needs, and resources. In the organic vegetable business organic farmers complain about the lack of willingness within wholesale and retail chains to sell organic vegetables. This situation makes Thomas Holz ask: why isn't there an organic wholesale owned by 500 organic vegetable producers? He claims that an innovative and creative way of thinking is missing among farmers. One of the reasons for this situation is perhaps farmers' reliance on the agricultural cooperatives and the loss of the salesman instinct, as discussed in section 4.2.

Norwegian AFNs, such as the FM and the Oslo Cooperative, have emerged and developed on the basis of what Kloppenburg et al. (1996) describe as *cooperative production among farmers*. By the means of different marketing strategies farmers strive to meet demands from a growing conscious consumer mass. This is also what Thomas Holz request above. According to Aina Bartmann, most FMs around the country are organized as cooperatives, making decisions together, and taking ownership. The experience from ten years of FM in Norway shows that this way of organizing FMs is the most successful. The FM cooperatives



now function both as social and professional meeting places. Ole also believes in organizing economic activities in cooperatives and within new networks, and says:

I believe in things that grow from the bottom. A lot of advising is expensive and often doesn't have the same effect. Helios<sup>3</sup> grew in that way, and the Oslo Cooperative was also started by a group of strong women. There is a power in this. The organic agriculture has grown in this way, from almost nothing into something that is considered important. When I started, there weren't any subsidies; it was more something we felt we had to do. Maybe it has to be more like this: the agricultural politics can sail its own sea, because this is what we have to do (Ole 65).

If change is needed and wanted, it might not be enough to wait for farmers or consumers to take action. As we have already learned, farmers are embedded in a political and economic agricultural system and are in many cases locked in the same structure that created the difficult situation to begin with. Interventions from governmental organs and interest organizations may be necessary, as Renting et al. (2003: 409) proposes: "If we are witnessing the emergence of new rural economic relations out of the deepening crisis of industrial agriculture, it would seem that new institutional practices and interventions will be needed both to stimulate and to foster these diverse trends".

Government funding programs for rural development and "value making"<sup>4</sup> exist today with the aim of stimulating new economic activities and to increase profitability on farms (Veidal 2011). Siv Heia Uldal explains that one bottleneck in the process of engaging more farmers to FMs is the lack of funding of the leader of the local markets, who are assigned the role of recruiting farmers to the FM. A report by Jervell and Vramo (2007) that evaluated the FM after four years in Norway, shows that the local market leaders are funded through the state-owned company Innovation Norway, and in some cases in combination with local enterprises. The report further states that future funding is one of the most important challenges for the leaders of the local markets, and Jervell and Vramo ask: "Will they continue to receive state funding or will they become economically independent?" Whether the local FMs become independent or continue as before, the employment of local market leaders seems crucial in order to maintain the member farmers and to and recruit more farmers.

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<sup>3</sup> Helios was the first distribution channel for organic and biological-dynamic products in Norway, established in 1969 (Helios 2014).

<sup>4</sup> In Norwegian: *Bygdeutviklingsmidler* and *Verdiskapingsprogrammet for mat*

On the one hand government funding may support the existence of, and stimulate the development of AFNs, whereas on the other hand robust solutions may also “emerge from the bottom” as suggested above by Ole, and allow for new forms of organizing food production to develop independently. One may argue, as Francis and Hodges (2009: 19), that: “Future success will depend on re-establishing linkages of farmers and consumers and the credibility of a system that depends on trust and knowledge rather than regulation and control to rediscover the goals of organic food systems that can provide both nutrition and food security at the local level”.

In order to arrange for entrepreneurial activity among farmers there is a need for information and knowledge. This can be found in part in agricultural organizations and institutions. However, as agricultural organizations and institutions are affected by a shifting political landscape, finding robust solutions for cooperation and communication between farmers and consumers is important in the long run.

#### **4.5 The social farmer**

AFNs are about more than the production and distribution of food. Hendrickson and Heffernan (2002:361) describe AFNs as follows: “To be effective, these alternatives must be personalized and sustainable and propose a new vision, a vision of authentic social, economic and ecological relationships between actors in the food system”. This personalized character was in the previous section proposed as a long-term solution for farmers. In addition it holds the potential of enriching the social life of farmers.

Fjeldavli and Bjørkhaug (2000) report loneliness among Norwegian farmers, especially due to lack of colleagues. We may also see loneliness as a consequence of the disconnection between farmer and consumer described in chapter 2. In the mainstream industrial food system the farmer is a producer of food, alienated from the rest of the value chain. A study of farmers engaged in the FM in Norway shows that motivations for this engagement is both the social and the economic aspect, although the first is of more importance than the latter (Veidal and Flaten 2011). Aina Bartmann confirms these two reasons as the most important for engaging in a FM. Knut, a farmer with deep roots in the biodynamic tradition reflects upon this situation:

Many farmers struggle with loneliness and sit alone on their farm. In the old days there were large families, but today the wife has to work outside the farm in order to

make enough money. I can't imagine many being satisfied with that situation. Meanwhile, there is a social environment connected to biodynamic farms and direct contact with the customer. The conventional farmers have contact with advisors in Tine, Felleskjøpet and Nortura, and the bank. We are engaged in off farm sales, restaurants, CSAs and the Oslo Cooperative, and interested in creating relations so that you as a farmer don't just disappear.

The 56 year-old farmer, John, has a small but diverse farm in the outskirts of Oslo. He also emphasises the importance of creating linkages, in his case to the nearby Steiner school in addition to direct sales to the Oslo Cooperative. His farm offers an education program for students where they participate in farm work in the forest, sowing, weeding and harvesting in the vegetable garden, extracting honey, and participating in the slaughtering process. A diversification of the farm activities is not only a way of diminishing loneliness but in addition economically sustaining the farm. The manager of the grain cooperative describes well the elementary tenets of farmer-based entrepreneurship: "The farm is the point of departure for everything I do. The grain mill generates income; participating in the project *Living Soil* generates income, as do the courses in personal development we have at the farm. You have to use the resources for all they are worth, together with your interests and your passion," he says.

AFNs reverse the social disconnection in the mainstream food system and some AFNs connect people and land better than others. For instance, in a CSA, the participation in both cultivation and decision-making is present, compared to a farmer selling his produce at a FM. Nevertheless, they all share the social aspect, communication and closeness between farmer and consumers in one way or another. According to the manager of the grain cooperative this is an aspect most natural. He says:

A relation to the food we want is natural. It is a part of us, a part of the understanding of the whole interaction – the organic cycle, life, and death. If we are removed from it we get a distance, a separation from the whole. Then we lose our grounding, the understanding of who we are, where we come from and where we are going. In my opinion we have to reintroduce eco-villages and that way of thinking. There are many different ways, but I think that this is the way of thinking structure of societies in the future.

Through AFNs such as direct sales from the farm, consumers are able to give direct feedback to the farmers about their products and get a different buying experience. For Frank this is important: "I like it very much. It is half of my income because the feedback

you get is something to live on for a long time. The pleasure and the extra value added are not only good for me but also for the customer. They get a better product and a better buying experience. We sell something more than just food”, Frank says.

Almost all of the farmers in this study shared this experience of connectivity to the consumers. The personal contact creates a relationship based on trust, the farmers enjoy selling and showing a product they are proud of; they get direct feedback, and experience great satisfaction in meeting the customers. Since the founding of the Oslo Cooperative in 2013, Ole has been engaged. Through this cooperation he has increased both the economic and social capital in his farming and is planning to increase the production for the following year. “For my part, I experience a deep satisfaction meeting those who want the produce and to be able to talk about the produce and about what we do”, Ole expresses. At the local farm level, a disconnection between farmer and consumers may create a feeling of disrespect in the consumers for the agricultural produce and the workload that lies behind it. Knut sells vegetables to the Oslo Cooperative and, describes a relation based on trust and respect like this: “There is respect for each other, respect for the food, and respect for everything. That feels very safe”. This is in spite of no guarantee for deliverance and a greater workload with packing and transporting the vegetables. “The insecurity is there still. But if we don’t get to sell everything, it is not because the Oslo Cooperative doesn’t respect us. They do everything they can to sell it and to avoid throwing it away”, Knut confirms.

A social dimension is clearly present in AFNs, a dimension that is not very common within the mainstream food system. AFNs or other on-farm activities may diminish farmer loneliness and the communication with consumers may enrich the social life of farmers. Bridging the gap between consumers and farmers and the social value it represents for the both parts, is a supporting force for the development and existence of AFNs.

#### **4.6 Food citizens**

For farmers to make changes in their practice there must be a market of consumers with purchase power and a will to buy the products. Hence, exploring the potentials of AFNs among farmers must also involve exploring the potential interest among the consumers because they both depend on each other.

Socio-demographic changes, such as consumer trends and demands, have a large impact on the potentials for AFNs. Consumer trends are in continuous change, and AFNs arise due to

increasing consumer consciousness related to healthy and environmentally friendly foods according to Renting et al. (2003). The head of research at the National Institute for Consumer Research, Eivind Stø, believes that people in Norway will spend more money on quality foods in the future (Barstad and Winsnes 2013). Knut argues that the consumers are the ones with greatest power. Ole stresses the importance of the existence of AFNs in order for farmers to be able to choose this way of relating to the market: “It is fantastic what is happening with the Oslo Cooperative. People go together and say *this is what we want*. Farmers often have enough work with being producers of food”, he says.

There are different terms for conscious consumers. One of them is *prosumers*. Alvin Toffler first coined this term in his book *The Third Wave* (1980), where prosumers are referred to as people who produce what they consume. In the agricultural revolution, what Toffler calls the *first wave*; all were prosumers, whereas in the industrial revolution or the *second wave*, production and consumption were separated. Toffler’s prosumer accounts for all production sectors, however the term has been used actively within different food movements and in a more symbolic manner. Consumers who choose not to support the power relations in the agro-business, for instance through visiting FMs are prosumers, according to Aina Bartmann. Bartmann says she experiences an increase in consumer demands, and is certain that FM can attract and create prosumers.

Another term is *food citizen* or *food citizenship*, which is defined as: “the practise of engaging in food-related behaviours that support, rather than threaten the development of a democratic, socially and economically just, and environmentally sustainable food system” (Wilkins 2005:269). As illustrated in chapter 2, the industrialized food system challenges sustainability at all levels, and consumers hold the ability to change this.

The importance of food citizens to create change is explained by Terragni et al. (2009: paragraph 9): “By participating in forms of alternative food consumption people may contribute to defining the agenda of the relevant problems that our society faces and have to cope with, as well as expressing their values and aspirations”. As food citizens need AFNs, AFNs need food citizens in order to exist and develop. However, giving all AFNs the attributes of being able to change consumer consciousness and actions is too general, and within the characteristics of different AFNs, not all represent active involvement. Torjusen et al. (2008) claim that in order to provoke changes in the food system an AFN must be

more than a distributor of food. It has to offer arenas for participation and learning for the consumers, such as field trips to farms and newsletters with information about the products and the farmers. We have learned that box schemes and the Oslo Cooperative offer these arenas.

AFNs offer different ways of creating change, not only through active participation. Aina Bartmann describes the FM as a part of a counterculture because the power is taken from the agri-business and given back to consumers and producers. She explains: “We do politics through what we do, not through resolutions or being a part of an organization with many meanings. To quote one of the leaders at a local FM: *I feel that one successful Farmer’s Market is much more important than the GATT/WTO demonstrations I have participated in*”.

AFNs are still young in Norway, and for AFNs to expand among farmers there is a need for food citizens as well as engaged farmers. One interesting mechanism in this development is how one initiative supports another. According to Aina Bartmann, a wide variety of initiatives may empower each other. In a newspaper article about the Oslo Cooperative by Sagmo (2013) Bartmann comments: “The more consumers with direct contact with the farmer and insight into where and how the food is produced, the better”. She further claims that initiatives such as the Oslo Cooperative contribute to reinforcing the development of the whole agricultural sector. In my interview with Aina Bartmann she elaborated on this when telling about the opening of a Farmer’s store in the fall of 2013. The Farmer’s store is owned by 21 of the producers within the FM system and is located at a food court in the capital of Norway, Oslo. Compared to the regular FM that only takes place over weekends during part of the year, the store sells products from the FM all week throughout the year. Bartmann claims that instead of undermining the FM, as first assumed by many, the opening of the Farmer’s store has increased sales at the markets. Given that the sales in one AFN affects the sales in another, we may assume that the more AFNs, the more interest in these distribution networks will arise among both consumers and farmers.

Devik (2013) also describes how new solutions can initiate changes in consumer habits with regards to food:

If new products and other practices of production are made visible in the market it may also change consumers’ understanding related to aspects of food production and what products we are conditioned to produce. This may potentially change consumer

habits to be driven by other motivations, such as norms and values embedded in an ecological robust understanding of food productions (Devik 2013: 15).

Jervell and Vramo (2007) also show that AFNs such as the FM can make products of different quality and character more known among consumers and as such make it more common to choose these products, both within the AFNs and if available in retail stores.

In spite of a rise in consumer interest in AFNs and the products found within the networks, the number of AFNs for organic, small-scale, and quality food remains little. A few large retail chains dominate the mainstream food market. John reflects upon this with a pessimistic undertone. He says: “In the future people must become more conscious and ask *who are those who produce the food I want to buy?* This must be the future even though it doesn’t look like it. In the system we have, with large retailers and wholesale you don’t talk about how the farmer is doing, how he produces the food, and how the quality is”. An increase in AFNs alongside with more food citizens holds the ability to reinforce the development further, making AFNs more common among consumers and creating even more food citizens.

## 5 Conclusion

The industrialization of agriculture, with productivity as the main goal, has led many farmers into an economic squeeze and disconnected them from those who eat the food. Instead of closing down the farm, many farmers have diversified the farm activities and engaged in AFNs, in order to sustain the farm economy. Because small-scale, organic and quality products do not always comply with the market standards of the large agricultural cooperatives, wholesale and retail chains, AFNs constitute an important option for the sales of these products. Although engaging in AFNs entails extra workload as a salesman and the farmers must take care of the distribution logistics, for the farmers interviewed for this study this balanced out with the increased product prices they received, and the social dimension of AFNs they enjoyed.

One of the most important motivations for the farmers to engage in AFNs is the increased economic value their products gain in AFNs. Although engaging in AFNs may not get farmers out of the economic squeeze, they are an important means for improving the farm economy and to make farmers more economically independent. Another motivation, as important as economy, is the connections and cooperation with the consumers in the networks. In addition to a more social farming style, the open dialogue with the consumers can from the consumers point of view create an understanding of the costs of food, and as such prove beneficial for the farmer. The farmers in this study present AFNs as a robust solution, and they suggest certain measures to be undertaken in order to increase the outspread of AFNs in Norway.

Knowledge and information about AFNs and the social and economic possibilities they represent is crucial for their expansion to more farmers. One of the suggested measures is to increase the knowledge about AFNs within the agricultural advisory service and non-profit agricultural organizations, and systematically give information and guidance to farmers about the variety of opportunities of food distribution and networking. Stable economic support, for instance for the leaders of the local FMs, is another measure that may further advance the expansion. As agricultural organizations often are affected by a shifting political landscape, the importance of cooperation between farmers and consumers must not be undermined. AFNs must develop on the basis of demands from consumers and farmers



and be grounded in robust economic solutions in order to succeed. AFNs offer a diversity that may be adapted by all kinds of farmers with different resources and requirements.

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## Appendix 1 Information document

### Forespørsel om deltakelse i forskningsprosjektet

*"Exploring Potentials for Alternative Organic Food Networks in Norway  
- the farmers` perspective"*

#### **Bakgrunn og formål**

Formålet med prosjektet er å undersøke potensiale for videre utvikling og utbredelse av alternative økologiske matnettverk i Norge, sett fra bønders perspektiv. Gjennom intervju med utvalgte bønder og nøkkelpersoner vil jeg fokusere på hvilke krefter som påvirker bønders valg av salgskanal, både drivkrefter og hinder. Litteraturstudie om alternative matnettverk nasjonalt og internasjonalt vil også hjelpe meg å forstå hva som påvirker utviklingen.

Prosjektet er en mastergradsstudie ved Institutt for plante- og miljøvitenskap ved Universitetet for miljø- og biovitenskap.

Utvalget for prosjektet er bønder som er tilknyttet samvirket Oslo Kooperativ, altså bønder som har valgt å selge sine varer gjennom alternative matnettverk. De er valgt basert på personlig kjennskap gjennom arbeid i organisasjonen Oikos – Økologisk Norge og Oslo Kooperativ, og valget av de ulike er basert på vurderinger om relevans for prosjektet. I tillegg består utvalget av enkeltpersoner knyttet til organisasjoner og instanser i landbruket.

#### **Hva innebærer deltakelse i studien?**

Deltakelsen innebærer intervju på omtrent to timer per deltaker. Spørsmålene vil omhandle gårdens historie og produksjon, hvilken motivasjon som ligger bak driftsform, valg av salgskanaler og samarbeidsformer. Spørsmålene vil også omhandle bondens tanker og synspunkt knyttet til tema som økologisk landbruk, omsetning av økologiske varer i Norge, det industrielle matsystemet samt globale og lokale utfordringer knyttet til matproduksjon. Andre deltakere fra alternative matnettverk vil få spørsmål knyttet til opprettelsen, utviklingen og fremtiden til den respektive organisasjonen/foretaket, samt drivkrefter og hindringer for utvikling av alternative matnettverk.

Data vil registreres på lydopptak samt skriftlige notater på privat datamaskin.

#### **Hva skjer med informasjonen om deg?**

Alle personopplysninger vil bli behandlet konfidensielt. Det er kun jeg, samt mine to veiledere som vil ha tilgang til personopplysningene. Lydopptak vil ikke blir brukt videre når prosjektet er avsluttet.

Miljøet for økologisk landbruk er lite i Norge, og bruk av beskrivelser av enkelte deltakere vil kunne føre til gjenkjenning. Beskrivelser som kan føre til gjenkjenning av de deltakere som ikke samtykker til det vil bli utelatt.

Prosjektet skal etter planen avsluttes 15.mai 2014. Alle lydopptak vil bli slettet ved prosjektslutt.

### **Frivillig deltakelse**

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli anonymisert

Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med Helene Austvoll, 98 03 53 30.

Studien er meldt til Personvernombudet for forskning, Norsk samfunnsvitenskapelig datatjeneste AS.

## **Samtykke til deltakelse i studien**

### **Jeg samtykker at**

- opplysningene jeg gir brukes til forskning i forbindelse med Helene Austvoll sin masteroppgave
- intervjuene kan tas opp på lydbånd
- informasjonen jeg gir anonymiseres med mindre annet er ønskelig, men at min posisjon vil kunne spores ved min tilknytning til en organisasjon eller gårdsbruk.

Kryss av om du ønsker/tillater at ditt navn brukes i oppgaven og du dermed ikke anonymiseres

Ja

Nei

Jeg har mottatt informasjon om studien, og er villig til å delta

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-

(Signert av prosjektdeltaker, dato)

## Appendix 2 Interview guide farmers

### Introductory questions

Fortell om gården/virksomheten (historie, produksjon etc etc)

Hvordan er kretsløpet på gården (fôrdyrking/innkjøp etc)?

### RQ 1: What is the motivation behind organic farmers` choice of distribution network?

Kan du fortelle om valget du har gjort med å drive økologiske/biodynamisk?

Vil du si at du er en pragmatisk (finansielle behov, støtte fra staten etc.) eller ideologisk bonde i valget om å drive økologisk/biodynamisk?

Hva er det du liker med å være bonde? Hva vil du si er drivkraften din? Kan du si litt om målene dine som bonde?

Kan du si noe om markedssituasjonen for økologiske bønder? Er det enkelt å selge varene?

Hva er utfordringer knyttet til dette?

Hvor selger du dine varer? Hvor selger du mest?

Kan du si litt om fortjenesten ved å selge igjennom alternative salgskanaler i forhold til grossist og andre store aktører?

Kan du og din familie leve av gården?

(Du driver jo relativt stort, kunne du gjort gården mer lønnsom ved å ha mindre produksjon og heller selge til høyere pris gjennom AFNs? )

Kan du si noe om følelsen du har når du leverer til de ulike kanalene? Er det annerledes når du vet hvem som kjøper maten?

Mye av litteraturen som omhandler AFNs hevder at nærhet til jorda, dyra, naturen og bonden fører til et mer bærekraftig system. Men hva med konvensjonelle bønder, de fortsetter å sprøyte drive stordrift etc., er de ikke nære nok? Hva tenker du om dette?

Tror du vi idylliserer forholdet mellom bonde og forbruker? Hvorfor er forholdet til forbruker viktig for deg?

### RQ 2: What are the driving and hindering forces for the emergence and development of AFNs

Kan du si noe om kravene til dine varer fra konvensjonelle salgskanaler/grossister? Hvordan påvirker det valg av salgskanal?

Hvorfor tror du at ikke flere bønder selger til alternative kanaler? Kan det ha noe med at det er få som tenker at med mindre volum men høyere pris blir inntjeningen større og mindre arbeid?

Kjenner du til andelslandbruk? Har du noen gang vurdert den modellen? Hvorfor/hvorfor ikke?

Hva med Bondens marked? Er det en attraktiv markedskanal for bønder? Hvorfor/hvorfor ikke?

Hvilke tanker har du gjort deg rundt kooperativ-modellen? Altså at forbrukere er med i et arbeidende fellesskap og har tett kontakt med bønder, som er et alternativ til matkjeder og større aktører?

Har du noen tanker om hva som er rettferdig pris for en landbruksvare?  
Finnes det salgskanaler i dag som gir rettferdig pris?

Tror du bønder forholder seg til eksterne kostnader av jordbruk? (forurensing, dyrevelferd etc) Føler du at du som bonde har et ekstra ansvar for å forvalte naturens ressurser på en bærekraftig måte?

Har du hørt om ”konvensjonalisering” av økologisk landbruk? Noen studier viser at økende spesialisering og intensivning av økologisk landbruk kan påvirke negativt ryktet til og markedet for økologiske varer. Har du noen tanker om det?  
Må man drive stort for at jordbruk skal være lønnsomt?

Hvordan henger økologisk/biologisk-dynamisk landbruk og alternative salgskanaler sammen?

Hva tror du må til for at økologisk landbruk skal overleve og vokse i Norge?

Hvordan vil du si at Norsk landbruksrådgivning legger til rette for alternative matnettverk?  
Hvor ligger ansvaret for å skape et bærekraftig landbruk?

Hvilken betydning har landbrukssamvirkene (Tine, Nortura, Felleskjøpet) for deg som bonde?

Har forbrukere et ansvar når det gjelder bærekraftighet? Hvordan opplever du interessen fra forbrukere til direkte kontakt med bønder og til økologiske/biodynamiske råvarer?

### **RQ3: What is the potential among farmers in Norway for further development of AFNs?**

Mener du det burde finnes flere AFNs? Hvorfor? Krefter som holder igjen utviklingen av?  
Tror du OK og andre AFNs har vekstpotensial i Norge? Hva står i veien for at det skal kunne skje?

Hvis AFNs er lønnsomt og gir en merverdi til bonden, hvorfor tror du at ikke flere jobber på den måten?

Tror du alternative salgskanaler kan bidra til et mer bærekraftig matsystem nasjonalt og internasjonalt?



## Appendix 3 Results e-mail correspondence with box schemes

Location of BS	Short description	Number subscribers	Number farmers/suppliers	Number Norwegian farmers/suppliers	Number farmers only delivering to BS	Experience if potential
South	Delivers organic vegetables, fruits, mushroom, bread and dry products to private households, schools, kindergartens and other businesses.	2400 (appr.170 weekly deliveries)	6 farmers and one French whole sale	6	No answer	Increasing. People from other areas also ask for BS. Almost no marketing, only through people and Facebook. Many ask for organic eggs and meat that is difficult to find in stores.
South West	Weekly deliveries of organic fruits, vegetables and eggs to private customers, business, schools, cantinas and restaurants.	Approx. 150	12	8	None	Believes it will sink, and the demand will be directed towards pre-packed foods and recipes. When retail stores get a good variety of products our solution becomes more and more redundant. Experience that when the kids move out the boxes aren't that attractive, in addition they are not compatible with the expectations of many regarding amount and price. As long as the customers have to buy other fruits and vegetables in the store this concepts isn't sustainable. Perhaps it is easier to succeed in the districts where the stores are located at further distances.
Middle/North	Deliveries of organic fruits and vegetables to private customers, business, kindergartens, cantinas and others	400	35	32	None	No answer
North	Buys boxes from another box scheme, products from an organic whole sale	80-90	Same as Middle/North	Same as Middle/North	Only a few, especially one with carrot	In 2013 have had 100 percent increase in subscribers and in general more positive feedback and enthusiasm. After six years with no surplus this is very positive.

	called Norganic, and some vegetables from local producers. Ambitions to stimulate to more local organic producers.					The reason for why they have kept it going is the positive feedback and the influence on the retail stores now selling more organic food. The motivation is high to reach out to farmers directly and be able to guarantee for high revenues.
Oslo	Organic vegetables and fruits, dinner boxes and dry products to private customers and businesses	Approx. 1500	Cooperation with one vegetable whole sale for all imports, and for all Norwegian products. They take care of logistics, storage etc. In total 4-5 farmers.	4-5	None	Experience that box schemes is valued by consumers, especially in busy days it is nice to get the food delivered at your doorstep. The last year there has been a doubling in subscribers. In Denmark and England this way of buying food is much more common.
South West	Organic vegetables and fruits delivered to private customers	At the moment 24	1 main supplier and 4 local producers	At its highest the number is 10	None	No answer



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