



Master's Thesis 2021 60 ECTS

Faculty of Bioscience

Cultivating Food Citizenship: An exploration of membership in Norwegian Community Supported Agriculture (CSA)

Sydney Hnatiuk

Masters of Science, Agroecology

# **Abstract**

The dominant food system is ripe with challenges which are contributing to the degradation of social and natural systems around the world. Transformative actions are required to amend the current situation, and actors all along the food system have a role in cultivating these changes. This study investigates an opportunity for the individuals to participate in food system transformation through membership in Community Supported Agriculture (CSA). Norwegian CSAs are developed around principles of closeness and familiarity with one's food and its production. As such, members are highly engaged in their CSA socially, democratically and through mandatory and voluntary labour. This study seeks to understand how this level of engagement in a CSA might facilitate the adoption of practices consistent with food citizenship. This was done through a combination of participant observation on four CSAs and interviews with actively engaged members from each. The conceptual theory of food citizenship and social practice theory were applied to tease out relevant practices and to better understand how they were cultivated and maintained. The study found that members of the CSAs had thought about and reflected on challenges within the dominant food system with which they were unsatisfied. Additionally, members commitment to CSA was motivated both intrinsically and extrinsically as they sought to find an alternative food acquisition method from the dominant food system. Four relevant member practices engaged which either embodied the spirit of food citizenship or contributed to cultivating its practice. Those practices are; redefining roles within the food system, acquiring new knowledge and skills, cultivating communities and enacting relational reflexivity. The study found that Norwegian CSAs were effective at cultivating food citizenship to the degree of the local food system but were limited by seasonality. As such if CSAs aim to inspire and cultivate a greater depth of food citizenship in their members, practices which encourage year-round connections within the community and regional food system would need to be developed. This study may aid in our understanding of how practices consistent with food citizenship are cultivated on CSAs and help guide the future development of CSAs as leverage points for food system transformation.

# Acknowledgments

Twelve years ago, in a community hall in Calgary, Alberta I approached a man wearing a shirt printed in colourful vegetables and asked him if I could be a member of his CSA. He enthusiastically said yes and gave me his email address. This moment not only triggered 8 years of dedicated membership at Eagle Creek Farm, but likely the trajectory of my education and career as my obsession with food and farming rooted in and grew unhindered. 10 years later, I found myself walking into a classroom at NMBU in my own colourful vegetable shirt, ready to embark on the next phase of my learning and personal development. That day my class visited our local CSA, Dysterjordet Andelslandbruk, and the path of my degree was set right there in that soil.

Researching and writing about Norwegian CSAs for the past year has been my ultimate pleasure but I couldn't have done it alone. I'm incredibly grateful for the guidance of my advisor Geir, who constantly challenged all my assumption and ideas in both thesis and life. My diehard crew of Agroecologists, Amélie, Synneve, Synneva and Naomi who stuck out the Covid-19 pandemic in Ås for over a year, surviving rolling lock downs, quarantines, sometimes hugging and sometimes not, as we navigated this wild year both externally and internally. My roommates and adopted family Elle and Narta who encouraged me to go outside every moment the sun peaked through the clouds and with whom I interpreted the strangeness of life from the kitchen floor. My partner Ahsan who was instrumental in the development phases of this research and who spent the year reminding me of my intelligence and value when I would begin to lose sight of it myself. To all of the participants in my study, managers and farmers of the CSAs and most of all Katinka and Grzegorz who took me into their home and onto their farm, where we engaged in endless conversations about growing food for community, thank you all, this research was truly a work of cocreation.

I would also like to thank my first CSA farmer John, who exposed me to the possibility of consumer/producer solidarity and set the stage for my relationship with food.

# Table of Contents

ABSTRACT	1
ACKNOWLEDGMENTS	2
TABLE OF CONTENTS	3
1.0 INTRODUCTION	4
Food System Transformation CSA in Norway	5 10
2.0 METHODS	14
2.1 Farm Selection	14
2.2 Data collection methods	16
Participant Observation Semi-structured interviews	17 18
2.3 Data Analysis	19
2.4 Theoretical framework	20
Food Citizenship Social Practice Theory	20 23
3.0 RESULTS AND DISCUSSION	25
3.1a Challenges which motivate participation in CSA	25
Unacceptable environmental implications of the food system	25
Barriers to exercising food sovereignty	27
Intellectual and physical disconnect from food Concern for security of food	29 31
3.1b Motivating the shift from consumer to food citizen	34
3.2 The practice of food citizenship	37
Re-defining roles within the food system	38
Acquiring new knowledge and skills around food	42
Cultivating Communities	46
Enacting relational reflexivity	49
3.3 Methods Discussion	53
4.0 CONCLUSION AND IMPLICATIONS	56
5.0 RESOURCES	59

# 1.0 Introduction

Modern food systems are ripe with flaws and inefficiencies, from production and processing to distribution and consumption, food systems are contributing significantly to the degradation of natural and social systems around the globe (Willett et al., 2019). As defined by the United Nations High Level Panel of Experts; The food system encompasses all elements (natural resources, inputs, people and institutions) related to the lifecycle of food, from production, distribution and processing to consumption, as well as the resulting outputs such as waste, pollution and social or economic implications (HLPE, 2014). It is a highly interconnected web which fuels people and planet in its most pristine definition, however the current reality is much different.

Global food production is a land and resource intensive industry, which is rapidly expanding its footprint (IPCC, 2019) resulting in deforestation, habitat and biodiversity loss and compromising fragile ecosystems (Bioversity, 2014; IPES-Food, 2016; Scherr & McNeely, 2012). Industrialised agriculture contributes significantly to anthropogenic greenhouse gas emissions, soil degradation and pollution of critical waterways (HLPE, 2014; IPCC, 2019). Furthermore, demand for commodity crops produced through resource intensive monoculture systems such as corn, rice and wheat on the global market has been bolstered by profit motivated institutions like unsustainably low trade barriers and subsidies (IPES-Food, 2015; Wilkins, 2005). Globally, governments have sought to enhance opportunities for trade by prioritising fewer crops in greater quantities grown as cheaply as possible (IPES-Food, 2016). This is reflected in disproportionate support for commodities through agricultural input subsidies and energy subsidies geared to generate greater production of export crops (IPES-Food, 2015, 2016). Such trade systems have been driven by a "feed the world" narrative and have largely contributed to reshaping the way people produce and eat food around the world.

Despite the push for increased production of commodity crops, over 26% of the world's population lacks access to sufficient food and nutrition (WHO, 2019). As a result modern society has found itself in the great paradox of a planet which is plagued simultaneously by acute hunger and micro-nutrient deficiency as well as obesity, sometimes even within the

same household (Bioversity, 2014; IPES-Food, 2015, 2016). Additionally, of the food which is being produced, 25-30% is still being lost or wasted (EMF, 2019; IPCC, 2019). The reality is that the commodity crops being produced only serve to meet the bare minimum of food security by producing sufficient net calories at a global level (IPES-Food, 2016). This production is happening with little regard for nutrient security, efficient and equitable distribution or the longevity of the land and ecosystems which are needed to support current and future production (HLPE, 2017).

Global food systems continue to face increasing pressure from complex and mutually reenforcing challenges such as climate change, a rapidly growing and urbanizing population,
mounting pressure on natural resources and loss of ecosystem services (IPES-Food, 2016;
Willett et al., 2019). It is clear that we cannot continue to sustain the planet and the
population by way of the current systems for producing, distributing, processing and
consuming food, nor handling the resulting waste (EMF, 2019; IPES-Food, 2016). With this
increasingly prescient reality, conversations around a process of change to better serve
people and planet are gaining prominence in mainstream literature and publications
(Bioversity, 2014; FAO, 2020; IAASTD, 2009; IPES-Food, 2015, 2016; Willett et al., 2019). For
actors across the food system and around the globe, including farmers, consumers,
landholders and policy makers, the notion of transforming our food systems has begun to
take root.

#### Food System Transformation

Efforts to solve issues within the food system such as hunger, production inefficiencies or pests and diseases have historically been siloed and short sighted, often resulting in unforeseen consequences (Baker et al., 2019; Kerr, 2012; Madsen & Streibig, 2003; Pimentel, 1996). Additional efforts have largely relied on techno-fixes and policies which continue to operate within the industrial system (Hoffman, 2020), for this reason, these efforts are better defined as incremental shifts rather than actions of transformative change. Transformative change differs from an incremental shift in that it challenges the status quo and seeks to redesign existing systems, established practices, and overcoming industry lock-in's in order to achieve whole systems transformation (Baker, 2004). If they are to contribute to transformative systems change, incremental shifts must intentionally

build towards the redesign of the system (Baker et al., 2019). Today the notion of food system transformation is rooted in the understanding that meaningful transformation requires participation from diverse actors across the food system and around the globe and that it must address complex issues from a systems-level approach (Baker et al., 2019). Therefore, transformative actions must be embraced by multi-disciplinary actors, likewise collaboration across industry sectors is critical to avoid siloed and centrally controlled efforts. Agroecology as a science, practice and social movement offers direction and vision for what it means to cultivate holistic food system transformation (Gliessman, 2016; IAASTD, 2009; IPES-Food, 2017).

Agroecology envisions a food system which is complex and interconnected, rooted in ecological farming practices; environmental protection and stewardship; reconnection of producers to consumers in proximity and solidarity; participation across the food system; and equity through food justice and food sovereignty for all people (FAO, 2018; Francis et al., 2003; Gliessman, 2016). Food system transformation in its most holistic sense, is a societal shift away from a neoliberal system and into an agroecological system. In an exploration of Agroecology as a transformative act, Gleissman (2016) proposes a framework of 5 levels which, when acted on together, can facilitate global food system change. These levels address core areas in need of significant improvements within the food system spanning on-farm practices as well as the broader food and societal systems within which they operate. Summarised, they are as follows: (1) Increased efficiency to reduce reliance on unsustainable inputs; (2) Implementation of alternative and regenerative practices; (3) Redesign of agroecosystems to function in cohesion with natural ecology; (4) Reconnecting consumers to producers to facilitate food citizenship and co-creation of Alternative Food Networks (AFN's); and (5) Building a new global food system, based on equity, justice and ecological protection and restoration (Gliessman, 2016). The complexity and breadth of these levels inherently calls on participation from organisations, institutions and individuals across the food system including farmers, policy makers, governments, scholars and consumers alike. This broad-spectrum approach is echoed and summarized by the Global Alliance for the Future of Food's Theory of Transformation:

Genuine food systems transformation takes place when diverse actions, networks, and individuals intersect across sector and issue silos, the global and local, the macro and the micro. These intersections facilitate convergence around shared visions and values and, ultimately, build critical mass and momentum behind tipping points that lead to healthy, equitable, renewable, resilient, inclusive, and culturally diverse food systems that dynamically endure over time (Patton, 2020).

If food system transformation requires engagement and participation from multiple disciplines, contexts, and actors, then the role of the common individual is as critical as that of the farmer and the policy maker. The dominant narrative pushed by the food industry is that the individual's role in improving the issues of the food system is through consumption, by consciously leveraging their purchasing power in the retail market (Lockie, 2009; O'Kane, 2016). As explained by Johnston (2008) individuals who exercise "voting with their dollar" as a way to facilitate positive change are aptly named "citizen-consumers". However, arguments against this notion have been cropping up in an effort to expose and dismantle the neo-liberal motivations of a citizen-consumer rhetoric. Welsh and MacRae (1998) suggest the citizen-consumer represents a relatively superficial level of passive engagement with the food system. This is because from this position, the individual is only empowered to make decisions within the retail market and are inherently limited to available food items. Additionally, their decisions are limited by the information provided through the retail market, be it accurate or not. Purchases are also significantly limited by the financial capacity of the consumer, disenfranchising those in lower socio-economic groups (Ankeny, 2018; Johnston, 2008; Lozano-Cabedo & Gómez-Benito, 2017). Conservation through consumption is inherently contradictory as it re-enforces the power of a neo-liberal marketplace by prioritising consumption over actions (Ankeny, 2018; Johnston, 2008). The notion of the citizen-consumer places the individual's responsibility to the food system wholly in the sphere of their purchases and removes opportunities to actively contribute to transformative change, in this way citizen consumerism is at best, consistent with an incremental shift in the transformation of the food system. Without the support of social institutions which can bolster the impact of purchasing power by facilitating sustainable actions, conscious consumption practices are inherently insufficient (Seyfang, 2005).

Moving beyond conscious consumption an individual can find a greater depth of engagement in the food system by acting in line with the concept of food citizenship. reflecting on Gleissmans fourth step, we can see that cultivating food citizenship is indeed an important component of food system transformation as it facilitates by the reconnection of producers and consumers and reimagining of food networks (2016). As defined by Wilkins (2005) food citizenship is "the practice 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." This definition encapsulates conscious consumption, while also striving to meet a more holistic responsibility to the food system through tangible actions beyond the market. In practice being a food citizen is to uphold the values of food sovereignty, to focus on localised food production and procurement, to participate at all levels of the food system whilst embodying care for community and environment (Baker, 2004; Gómez-Benito & Lozano, 2014; Wilkins, 2005). Therefore, food citizenship is both an awareness of the challenges created by our food system, and participation in actions which aim to improve those challenges.

While the concept of food citizenship is a promising route to creating sustainable food systems, it stands in the face of an existing and dominant food system which is only at the precipice of transformation. This system has been developed around the primary notion that the individual's role is that of consuming (Welsh & MacRae, 1998). It is therefore reasonable for individuals to feel limited to actions framed by their purchasing power within the retail market. Welsh and MacRae (1998) identified four barriers to food citizenship present at a market level; (1) Corporate control over the food chain, (2) consumers have limited information on the products they purchase, (3) manipulation of the supermarket environment and (4) emphasis on processed and convenience food which do not require skill or knowledge to prepare. These barriers structurally constrain our knowledge of food, ultimately creating what Carolan (2007) refers to as *epistemic distancing*. Epistemic Distance critically impacts our ability to make informed decisions as consumers while also establishing a sense of separation between individual actors, their food source and the environment (Carolan, 2007). Epistemic distancing also inherently contributes to a separation between consumers and producers, inhibiting the co-creation of alternative food

networks. Considering this retail market lock-in of the dominant food system, conceptualising food as more than a commodity and people as more than consumers requires truly transformative actions and initiatives (Welsh & MacRae, 1998).

A 2019 report aptly titled The Beacons of Hope, sought to highlight the actions of 21 food system initiatives around the world engaging in transformative work (Baker et al., 2019). One of the initiatives presented in the report was the International Network for Community Supported Agriculture (CSA) known as URGENCI. URGENCI is an organisation which acts as a platform for the community and network of partners engaged in CSA (Stapleton, 2019). In the report, URGENCI is recognised for accelerating the movement of CSA and with it; local solidarity-based economies, agroecological farming practices, local and global food sovereignty and cross-sectoral collaboration (Baker et al., 2019). CSAs themselves have been shown to contribute to the development of sustainable food systems (Baker et al., 2019; Blättel-Mink et al., 2017; Ostrom, 2007; Stapleton, 2019), particularly regarding the role they play in facilitating the unification of consumer and producer as well as citizen engagement in food related activities.

As an AFN and social movement, CSA has been challenging mainstream food systems since its inception in the 1970's (Henderson & Van En, 2007). While CSAs take many shapes and are often adapted to regional and local needs or ecology, they are most broadly defined as a partnership between the farmer and consumers where the risks and rewards of production are shared (Bashford *et al.* 2013; Henderson & Van En, 2007, Paul 2019). Early intentions of CSA as expressed by Groh and McFadden (1998), was to create a space where communities could support each other through farming and adopt responsibilities of food production in cohort with producers. At the very least, prioritising a more direct food supply chain by establishing relationships of trust and solidarity between consumer and producer (Henderson & Van En, 2007; Baker et al. 2019). In this way, CSA could represent a transformative act, as it allows consumers to get closer to the food system and begin to reimagine market and relational structures. However, as CSA spread across the world and established roots in a rapidly urbanising society, these early intentions have been diluted to the point where many CSAs are more representative of subscription boxes with little, to no community responsibility in production. CSA now exists along a spectrum of participation,

with a broad diversity of engagement ranging from members co-owning and co-managing the land, all the way to the convenience of pre-washed vegetables delivered directly to members doors (DeLind 2002).

#### CSA in Norway

CSA can be found in countries all over the world but was not present on the Norwegian landscape until 2003 when, in an effort to increase organic production and support local agriculture, the Ministry of Food and Environment sought to introduce CSA to Norway. In collaboration with The Royal Norwegian Society for Development (Nor Velg), a committee was formed to envision and implement a model of CSA which was specifically suited to the context of Norwegian society (Bjune & Torjusen, 2005; J. Perotti, personal communication, 26/11/2020). Considering the environmental and geographical limitations of vegetable production in Norway, where only 3.7% of land is arable (Gundersen et al., 2017), the CSA model needed to focus on quality of produce over quantity, with a metric for quality being closeness to and knowledge about clean production (Bjune & Torjusen, 2005). This adapted model of CSA was given the name of Andelslandbruk (noun: Andelsgård), which directly translates to "shared farming". The name suggests that those engaged in it are working collectively towards agricultural production rather than maintaining the position of consumer in an AFN. This CSA model also tapped into core Norwegian values such as appreciation for collective work and time spent outdoors (Hvitsand, 2016). In this way Norwegian CSAs more closely embodied the early intentions of CSA as envisioned by Groh and McFadden (1998).

The initial pilot farms were implemented in 2006 and were quickly selling out shares (J. Perotti, personal communication, 26/11/2020), since then the idea has rapidly grown in popularity, now numbering 92 farms across the country (Andelslandbruk Norge, 2020). The rapid uptake and popularity of CSA in Norway suggests that at both a consumer and producer level, there is a desire for an alternative food production and procurement model. In this way, CSAs took up the reins as an AFN in Norway alongside other popular direct sales models such as REKO Ringen and Cooperative buying clubs (Kooperativet, 2021; REKOringen, 2021) For a deeper dive into the contextual information pertaining to the Norwegian food system, and the popularity of CSA refer to appendix A.

CSA in Norway can be divided into two distinct operational structures; farmer-run and community-run. Farmer-run CSAs are initiated and operated by a farmer on land that they own or lease, and are operationalised to suit the production, social and market preferences of the farmer. Community-run CSAs are initiated by community groups who come together over a shared desire for a more intimate connection with their food. These groups often lease land from a municipality or private owner, and then hire a farmer or gardener and elect a board of members to manage the administrative tasks on the farm. Both models are guided by 5 principles, which are laid out in the Andelslandbruk handbook developed by the non-profit organization, Organic Norway. These principles aid in the organisational structure of CSAs across the country. Loosely translated, they are: (1) Transparency on agricultural decisions (2) Transparent economic activities (3) Shared harvest and shared risk (4) Participation of members and (5) Sustainable farming practices (Andelslandbruk Norge, 2021). These principles expand on the original concept of CSA by incorporating member participation in production activities and governance of the farm. Participation on Norwegian CSAs is most often rooted in the concept of dugnad, or communal work, which addresses the need to get things done by calling on help from many hands within the community (Nordbø, 2020). *Dugnads* are organised events which bring together members to take on tasks around the farm collectively. However, participation in production also may occur in individual instances of weeding or cleaning as members drop-in to contribute to the labour.

The level of engagement present on CSAs in Norway, is reminiscent of community gardens, where people work collectively or alongside each other to produce food and share knowledge and experience. Comparatively, in other parts of the world, CSAs often resemble subscription-based food provisioning with little connection between members or the farm and those who grow their food. In this context, CSAs have done little to garner the creation of community, connection to place, food or even learning opportunities (DeLind 1999, O'Kane 2016, Perez 2003, Pole & Gray 2013, Ostrom). However, studies done on Norwegian CSAs have found a plethora of benefits connected to the high degree of member engagement on the CSAs through *dugnads*, working groups and self-harvesting opportunities (Haugen, 2019; Hvitsand, 2016; Moe, 2018; Storstad, 2016). Due to the

expectations and normalisation of participation on Norwegian CSAs, members become acutely familiar and engaged with their food and its production. It is this immersion in manual work which as Thompson and Coskuner-Balli (2007) suggest, cultivates feelings of enchantment with one's food and its origins, and with that, greater care for those who produce it and the environment (Carolan, 2007). For these reasons, in the creation of the Norwegian model, there was great optimism that CSAs could be a critical step towards cultivating food citizenship among their members (Bjune & Torjusen, 2005).

Studies done on CSAs in Norway have found motivations for members to join are predominantly rooted in a desire for fresh, organic and local vegetables (Hvitsand, 2016). This is consistent with studies done on member motivations for CSAs in other parts of the world (Ostrom, 2007; Perez et al., 2003; Pole & Gray, 2013). However, beyond preferred food acquisition, Norwegian CSAs have been found to be effective at facilitating opportunities to not only learn about agriculture and food production (Haugen, 2019; Hvitsand, 2016; Storstad, 2016), but to make space for "restoration of experience", or the opportunity to reconnect to nature and re-establish a sense of care for the environment (Moe, 2018). Furthermore, Norwegian CSAs are shown to have a significant ripple effect into the broader community through engagement with schools, social inclusion initiatives and broader knowledge creation (Haugen, 2019; Moe, 2018).

As a more holistically integrated model which embeds members in their food and its origins, CSA in Norway is a unique place to explore the "beyond consumer" role of an individual in the food system and the potential adoption of the role of food citizen. This role is important in the context of food system transformation as sustained transformational change is only possible when stakeholders from various levels of the food system take action and experiment with new approaches, including actors at the consumer level (Koistinen et al., 2017). Within the concept of food citizenship, moving beyond consumption demands active participation and engagement, however as Storstad's (2016) study of a CSA near Trondheim found that members were reluctant to interpret their engagement as political activism, rather the embodiment of personal values. Regardless, she believed that the growing number of individuals taking part in CSAs across the country could collectively contribute to political change. It is this notion of cultivating change through day-to-day practices which

raises the question of what role Norwegian CSAs might play in facilitate the shift from consumer to food citizen among its members.

The objective of this thesis is to contribute to our understanding of what works in cultivating food citizenship within the consumer sphere. Specifically, I will investigate how members participating in Norwegian CSAs exhibit awareness and demonstrate actions consistent with the role of a food citizen. I will achieve this by asking the following questions:

- 1. What food system challenges motivated members to participate in CSA?
- 2. What practices are members engaging in through their CSA and how do they relate to food citizenship?

## 2.0 Methods

For this research I set out to capture a rich understanding of how members of CSAs engage in their respective farms and the potential that holds to cultivate food citizenship. In order to achieve this, I selected 4 CSAs around Norway and utilised a combination of participant observation on each farm and semi-structured interviews from a selection of members of each farm.

## 2.1 Farm Selection

My first step was to select the CSA farms which would be the backdrop for my research. While clear principles for CSA in Norway exist, each farm differs in their approach to ownership models, sizes, locations and with different degrees of expectations for their members. As my research was to explore relationships between members of CSAs in Norway and micro-level food system transformation, I felt it was appropriate to select CSAs which were diverse in their operational structures to best capture the variety of nuances within member engagement. I aimed to locate CSAs which were both urban and rural, old and new, large and small as well as farmer-owned and member owned. I utilised Andelslandbruk.no to aid in the selection of CSAs. after a pre-selection of 7 CSAs, I spoke with the farmers or managers of each one to confirm willingness to participate. Through this process I finalised a selection of 4 CSAs, which are as follows:

#### Dysterjordet Andelslandbruk

Dysterjordet is a member run CSA of 130 members located close to the centre of Ås, on 15 acres of land leased from a local farmer. The CSA employs a part time gardener to oversee the production and a part time manager to organise members and tend to administration needs. This farm produces mixed vegetables in field and cold-frame, and experiments with different production methods. There is a board elected each season from the membership pool. All members are expected to contribute 6 hours per season which can be achieved through organised 2-hour *dugnads*. There is also a membership with reduced cost in exchange for increased labour for low-income members. Dysterjordet Andelslandbruk is in its 5<sup>th</sup> year of operation and is certified organic by Debio (organic certifying body). I

personally am a member of this CSA and was in my second year of membership at the time of research (2020).

#### Linderud Andelsgård

Linderud is a member run CSA with 60 members located in the bustling community of Linderud in Oslo land leased from the Oslo Kommune. The land on which Linderud Andelsgård sits is a historical farm called Linderud Gård which was only recently opened to the public as a park and now serves as a multi-purpose community space. Linderud Andelsgård shares the space (and often collaborates) with a local mushroom producer, a community gardens organisation, some horticultural entrepreneurial projects and the MIA museum. This CSA has an elected board and employs a part time gardener to oversee production on the farm. Members are expected to contribute 12 hours of volunteer work per season which can be achieved through self-directed work of any kind, or organised, drop-in style *dugnads*. At the time of research this CSA was in its very first year of production and was doing so by organic standards, many volunteer hours had been used to establish the farm.

### Øverland Andelsgård

Øverland is a member run CSA with 350 members located in Bekkestua, just outside of Oslo on 20 decares of land leased from Norges Vel. Øverland is Norway's oldest CSA and was established as one of pilot farms in 2004. Øverland has a 13-year rotation plan for their fields, several school gardens for local children, 3 cold frames for extended production, a small chicken coop, a medicinal herb garden and honeybee hives. Øverland has an elected board, employs a head farmer and several assisting gardeners to oversee production as well as a part time manager. Members are expected to contribute 6 hours of voluntary work per season which can be done through self-directed weeding, organised "green finger" events or through special projects groups, of which there are 13. At the time of research this CSA was in its 14<sup>th</sup> year of operation.

### Undeland Gård

Undeland is a farmer-operated CSA with 99 members and 4 restaurant members located in the village of Ulvik on the Hardanger Fjord, two hours east of Bergen. Undeland sits on 5 acres of privately owned land and is operated by the two farmers who own and live on the

farm. Undeland has a combination of local members within the village who self-harvest their produce and members in Bergen and Voss who receive their food by delivery at a common pick-up point. At Undeland they grow a variety of vegetables with a keen interest in testing new and interesting varieties. In the year of research, they had begun incorporating flower production on the farm which was sometimes included in member shares. Undeland does not have a member board, employs two full time farmers and integrates seasonal help through WWOOF volunteers. Members are expected to contribute 5 hours of volunteer work to the farm which can be done through organised *dugnads* only. At the time of research, Undeland was in its 4<sup>th</sup> year of operation.

All of the farms hosted annual or bi-annual meetings to include member perspectives on plans for the coming season and collect feedback on seasons past. They also all embraced the principle of transparent economy.

Andelsgård	Ownership	Years of	Members	Harvest	Volunteer	Volunteer
		operation			hours	methods
Dysterjordet	Member	5	130	Self	6	Dugnad, board or
	owned					reduced membership
						volunteering
Linderud	Member	1	60	Self	12	Dugnad, board or
	owned					self-directed
Øverland	Member	14	350	Self	6	Dugnad, board, self-
	owned					directed or working
						group
Undeland	Farmer	4	99	Self /	5	Dugnad
	owned			Pre		

Fig. 1.0 CSA summary and overview

#### 2.2 Data collection methods

The data collection process for this study was done through participant observation and semi-structured interviews in an effort to achieve triangulation of data, cross comparing

what was captured through the interviews with what was witnessed in the field (Bryman, 2012). The following section describes how each method was used.

## Participant Observation

Schensul et al. (1999) define 5 purposes for using participant observation in a study: to develop and guide relationships with the community; to get the feel for organisation and interrelations; to show the researcher what the community deems important; To create familiarity between researcher and members of the community; and to provide a source of questions to guide communication with informants (p.91). Within this study I had three core purposes for the use of participant observation which aligned with the objectives outlined by Schensul. Firstly, to establish context by developing a greater depth of understanding about each farm and the activities and interactions occurring within them. The second objective was to witness the interactions between members and the farm, the farmers or gardeners as well as between each other to better understand the interconnections of community on the farm. The third purpose was to assist in the purposive selection of interview candidates and establish a familiar relationship with the farm and members.

The process of participant observation was done in a minimum of two-hour time slots in which I would attend events on the farms and actively engage in the event or work while holding casual conversations with members or employees. At the end of each event or work period I would record field notes from the day. This phase of research took place from the month of July 2020 until October 2020. At each farm I set out to attend at least one work event and one special event, this was more accessible on some farms than others due to a variety of external factors including location, transportation and frequency of events. In Addition to on-farm participant observation, I joined all of the Facebook groups and newsletters for each CSA. Here I monitored activity, types of information and interactions between members and producers.

The time of participant observation was also characterised by the Covid-19 global pandemic. As a result of this, participation on the farms was somewhat limited; all gatherings or work hours were held outdoors with constant shifting restrictions dictating attendance numbers and safety protocols. Farm managers and members of all farms expressed how this season

had seen significantly limited events, with restricted gathering for social purposes including educational lessons or food sharing events, both of which are normal and celebrated occasions on the farms. Complications from Covid-19 as well as a bus strike in the city of Oslo prevented me from accessing two events at Øverland Andelslandbruk. This meant that Øverland was the CSA on which I spent the least amount of time. Additionally, the distance to Undeland Gård made attending events there very difficult, thus my time with this farm was characterised by one very long visit of 4 weeks, and one shorter (but still very long) visit of 4 days. For a full break down of participant observation visits to each farm refer to Appendix E.

#### Semi-structured interviews

Interview candidates were selected through a combination of purposive sampling and voluntary self-selection. The selection during purposive sampling was aided by my experience on the farms during participant observation. Members who I had made contact with and who were engaged and communicative during *dugnads* or special events were asked if they would like to be interviewed for my research. When this method of selection didn't capture enough interview subjects, I sent out a request for interviewees on each of the CSA's Facebook groups. This generally turned up quite a few volunteers except in one case, on Undeland Gård where I received no responses and the farmer sent out a personal request on my behalf to 3 members for interviews. In total 19 members were interviewed and 3 industry professionals.

The qualitative interview process as described by (Kvale, 1996) "attempts to understand the world from the subjects point of view, to unfold the meaning of peoples experiences, to uncover their lived world prior to scientific explanations". With this in mind, I developed my interview guide to consist of broad questions which would allow space for the interview subjects to express their experiences in narratives or stories. Likewise, the interview guide was meant to be flexible to allow for a natural flow of conversation, yet with emphasis on key points which I intended to cover in each interview. The complete interview guide, can be found in Appendix C.

Interviews were intended to be held on the farms at which the members belonged, but as the pandemic restrictions tightened, travel beyond my own community became unadvisable resulting in 15 of the interviews needing to be done over Zoom video call. Two of the inperson interviews were done on-farm, in the social area, two others were done in a coffee shop near to the farm on a rainy day. The Zoom interviews were conducted in the evening at a time selected by the interview subject. Due to the nature of video calls as relatively impersonal coupled with a societal experience of "Zoom fatigue" (tiredness from an abundance of work or personal video calls) I attempted to set a comfortable atmosphere by beginning each interview with a light conversation about the interviewee's day or the weather (a favourite topic among Norwegians). Each interview lasted between 25 and 50 minutes, dependant on the depth of the interviewee's responses. All interviews were completed between October 1st and November 15th.

Before beginning each interview, I confirmed with the interviewee that they had read and understood the consent form which I had sent them in the days prior to the interview. Once they confirmed that they had, I reminded them that the interview would be recorded and that I would be the only person to hear the recording. After the consent process was completed, I told the interviewee I was turning the recorder on, and then showed them that it was recording. At the completion of the interview, I would turn the recorder off and then show them that it had stopped recording.

# 2.3 Data Analysis

I recorded all interviews on a handheld recorder, uploaded them to my personal computer and then protected them behind a passcode on the NMBU server. The member interviews were transcribed for data analysis and each one was transcribed manually by myself, then listened to a second time while reviewing transcripts to ensure accuracy of transcription. The industry professional interviews were listened to by myself while I took detailed notes to complete background information about CSA in Norway.

I utilized thematic analysis (Nowell et al., 2017) to guide my process of coding and analysing my data. I began by manually coding the interviews using a combination of deductive and

inductive coding process' with a keen eye to extract signs of actions and values which were alignment or contrary to food citizenship. The deductive process allowed me to follow preestablished themes of Food citizenship theory as I moved through the transcripts, while the inductive process allowed me to draw out the emergent themes which brought life to the theory by connecting the relevant experiences of CSA members to food citizenship. As subthemes emerged, I was able to cluster them in relevant groups and eventually see clear patterns of connectivity between the various perspectives of my interviewees.

Once I had established themes, categories and sub-categories, I directly analysed them against the conceptualised framework of food citizenship. I did this by comparing each individual sub-category and category to core elements of food citizenship, which generated a complex web of interconnections between categories and theory. This was done to identify areas of cohesion or misalignment in order to best illustrate if and how members actions aligned with food citizenship.

#### 2.4 Theoretical framework

Analysis of the data collected for this thesis was done through the use of two theories; *Food Citizenship* and *Social practice Theory* (SPT). The conceptual theory of food citizenship was the framework by which I understood actions and awareness as beyond the role of consumer. While SPT guided my understanding of how members adopted and engaged in practices consistent with food citizenship.

#### Food Citizenship

The recent emergence and popularity of the term food citizenship in the literature is indicative of the shifting reality of our food systems and the increasing importance of people and planet focused food procurement. As a concept food citizenship stands in opposition to the notion that the individual's sole purpose is consumption and aims to re-define the role of the consumer to include rights and responsibilities across the social and environmental reach of the food system. Food citizenship encompasses many elements of other prominent schools of thought and food movements including food sovereignty, food democracy, food justice and food security (Lozano-Cabedo & Gómez-Benito, 2017). The following section will

draw on a broad spectrum of food movement and food citizenship literature in an attempt to offer a comprehensive overview of the concept.

Wilkins' (2005) concise definition of food citizenship is perhaps the most broadly referenced in the literature and describes food citizenship as "the practice 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." This definition encompasses a broad set of issues present within the dominant food system, Wilkins goes on to elaborate on the individual's duty as a food citizen; "each of us can practice food citizenship by first thinking about the food system implications of how we eat and then by taking action." The reflective process of thinking about how our eating habits impact the broader system is a critical first step and suggests that food citizenship cannot be a passive process but must be rooted in recognition of our individual and collective responsibility. This notion is echoed by Lozano-Cabedo & Gómez-Benito (2017) who emphasise the importance of our responsibilities to other people including future generations, other living things and the environment as a whole. To be a food citizen is to recognise and acknowledge our responsibilities and act in accordance with those responsibilities and in the spirit of improving the sustainability of our food system.

Acting on responsibilities requires a reconfiguration of the roles of different social actors in the food system, empowering the citizen to move beyond consumption and begin to engage more wholly in the production, distribution and procurement of their food (Lyson, 2000, 2005). This engagement may be characterised by physical participation in grassroots efforts like community gardens, bulk buying clubs or CSAs (Baker, 2004; O'Kane, 2016) as well as in democratisation through engagement in food governance and advocacy (Hassanein, 2003). This sort of participation is uncommon for most eaters, however, Welsh and MacRae (1998) suggest that "food, like no other commodity, allows for a political awakening as it touches our lives in so many ways." As such, there are multiple points of entry for an individual to engage in food democracy. One such way is through the mobilisation of social movements which aim to elevate citizen voices, challenge the forces which seek to control the food system while creating space to re-imagine alternatives (Hassanein, 2003; Murdoch & Miele, 2004). Likewise, it is important that this participation be accessible and encouraged for all

people, that every actor in the food system and eater of food can engage as a food citizen (Lozano-Cabedo & Gómez-Benito, 2017). Food citizenship encompasses a plurality of actors from around the world who share the common objective of creating environmentally and socially sustainable food systems, thus each deserves a seat at the table (Lozano-Cabedo & Gómez-Benito, 2017). As Welsh and MacRae (1998) suggest "food citizenship is both belonging and participating, at all levels of relationship, from the intimacy of breastfeeding to the discussion at the World Trade Organization."

It is through these participatory paths that the food citizen embodies the interest of equal rights to food and sovereignty over food for themselves, their communities and all people. It is important to recognise that rights and sovereignty in this context, extend beyond access to food and encompass the right to define and exercise food preferences in terms of consumption, production and distribution as an individual or a community (Anderson, 2013; Lozano-Cabedo & Gómez-Benito, 2017; Patel, 2009). For this reason, food citizenship also encompasses social and economic justice for all members of society, consumers and producers (Allen, 2010). This element of food citizenship speaks to the need to reduce social inequalities in access to food and participation in food activities, as well as fair treatment and compensation of food system actors (Allen, 2010; Lozano-Cabedo & Gómez-Benito, 2017). Social and economic justice encompass to both local and global contexts and pertain to both material (distribution of resources) and process (participation and democracy) (Allen, 2010). Overcoming these inequalities is the only path to ensuring the right to food for all people (Lozano-Cabedo & Gómez-Benito, 2017). Within the dominant system these rights to both access food and to define its provenance are not inherent, so the food citizen's role is to act towards the instilment and support of these rights for all, whilst defining their own sovereignty. The literature suggests that this can be achieved through the re-localisation of the food systems (Baker, 2004; Levkoe, 2011), where there are more readily available opportunities for inclusion, innovation and participation (Allen, 2010).

While local food networks have a role in the fair and just future of food, dominant agri-food systems are still overwhelmingly global, therefore food citizenship must also be cosmopolitan in character (Lozano-Cabedo & Gómez-Benito, 2017). Involving the recognition of the inherent cost shifting of ecological and social impacts associated with

global trade as well as through actions which seek to find and implement solutions internationally. Likewise, the cosmopolitan character of food citizenship aims to stand in solidarity to collectively work towards common objectives of international food system actors to achieve true food system transformation (Lozano-Cabedo & Gómez-Benito, 2017). Food citizenship recognises the interconnections of our actions on the broader system and on each other, likewise that sustainable change cannot be achieved through independent actions alone. Therefore, food citizenship must "manifest in both individual and collective spheres, as well as in private and public spaces" (Lozano-Cabedo & Gómez-Benito, 2017). Food citizenship is not only embodied through changes in an individual's actions and awareness but through defense of the common good and participation in collective and public actions (Lozano-Cabedo & Gómez-Benito, 2017; Renting et al., 2012). This should be achieved with the spirit of "we" over "I" as we find ourselves "grounded in common purpose" (DeLind, 2002). This collective spirit is also not inherently cultivated in the dominant food system, therefore incremental changes in the way we approach our food and each other can contribute to recentering the "we". Fortunately, as Baker (2004) suggests, even an act such as tending one's own garden can be a gateway into the broader political movement of food system transformation.

#### Social Practice Theory

Due to the embeddedness of the consumer mindset in individuals and society as a whole, engaging along the spectrum of food citizenship is likely to be a significant divergence from the daily norms of many people. I use Social Practice Theory to interpretate the research results in an effort to identify how members come to adopt practices consistent with food citizenship. SPT offers a holistic perspective as a means to explore the effects of behavioral change interventions, even if such interventions are enacted unwittingly (Hargreaves, 2011). Diverting focus from the singular decisions of an individual, SPT prioritises the practice of 'doing' in everyday life and recognises that the source of changing behaviour rests in the development of the practices themselves (Shove & Warde, 2002; Warde, 2005). Therefore, changing behaviour does not require persuading an individual to make different choices, rather it requires adapting the practices to themselves be more sustainable (Southerton et al., 2004).

Shove and Pantzar (2005) describe practices as a connection between *images* (meanings, values, norms and objectives), *skills* (competencies, knowledge or procedures) and *stuff* (place, materials, technology) which are joined through regular and repeated performance by skilled practitioners. In the context of the modern food system, the practice of food acquisition by a skilled practitioner (consumer) can be described as a set of *images* (process of shopping and purchasing, prioritising dollar value), which requires *skills* (selecting food items, understanding nutritional needs, reading labels) in interaction with *stuff* (grocery store, food options, plastic bags). The practice is maintained by the connection between these elements as they are regularly repeated by practitioners. Therefore practices emerge, stabilize and die out due to the creation or breakage of the links between each element (Shove & Pantzar, 2005). Creating new sustainable practices requires challenging or breaking the existing links or elements which are considered unsustainable, making space for new ways of everyday 'doing' (Hargreaves, 2011).

Warde (2005) suggests that the making and breaking of these links can be triggered from two sources; internally, as an individual questions or re-assesses routines, values and conventions to make way for new ways of 'doing'; or externally as an individual and their practices are faced with differing ways of 'doing' or an altered situation. External forces determine the structure of consumption and practices, though it is important to remember that practices are internally differentiated and are based on individual experiences and knowledge. Murdoch and Miele (2004) interpret these linkages within food acquisition as relationships and describe the process of breaking and making them as relational reflexivity. Relational reflexivity as described by Murdoch and Miele (2004) is the process of consciously disconnecting from the aesthetic veneer of mainstream food and the supermarket environment, to allow space for the re-evaluation of food and cultivation of new ways of connecting to it. They also suggest that this reflexivity from an internal perspective is rooted in a growing concern for ecological care, social engagement and spatial connection (Murdoch & Miele, 2004). External forces on the other hand, may result from social movements, policies, and changes of environment which can trigger individuals to re-value and re-imagine their interactions with food. This challenging of norms leads to new ways of relating to food and space, cultivating a 'relational aesthetic', where the value

or preference of food is based on one's physical or emotional relationship to it (Murdoch & Miele, 2004).

## 3.0 Results and Discussion

Food is an intimate and individual element of human existence, and as such, decisions around what we eat and how we get it are often subjective and dependant on our life's experiences and personal values. In the presentation of research question 1, which explores members motivations for participating in CSA, the results are presented separate from the discussion in parts *a* and *b*. This is because people's motivations are highly interconnected and build off of each other. Communicating their relationships to each other and thus how they culminate in the decision to participate in CSA was done most concisely through a separate discussion section. For research question two, which outlines members actions and the relationship of those actions to food citizenship, the results and discussion are combined in one section. This is done because each action reflects multiple elements of food citizenship, and communicating their multiplicity was done most effectively parallel to the presentation of results.

## 3.1a Food system challenges which motivate participation in CSA

Throughout the interviews, four different themes emerged as challenges members saw within the food system and which motivated them to participate in CSA. Those themes were; *Unacceptable environmental implications, barriers to exercising food sovereignty, lack of connection to food* and *concern for the security of food*. The following section will explore these themes along with their categories and sub-categories in greater detail.

#### Unacceptable environmental implications of the food system

- Associated with production on-farm
  - Soil degradation
  - Compromised water quality
  - Loss of biodiversity
- Associated with off-farm distribution and waste

- Transportation and fossil fuels
- Normalisation of food waste

The environmental implications of the conventional food system appeared to be a motivating factor for members in the decision to participate in CSA. Members shared very strong opinions about environmental impacts, specifically regarding the use of chemicals such as fertilisers and pesticides which they deemed undesirable based on their personal understanding of them. For Nils, the use of what he called "poisons" was concerning due to its implications for the soil, "With the normal agriculture you use fertilisers, and you are fertilising the plants but the soil, the earth, is getting more poor." For this reason, Nils decided to purchase his vegetables from a CSA, where he knew "how the vegetables are treated, I know they don't use poisons." Members were also concerned about nutrient runoff from fertilisers into water ways and the effects it had on eutrophication and the health and safety of aquatic life. Anya's concerns around water pollution from agricultural chemicals were significant enough that it impacted her food choices; "There are so many metals in the water, there are so many pesticides in the water...which goes into the fish." Anya opted not to eat fish for this reason. Birgit, who lived and worked on her own farm, shared her ideal vision of environmentally sound food production, "I think it's important that we look at the earth and the soil as a whole, that you work with diversity and that you grow things that originally come from the place where you grow it." This practice of producing in alignment with the natural environment was something she felt the CSA achieved and was therefore a good thing to participate in.

Concerns around the environmental impacts didn't end at the farm gate, members spoke about the inherent food waste within the dominant food system and felt there was a lack of respect given to food. Members recognized how institutionalised food waste was disguised effectively by the supermarket environment. Anne noted the stringent "quality" standards which influenced what was sold in the supermarket "all the vegetables are similar, they are so like, the same size, the same colour and everything, and I know that a lot of the vegetables are thrown [away]." Anne's recognition of similar appearing vegetables is indicative of the aesthetic veneer of food. Iben Identified that this aesthetic was an element of how the supermarkets presented food to consumers, saying; "The supermarkets don't

really force us to think about what they need us to buy in order to not throw away food."

For these members, the wastage of food was a pressing issue and one which they couldn't adequately address through consumption at the supermarkets.

The reality of a globalised food system and Norway's reliance on international imports for both livestock feed and human consumption poses a significant threat to the environmental sustainability of the food system. Paul identified the trouble with imports when he said: "There [are] vegetables we cannot grow in Norway so if we want them we have to import them, but this has a huge cost on nature [and] ecology." Paul went on to add "this I think almost everybody is aware of, and not everybody is probably ready to pay for that somehow, like directly pay or actually contribute to reducing the amount [of imports]." Paul found himself weighing his decisions around food procurement against the greater impacts of the food system, he also recognised a social hesitancy to take responsibility for the ecological cost of importing food. Thea believed that every individual should take responsibility for the production of food and joined the CSA as a way to achieve this for herself. She believed that improvements to this issue could be found in local food production; "I don't think we could stop global warming- but I do think that we can make life better locally and if more people are taking care of their local food production and thinking about [the] environment."

Members expressed their concern for the environmental impact of food production and distribution, but also acknowledged that they too had a responsibility to improve the environmental impact of the food system by making conscious consumption choices. These choices however often came head-to-head with another food system challenge in the form of barriers to exercising sovereignty over their food choices.

# Barriers to exercising food sovereignty

- Inadequate availability of preferred food items
  - Unable to find organic and locally produced food
  - Affordability of preferred food items
  - Limited variety of preferred foods
- Limited distribution options for preferred items

Almost all members said that accessing organic, local or fresh food was important to them, but many of them had experienced some sort of barrier to acquiring these foods within the conventional market. For some, the barrier was simply a matter of the availability of such foods, including Sara, who said "I had wanted to have organic food to eat ... for a long time. But it has been difficult to get in the shops you know." Sara noted that organic vegetables are more common in stores in recent years, but even so, there was very few options available. Monique also said that the stores did not always provide her with the vegetables she preferred to buy, but that she would "always take vegetables that are ecological, so that they don't use fertiliser or pesticides. It's not always possible but when I have the possibility, I will do it."

When speaking about the availability or organic vegetables in the market, Anne recognised that she could leverage her purchasing power to influence the amount of organics carried by the store, and indeed believed that it was the responsibility of the consumer to take action in this direction. However, due to competing economic demands she found that it wasn't always within her reach to do so; "I want to buy my own home, so sometimes I try to buy cheap food to use less money." In this way, even when organic vegetables were available in the store and despite one's interest in purchasing them, members found that the price of them acted as an additional barrier and was itself a limiting factor in their decisions. in recognising the limitations of purchasing organic produce in stores, Paul turned to the farmers market in Oslo to seek out his preferred produce but was surprised to find very few and very expensive food items; "[There was] organic raspberries, and some honey and things like that. They were really expensive, so for me they were killing the organic movement. Because selling it really expensive, nobody will buy it."

Paul's experience of a farmers market was not unique, in Norway the high costs associated with participating in farmers markets means the vendors or farmers have to mark up their products significantly to break even, resulting in an abundance of sellers with only high value products. One CSA farmer from this study shared a story from a time when he had participated in a farmers market as an alternative sales route. He noted that he had completely sold out of produce, but after accounting for time, labour and vendor fees he

recognised that vegetables simply didn't have the profit margin they needed to be successful in the farmers market environment. This information is important because it highlights the extremely limited variety of places a consumer can purchase their preferred food items. Likewise, the choice of where to purchase your preferred food is also a choice to supporting the distributor or supplier. For Anya, this was a significant barrier as she spoke passionately about her dislike for supermarkets; "When you go to the supermarkets here in Norway, you realise that we have three chains of supermarkets ... and all the three chains have the same food with the same prices because it's a mafia." Anya aimed to "undermine" the supermarkets by avoiding them as much as possible, saying she would only go there for the bare essentials which she could not make or grow herself, such as toilet paper and lemons.

The dominant barriers for members exercising their food sovereignty were the availability and affordability of their preferred foods and through the chains of distribution which they felt were most desirable. The ability to define where one's food comes from and how it is produced is a core element of food sovereignty and is intimately linked to cultivating a psychological connection to food. For Anya, purchasing food from supermarkets, or "the mafia" as she called them, was not representative of her values and did not satisfy her need for food. The next section will outline ways in which members expressed the conventional food system did not meet their desire for a connection to their food.

## Intellectual and physical disconnect from food

- "Where my food comes from"
  - Unclear information about food origins
  - Distrust of labeling mechanisms
- Loss of knowledge and tradition

At the heart of many conversations with members was a desire to know where their food comes from. Knowing where food comes from can be interpreted as both knowledge of the physical location of the farm which produces their food, and the botanical origins and life cycle of a food item, such as the development of a cucumber from an herbaceous vine. Both interpretations of "where" are hindered by the anonymity of the supermarket environment.

For Clara, who noted that her CSA was along her walk to work, "connection to food" was one of the most important reasons for joining the CSA, as she said; "I like to know where my vegetables come from, and I have a daughter now, she's now three and I would like her to know how you- where your food comes from too." connection to food for Clara was based in knowledge of how her food was produced, but became tangible as the CSA existed as a characteristic of her every-day landscape.

Without the experiential knowledge of their food's origins, members were left to determine the provenance of their food, and thus how to relate or connect to it, from the information provided at the supermarket. Lotte was skeptical of this as it represented what she called the "branding" of products and only provided incomplete information, saying "it is based on ideology and not only on research. So, all the standards are not necessarily based on the best way to produce, like you can have organic pesticides, but they are basically the same as regular pesticides." It is clear from this quote that for Lotte, the available information about her food was insufficient and her pre-knowledge from volunteering on organic farms caused her to question its validity. In contrast, Nadia, who previously had no experience with agriculture, was trying to learn more about her food and tended to trust and lean into the supermarket labeling, often choosing product which were labelled with the Øko-merket or organic label, her reasoning for this was; "When you are an amateur like me and then you search for knowledge, and there are so many different schools or ideas or ideologies... you are overwhelmed about it and I don't know whether to believe or not believe." Nadia had previously decided that the Øko-merket was adequate for guiding her food decision, but as she engaged in her CSA, she noted that "I am learning more about it, it's like I am- I feel like I am only scratching the surface." Nadia found herself in the process of building knowledge around her food through experience with it and thus building a greater degree of connection to it.

Disconnect from food was also described as a loss of knowledge, tradition and experience which had previously connected individuals or earlier generations to their food and its source. Kari had experienced a personal disconnect from a previously "connected" reality when she moved from a small village to the city; "I've always been very close to my food in a way because it was like- go to neighbours to buy a pumpkin or things like that and I've kind

of missed that." Kari found that from moving around she "didn't have the same connection" to her food. Kari's experience is both rooted in familiarity of place -having social connections to the producers of her food- and in physical closeness to the production of food. Prior to joining the CSA, living in an urban environment created a degree of separation from both her (food related) social connections and her food source. Katja found herself reflecting on a generation which preceded her and the traditions which were lost with urbanisation and a growing generational distance from the farm, saying;

"My mother, her father came from a farm actually, it used to be a whole community ... and she was a part of that community even when they lived in town because they went for harvesting in their holidays- what they call Potato Holiday in Norway... all the people who had a connection to a farm they would go there and work together- and the thing is, she told me about that farm when I was a child and to me it sounded like an ideal place."

Katja found that her disconnect from this "ideal place" had repercussions for the next generation, saying "it's also all this knowledge that has been lost since just one generation. Because my mom knew all of these things, she just learned them being there and I don't know anything anymore." She went on to add "That used to be a normal exchange of knowledge in our society, just 2 or 3 generations before ... Actually, my children and their children, they will probably be even further away from this."

The members who had memories or experience from having been connected to food production found themselves longing for a re-connection to these "traditional" realities, while members who were more accustomed to the supermarket environment found themselves questioning its validity and became curious about alternatives. While the desire to connect or re-connect to one's food was based in establishing familiarity and relational value, a greater degree of connection to one's food may also serve to address another food system challenge which was identified by the members, the security of their food source.

## Concern for security of food

Vulnerability in the face of food scares

- o Covid-19 food rush
- Reliance on imports
- Extreme weather events
- Threats to regional food production
  - Loss of 'Matjord' to urbanisation
  - o Economic hardships of local, small scale production

Concerns for national and individual food security were present in the interview process and cycled around reliance on imports and feasibility of regional production. As this research was conducted in the months following the onset of the global Covid-19 (Corona virus) pandemic, memories of closed borders, interrupted supply chains and empty grocery store shelves were relatively fresh for members. Thea expressed her concern when she said: "I'm just worried about what will happen if everything goes apart in the society and we don't have food, and we just saw what happened just the same week that Corona came and how vulnerable we were." Thea and her partner were actively building towards self-sufficiency prior to the onset of the pandemic which only strengthened her commitment to this effort saying she wanted to be "mostly self-sufficient." For Thea, who produced a significant amount of her own food in her yard and in a nearby allotment, participation in a CSA represented only one part of this effort.

Paul shared this concern for the vulnerability of the food system in the weeks following the onset of the pandemic, saying "I see things could go bad, and I think Norway is importing a lot." The relationship between "things going bad" and the amount of imports coming into Norway expresses a distrust that Paul holds that the conventional Norwegian food system could meet his needs in time of crisis. For Elena, who joined the CSA after a draught in 2018, personal food security was also front of mind, "I thought it might be important to have another source of food. Maybe a naive thought because if there would come another draught of course it would be on NRK and [the CSA] would be robbed by other hungry people." In addition to providing her with an (almost) secure source of produce, Elena also saw the CSA as a security investment as it could be a resource for knowledge in a time of food vulnerability, "I think we will experience more draughts in the future and maybe having some knowledge about storing and producing your own food is important."

Of course, in order to secure the ability to produce food whether in community or individually, productive land must be preserved and made available for this purpose. As cities and towns are expanding in eastern Norway, the disappearance of *matjord*, or agricultural land, was a major concern for the future of food production. Stina believed there needed to be stronger protection of this land and that "we need to take better care of it and not build houses or shops or anything else on it." A concern which was echoed by Katja;

"The neighborhood or area I live in used to be farm land, and when I was a child it was expropriated, all the farms were more of less expropriated by the local community and municipality and it was decided that this was going to be housing for people and also a lot of near-by areas for factories or industries, so you lost one of the best farming areas in Norway to housing which is of course important but it's happening at a higher rate these days so you have to be very conscious about what you lose."

Katja, who's CSA sits on a small, preserved portion of one of the expropriated farms in her neighborhood, saw the CSA and urban agriculture movement as an opportunity to "actually regain a small part of this production of food" in urban environments.

A final threat to food security identified was the economic hardship of small-scale farmers. Lotta recognised that "farmers are not getting paid well enough for the work they do." Whilst Norway's agricultural industry is largely supported by governmental subsidies, small scale farmers often fall through the cracks of the subsidy system. Nils believed that the economic strain on farmers may actually contribute to the adoption of practices which move away from his idea of sustainable agriculture; "I can see the problem, because when you're a farmer you need to have money and its perhaps more economical, better to use fertilizer and pesticides, but I think it is not the best thing." Iben, who had studied horticultural production at folk high school, was intimately aware of the discrepancy in agricultural support for small scale farmers and believed that the Norwegian government was more interested in supporting large monocultures over small, diversified farms. She

noted that her experience at school taught her that "you can't really rely completely on growing and selling food, you have to do several other [things] to have any income that would make it sustainable for, yeah, just living for yourself." She mulled over the idea that small scale production might not be the solution for food security in Norway "It's a big clash between the idealistic perspective on food production and what works." Iben still felt that supporting her local CSA was an important step in cultivating a sustainable food system saying: "I'm really glad that it is possible to be a part of a small-scale production even though it's not maybe the solution for food production in total."

Members expressed concerns around the security of their food in the face of food scares from political uncertainties as well as environmental uncertainties. In times of these uncertainties, members tended to look to their CSAs as safe havens and resources, to turn to or lean on as an assurance food security for themselves and their families. Likewise, CSAs were seen as a part of improving long term security at a regional and national level, a way to re-establish local food production and build a stronger foundation for future food system disruptions.

## 3.1b Motivating the shift from consumer to food citizen

Wilkins (2005) suggests that in order to practice food citizenship we must first think about and recognise the food system implications of how we eat and then take actions which will contribute to reducing and improving these implications. RQ1 explored the recognition piece of this practice by investigating the food system challenges which motivated members to join a CSA and, in this way, shift their behaviours to be more conducive with the making of sustainable food systems. Unlike other studies identifying motivations for participating in CSA, this study did not specifically seek to find motivations in hierarchy of importance, rather to extract motivations as they pertained to members knowledge of, and dissatisfaction with, challenges present within the food system. The findings showed that members were motivated to participate in CSA both internally, by new or existing knowledge of food system challenges, and externally by the occurrence of challenges which directly affected their sense of security.

Consistent with the findings of O'Kane (2016) and Lang (2005), members in this study showed concern for the environmental impact of food production and distribution. Due to the implications of packaging and transportation, members interest in organic foods was tightly bound to an interest in local foods. This finding was consistent with motivation studies done in the United States and in Norway (Hvitsand, 2016; Ostrom, 2007). As Hvitsand (2016) noted, in a Norwegian context this could be linked to the fact that Norway does not have a wide dispersion of natural food stores where members could easily gain access to such foods. Though members in this study did note that in recent years there had been an increased presence of organic and local foods in the supermarkets, this is likely due to a rising demand for organic and local products with the popularity of other AFN's like REKO Ringen (Lam, 2020). Nevertheless, in instances where members could locate these preferred foods, they were at times unattainable due to high market prices, causing many members to default on their preferences and make decisions based on affordability. This finding reflects one of the most prominent criticisms of conscious consumption practices, or citizen-consumerism, that the high costs of "niche" foods hinder the ability for many consumers to enact their values in the marketplace (Johnston, 2008; Lockie, 2009; Lozano-Cabedo & Gómez-Benito, 2017). This ultimately limits the transformative potential of purchasing power (Johnston, 2008).

Financially contributing to the dominant system only perpetuates other concerns raised by members. Members in this study clearly expressed dissatisfaction with the distribution systems and unsavoury distributors of the dominant food system, both in the context of an inability to practice sovereignty over their food and a growing disconnect from food. Bjune and Torjusen (2005) identified that within the conventional market, it is necessary for the consumer to put their trust in the food system. This includes the information provided by the supermarkets on labels or in media. However, trust is more readily cultivated through personal interactions with other people than with a market label such as the Øko-merket (Jacobsen et al., 2005). Unsurprisingly, members expressed a lack of trust in both the supermarkets and the labelling mechanisms, one member going as far as to refer to the Norwegian supermarkets as "the mafia." In this way, CSA members experienced the limitations of citizen consumerism as a means to meet their needs and values, causing them to seek opportunities to aim their efforts beyond purchasing power.

As a product of increased urbanisation, the supermarket has become the primary interface where individuals come into contact with the food system (Welsh & MacRae, 1998). This effectively disconnects people from the landscape in which food is traditionally produced and increases reliance on conventional food distribution networks. Unfortunately, the homogenized supermarket environment limits consumers understanding of the food system, contributing to what Carolan (2007) calls *epistemic distancing*. It is therefore unsurprising that members felt a lack of connection to their food in this context. Members seeking a greater depth of connection to food through CSA was consistent with the O'Kane's (2016) findings from participants of various AFN's. The process of questioning foods provenance is a product of members internally challenging the socially normalised practices of food procurement and was evident in this study as members sought to answer the question of "where my food comes from." This question spanned the who, how and where of their food's provenance and sought to close the epistemic distance between the consumer and their food.

The epistemic distance cultivated by the supermarket environment significantly hinders the individuals understanding of the complexity of the food system, leaving them to rely on blind trust that the system is operating for their best interests. Murdoch and Miele (2004) argue that the occurrence of "food scares" exposes the underlying complexity of the industrial food system and compromises this trust. They go on to suggest that this causes consumers to seek socially and ecologically traceable food sources which are considered more "trustworthy". Likewise, consumers begin to seek security in food by establishing new and more integrated "embedded relationships" with it (Murdoch & Miele, 2004). In this study, the food scares were experienced in the form of a pandemic and a drought resulting in destabilisation of the food system for consumers. The destabilisation served as an external force which caused members to re-assess their food procurement, effectively contributed to their motivations for joining a CSA, or their steadfastness in engaging in the CSA they belonged to. A recurrence of food scares both environmentally and socially bound, will likely only further the adoption and stabilisation of practices consistent with embeddedness in foods origins and production.

In accordance with Warde's (2005) interpretation of the making and breaking of practices, the CSA members interviewed found themselves internally questioning the conventions and norms of the current food system and re-assessing their practices within it. Recognition that supporting the dominant food system was contributing to environmental degradation, psychological disconnect, as well as reduced sovereignty over food caused members to internally challenge their own acceptance of the dominant industrial food system. Likewise, the external pressure of food scares in the form of reduced access to food caused members to seek alternative options which cultivated a sense of embeddedness and security. The culmination of these challenges and the opportunity for an alternative food procurement practice (a CSA in their neighborhood) allowed members to enact relational reflexivity. Members were triggered to disconnect from the aesthetic veneer of the mainstream food and supermarket environment in order to begin establishing new connections to their food based on their relationships to it.

Systems thinker, Donella Meadows (1997) proposes that the way to transform a system is not by trying to change your adversaries but by working with "the vast middle ground of people who are open-minded". The CSA members interviewed in this study certainly fell into the category of the "open-minded" middle ground. Even their participation in CSA was a dissent from the social norms of the dominant food system, but more importantly, their questioning process and concerns for the complex issues within the system serve as both the basis for, and the beginning of, a paradigm shift from consumer to food citizen.

Recognition and reflection is the first step, the next step is create a new system which addresses these challenges and aims for a more sustainable food future. We can contribute to that new system by actively participating as food citizens in its creation.

#### 3.2 The practice of food citizenship

Throughout the interviews and during participant observation four themes emerged as practices which members were engaging in on their CSAs. Those themes were: *Re-defining roles within the food system, acquiring new knowledge and skills, cultivating communities* and *enacting relational reflexivity*. The following section will present these themes as they relate to food citizenship in greater depth.

### Re-defining roles within the food system

- From consumer to "producer"
  - Working on the farm
  - Self-harvesting vegetables
- Democratic food citizens
  - Participating in on-farm governance
  - Acting as agents of change

Membership in each of the CSAs in this study required a contribution of a pre-determined number of hours (between 6-12 hours per season). These hours could be achieved through on farm labour, service on the board, working in a special project group or through administrative tasks dependent on the members ability, skills or interests. All of these routes to participation contributed to the operations of the farm and the production of food. For most members, participation at their CSA took the form of labouring on the farm during communal work hours, in working groups or in self-driven weeding, collectively or independently.

Participation on Norwegian CSAs most often occurs through *dugnads*. The concept of *dugnad* has strong roots in Norwegian tradition, one member even referred to it as "the cornerstone of Norwegian society." One CSA in this study was in its first year of operation, so the members invested a lot of time in infrastructure work which was not always fun or easy, but very necessary. Kari referred to it as "earth work" when she spoke of transforming a soggy field into a productive farm, saying; "Let's get this earth up and running and then next year we'll see what happens when it comes to food." Kari laboured on the farm with no expectation of a harvest in the first year, simply because she wanted to contribute to the future success of the CSA. Likewise, Olena appreciated the opportunity to, as she said; "get my hands dirty" by pushing wheelbarrows of soil around to build new beds. Another arduous and tiresome task, but as she saw it "It just takes time, but that is the time that is needed to do the work." These sorts of laborious tasks were common at *dugnad*, as members participated preparing the fields for production, maintaining pathways and social

areas and cleaning debris from the fields at the end of the season. In this way members, including Kari and Olena, engage in labour which does not prioritise their immediate interests, rather seeking to contribute to improvements on the farm to ensure fruitful future production.

Despite the arduousness of the tasks, it was common for members to "lose track of the hours" and enthusiastically labour well beyond their membership requirements. This is consistent with- and may be explained by, Hvitsand's (2016) finding that members of Norwegian CSAs assigned a high value to the act of contributing to food production. Which she suggests could by rooted in the longstanding tradition of communal work through dugnad, as well as the Norwegian values such as engagement with one's community and closeness to nature (Hvitsand, 2016). However, this enthusiasm stands in contrast to Ostrom's (2007) study in the United States, where members lacked interest in participating in farm work and preferred to join in fun or entertaining farm activities. Subsequently, one significant challenge for CSA farmers in Ostrom's (2007) study was the struggle to garnering members emotional and physical investment in their farms. Likewise, O'Kane (2016) felt that due to a lack of engagement with farm work, CSA members in her study did not embody a sense of food citizenship and appeared to remain disconnected from their food's origins. As DeLind (2002) notes, it is through our physical connection and collective work that we become embedded and invested in both place and the natural environment. It is this embeddedness which takes us beyond consumption and into citizenship.

In addition to labouring on the farm during *dugnads*, members of the CSAs in this study harvested their own vegetables on a weekly or bi-weekly basis (except for two members who would receive their vegetables by delivery). For Birgit, who was a member of a CSA which provided the option of self-harvest or delivery, the ability to harvest her own vegetables was a critical part of her membership; "I think it's a different experience for us who can travel up there [to the CSA] and go out in the [field] and pick our own vegetables, for me that's half the reason for being a part of it." Olena described the experience of pulling her own vegetables from the soil as "quite fantastic" saying; "it's cool to see that ... we can also create those things that you get in the store, but in different sizes and shapes." This degree of participation is not found through acquisition of food from a supermarket,

where decisions are made individually, food is selected from a shelf and food and people are almost entirely removed from the context of nature. Olena's excitement at the ability to re-create the "things that you get in the store" only emphasises the inherent disconnect between consumers and the natural provenance of their food stuffs, where the store has become the default, and the farm has become the novelty.

Though members were hesitant to refer to themselves as producers, they had clearly begun to adopt new and unconventional roles within their food systems. By immersing themselves in the landscape of the CSA and the work of food production, they developed new practices which moved beyond the role of consumer and into a more embodied food citizen. Through the lens of SPT, dugnads and working groups do not necessarily constitute a change in procedure or skill in food acquisition, as their inconsistency lends them to fill the role of a special event. However, self-harvesting one's own vegetables from the field brings an entirely new set of procedures to food acquisition, and when done on a weekly or bi-weekly basis is a regular and repeatable action, both creating and stabilising a new practice and a new role.

Beyond labouring on the farm and harvesting their own food, members participated in their CSAs by contributing to governance of the farm. All of the CSAs in this study utilised surveys to gauge members interests and satisfaction, as well they held meetings in which members could vote on relevant matters or discuss issues of importance to the farm. Stina, who had attended one annual meeting and one planning meeting at her CSA noted that the attendance was not significant, saying; "there are a few who show up and make it the little democratic flare, but it is a little disappointing that not more people show up." However, for Iben the value of the meetings was not in the ability to vote or discuss, she believed the importance of the meetings was for members to be present for the concerns or needs of the farmers, "there is also part of just understanding what [farming] really demands... at the meeting they talk about things that might need to change or things that have worked or haven't worked." When attendance is strong, this element inherently democratises food in relation to the CSA, creating opportunities for both members and farmers to communicate their wants needs and expectations, as well as cultivating transparency on behalf of all parties.

While participation in the organised democratic activities of the farms was low, members found other routes to democratising their food system, such as engaging in "spreading the word" about CSA. Nils, who had been concerned that farmers might opt to use chemical inputs to keep costs down, believed that spreading the word about CSA would help increase membership and improve economic viability of organic vegetable production. Likewise, Adéle found herself telling people (sometimes strangers) about her CSA when they would see her with overflowing bags of freshly harvested produce. She believed that talking about the CSA to as many people as she could was like "putting seeds in somebody else's mind" and said that "if one of them does something like [join a CSA] later on in their life I would consider that a success." Speaking adamantly of one's CSA, and the movement as a whole in the hopes of encouraging broader uptake, is a form of advocacy in food system transformation.

To some degree, membership alone can be viewed as an act of democratising the food system as it contributes to supporting the movement of CSA and with it the re-localisation of food. Katja who had a long-time interest in local food systems, found that CSA was a place for her to be "part of an international movement." she went on to say "it is finally actually a possibility for me to do something and not just read about it." From her perspective, participation in the CSA had impacts which reached beyond her local foodsphere and became a part of an international effort, taking the local to the global through solidarity of action. Likewise, for Paul participation in the CSA was a place to put his words into actions; "At least we are not just talking about it here ... those are actions, and simple actions, it is not really difficult to give some hours and a little bit of money to actually produce local [food] without destroying the ground." Boyte & Kari (as cited in DeLind, 2002) suggests that participation is the centre of democratisation, this is because the value is as much in the product of labour as it is in the relationships which arise from it in the form of responsibility, accountability and reciprocity.

Members cultivated new roles for themselves in the food system by participating in the production of their food, care for the land, and governance. In these ways members stepped beyond the role of consumer and literally got their hands dirty. Members also

adopted democratic roles by supporting the movement of CSA through their words and actions within their social circles and communities. The experience of adopting new roles within their food systems instilled a sense of responsibility in members, which kept them actively engaged in, and connected to the objectives of their farms as well as their own values. This participation is a key element of food citizenship and is a conduit to transformative actions.

### Acquiring new knowledge and skills around food

- Co-creation of knowledge
  - Learning from others
  - Experiential learning
- Developing new ways of interacting with food
  - Cooking with new foods
  - Food preservation
  - Seasonal meal planning

Participating in their CSAs and adopting new roles in their food system, necessitated the need for new skills while also creating platforms for members to cultivate knowledge and skills around food. In the case of dugnads, which were often led by the gardener or farmer, members had the opportunity to learn new gardening skills or ask questions directly to an expert. Katja recalled her fist dugnad at her CSA, during which she worked alongside the gardener who gave her some "basic knowledge" and skills around planting seeds and potatoes, saying "she taught me just basic stuff about how to grow potatoes which seems like an easy thing but if you haven't done it, there are many things you can do that will make [it] not work." In the case of Anne's CSA, where the 2021 season saw an abundance of questions around potato production, health and harvesting, the gardener shared some information about potato diseases with members through the groups Facebook page. Anne found this information so useful that she was compelled to share it with a friend outside of the CSA, saying "she has potatoes and it's her first year cultivating so, yeah. I actually spread the word from [the gardener]." This sort of knowledge exchange created an opportunity to transcend the separation between consumer and producer and offered transparency into the production of food.

Members also gained knowledge through their experiences of experimenting with new techniques or witnessing the development of their food on the field. This was very well communicated by Olena who's time at the CSA humbled her to how much she *didn't* know about food production "improving the soil quality is easy to say, but like actually being a part of the steps and hearing all this small comments here and there... just gives you an extra dimension." Stina found that she developed a greater depth of knowledge around "how vegetables look when they're growing" as she watched them change from indiscernible plants into familiar faces. She was very entertained by their physiological make-up and how it dictated when they were harvestable, "we plant the garlic [in the fall] and harvest it in a year's time, that's kind of cool, [and] that broccoli is a flower and you just nip it before it becomes the flower." Carolan (2007) found, those who were physically engaged in CSA, who could walk through their farms and participate in their foods production, knowledge became embodied and socially embedded.

Skills related to producing food or tending land are relatively uncommon in a food system which is dominated by supermarkets and pre-washed vegetables. It became apparent from speaking with members however, that familiar skills such as cooking and meal planning were being challenged and re-created during the membership experience. This was directly related to the diversity of vegetables available from the CSA, as Nils said "I have learned to make and eat vegetables I never have bought before." Learning how to use new foods from the farm often took place through co-creation of knowledge and knowledge sharing between members. This happened through the CSA Facebook pages and in the field as members laboured beside each other during *dugnad* or socialised during harvests. Katja, who didn't fear away from new vegetables in the garden said "I took home everything I was allowed to harvest" including swiss chard, which was "a new experience" for her. Katja received advice from another member on how to cook the swiss chard which she put into practice that evening, "I learned more about cooking as well actually and also about different ingredients for my meals." Katja, like many other members, found her fellow shareholders to be great resources for learning how to approach new foods from the farm.

As addressed by Welsh and MacRae (1998), one barrier to food citizenship is a loss of the skills and knowledge required to prepare foods from whole ingredients. This is due to an increasing societal reliance on the industrialised and processed foods (Welsh & MacRae, 1998). This skills and knowledge barrier was both experienced on the CSAs as members were exposed to new or unfamiliar foods and then challenged as they turned to each other as resources for new knowledge. This finding is similar to findings identifying community gardens as places where members exchange and preserve knowledge and skills with each other (Baker, 2004; O'Kane, 2016). In re-localising our food system, the foods that we commonly consume will inherently change from processed and packaged to whole and raw ingredients. Likewise, those ingredients will better represent regional and seasonal foods rather than supermarket imports such as tropical fruit, or unseasonal vegetables from faraway places. These results suggest that opportunities to cultivate interpersonal relationships around spaces of food procurement can play an important role in re-skilling food citizens for transformative food systems.

The exposure to new vegetables and the inherent seasonality of the CSA also impacted the way members approached their meal planning and influenced the way they ate, further recreating their practices in the kitchen. Decisions around what to have for dinner were no longer based on what one felt like eating, but what was available or about to "go off" in the fridge. Clara compared meal planning via harvesting from the list to selecting food from the store and found "it is two different approaches to plan your menu." Kari interpreted the CSA menu approach as "a 'make do with what you have' kind of mindset." This approach to meal planning and cooking was a pleasure for Nina who found that the CSA list inspired her to try new things and learn how to use them. Seasonality of food on the CSA also meant that members found themselves in cycles of abundance and leanness for different vegetables and had to learn how to preserve foods for short and long periods. Members noted how their freezers were stocked with excess zucchini, and shelves stocked with dried herbs, or canned jams and salsas.

The experiences members had exploring new ways of interacting with their food were reminiscent of the findings by Thompson and Coskuner-Balli (2007) qualitative study, in which the exploration of new foods could be seen as an enchanting experience for CSA

members. Noting that one member used the new and unfamiliar foods as a jumping off point to explore cooking dishes from other cultures (Thompson & Coskuner-Balli, 2007). However, in a much broader study, Ostrom (2007) found that unfamiliar vegetables were a significant reason for member drop out in CSAs in the United States. Even finding that members would replace the foods they didn't know with food from the grocery store. Adopting a new practice requires the practitioner to access the necessary resource (in this case a CSA), develop and utilise the necessary skills to complete the practice and then to consciously perform said practice (Warde, 2005). From this perspective, membership alone in the CSA is not enough to cultivate the practice of food citizenship. Rather, it must be accompanied by opportunities, as well as a willingness, to learn and explore new things. In Thompson and Coskuner-Balli (2007) study, as well as in this one, the members took it upon themselves to explore and develop new skills, whether from external resources or through their co-members right on the farm.

We can see from these interviews, that the CSAs visited in this study provided a space to develop the skills and knowledge necessary to participate wholly in one's food production and procurement. However, a barrier to this practice is the inherent seasonality of the CSA, many members expressed that outside of the harvest season their normal shopping habits returned, as they characterised their meal planning and eating during winter in completely different light. Of course, eating with a seasonal mindset requires recognition of change over time, but returning to an unseasonal supermarket environment for 7 out of 12 months does little to maintain the creation of new practices, especially when the "old" practices are so deeply engrained as societal norms.

Membership in CSA served as an inspiration and a source for developing new knowledge about food and its production. Likewise, it challenged members to learn how to cook, preserve and meal plan with new foods while finding routes to share knowledge with others within the CSA membership and beyond. This process of knowledge creation and exchange contributed to entrenching members in their food experience in new ways as well as within their communities. The following section will explore the ways in which members developed communities on the CSAs and how this perpetuated food citizenship.

#### **Cultivating Communities**

- Social communities
  - Diversity on the farm
  - Recreational and communication
- Communities of Work
  - Producer-consumer solidarity
  - Responsibilities and resources

Community Supported Agriculture is inherently rooted in the collective. The production of food is ideally done for and by a community of people who labour and make decisions as a whole. Likewise, opportunities to build social communities are abundant on CSAs, though are more plentiful in years which are not influenced by a pandemic. Through the interviews, I found that two types of communities were present on the CSAs, what I call *social communities* which encompassed the makeup of the community and activities, and *communities of work*, which spoke to collective action and responsibility.

For members, working on the farm served as a social atmosphere and a place to build a network of people who they may not otherwise have connected to, as Olena noted a place to "connect with people that are not similar to you." This notion that the communities built through CSAs were representative of a social diversity of people was echoed by Sara who enjoyed attending *dugnad* because in her experience "[you] get to know different people, both in age, different profession and nationalities." While CSA attracted people from diverse backgrounds, Paul did not feel that the membership was adequately "representative of Norway" noting that inclusivity and accessibility for immigrant communities was something he believed could be improved. While some members felt there was a diversity of representation in their CSAs, it is important to pay attention to Paul's interpretation of this. This study did not collect demographic information from members at the farms or of those interviewed, but other studies have consistently shown low socio-economic diversity in members (Perez et al., 2003; Pole & Gray, 2013; Pole & Kumar, 2015). Critics of CSA as a route to social justice have noted that the model is too similar to a neo-liberal market mechanism and doesn't do enough to mitigate the high upfront cost or time requirements

of participation (Allen, 2010) creating too large of barriers for some to reach. Social and economic justice and equal access (Lozano-Cabedo & Gómez-Benito, 2017; Wilkins, 2005) are critical objectives of food citizenship. These factors were not present on the CSAs in the form of accessibility, but it also appeared that there was little recognition or intervention from members to improve these elements.

Throughout the interviews members often referred back to their membership with their CSAs pre-pandemic to reflect on and long for the social elements of the CSA atmosphere. Katja noted, "you can't hang around with ten people [at] a table and fold and collect seeds in the way you did before." Despite the complications and limitations of the pandemic, members found many ways to continue socialising and developing communities on their CSAs, as the nature of a wide-open farm lent itself to safe gatherings. Members recounted small conversations in the field during harvesting and socially distanced events around the fire pit. Likewise, the CSA Facebook groups were constant sources of farm updates, idea sharing, "food porn", recipes and inspiration where both farmers and members could post. However, for the most part Facebook groups appeared to have questions from members directed towards the managers or farmers, updates from the farmers and photos of things "gone awry" in the field. On one CSA, an interviewee mentioned that members were not actually able to post in their Facebook group, and that she had sent a request to the farmer to share something for her. Despite this, nearly every member I spoke with was monitoring their respective Facebook groups and was able to recount something they had seen or shared on it.

For Anya, the social element of the CSA was the least appealing part. To her, community was "not sitting there gathering and chatting." Rather Anya felt community in the context of CSA was "to grow something together and reap the harvest." Anya and her husband practiced this growing and reaping with strident commitment, spending upwards of 4 hours a week on the CSA weeding and assisting the farmers. For her, the CSA was first and foremost a source of food, produced for and by the members in collective effort. Anya's perspective most directly aligns with DeLind's (2002) vision of community in civic agriculture; "Community is a function of necessity not of choice and civic engagement is a matter of personal sacrifice, of relinquishing self- interest to a group or common good. It

exists only in continual and often tiresome practice." What DeLind is referring to is what I have called communities of work, groups of relative strangers coming together to accomplish a common objective related to the productivity of the farm.

Communities of work manifested on the farm during *dugnads* mostly, when members would collectively take on large and laborious tasks such as building new garden beds, skinning the greenhouses, planting or composting. During these times, Kari noted that "with a few hands and a few people you can get a lot of work done." Sharing the labour is half the value of working in community, but it is the shared responsibility, in both tending to the farm and tending to a greater purpose, which is where the real clutch of collective work is.

Nina noted "I can come and I can work, I can harvest but it doesn't all depend on me"

Sharing the labour responsibilities on the CSAs meant that people of all abilities and strengths could participate in the operations of the farms. Work was adaptable and suited to each individual based on their needs and abilities, as Katja put it; "you can help out with other stuff and be a resource. Even the children are resources." Some members on the farm worked only within the limits of their expected hours, but most of those I interviewed worked well beyond these hours, motivated by their own pleasure and their sense of responsibility to get the tasks done and keep things running smoothly.

Within the literature, motivations for joining CSA are *not* strongly linked to the desire for community (Ostrom, 2007; Perez et al., 2003; Pole & Gray, 2013) even within a Norwegian context (Hvitsand, 2016). In fact, creation of community on CSAs has proven difficult and contentious, with farmers often struggling to garner members sense of responsibility and personal investment (DeLind, 1999; Ostrom, 2007). Likewise, members often supplant the task of community creation onto the farmer (Ostrom, 2007; Pole & Gray, 2013), among their many other responsibilities. This is another area in which the Andelslandbruk experience more accurately aligns with the experiences on community gardens, where the act of gardening together and with common purpose is effective at developing communities (Baker, 2004; O'Kane, 2016). As DeLind (2002) states, "[it is] in our individual and sweaty sacrifices that we begin to inhabit places in any deep and collective way. This sense of belonging, of "we-ness" and community, comes far less from choice than it does from necessity." Though members in this study did not actively organise events or opportunities

for community engagement, they did take it upon themselves to interact with each other, share knowledge and most importantly; show up. That sense of "we-ness" was apparent, most especially in the 3 community-run CSAs, when members spoke directly about their farms and their time spent on them.

Communities at the CSAs were flexible and adaptive, they were resilient in the face of covid, in some cases being the source of socialisation and recreation during a complex and isolated year. To some degree they embodied a broad spectrum of society, though still lacked adequate representation of the Norwegian population. The communities of work were built on a notion of shared responsibility and an "each to his ability" mindset where work was dispersed based on interest and ability.

#### Enacting relational reflexivity

- Embodied connection
  - Physical engagement
  - o Temporal
- Connection to Place
  - Work in place
  - Investment in place
- Interpersonal connections

Through the interviews, it became apparent that members were in the process of stepping away from the conventional understanding of food and its procurement and developing new understandings of the systems which dictated their eating. In doing so, members were enacting relational reflexivity (Murdoch & Miele, 2004) which allowed them to re-assess the value and quality of their food and its origins based on their relationships to it. This process was undertaken as members established new ways of connecting to their food, through embodied connection, connection to place and the creation of interpersonal connections.

Embodied connection was present in members through their experiences of working with the soil, harvesting their own food and getting "closer to nature". For Katja, it was an embodied connection which she gained from the combined knowledge of the origins of her food and experiences in harvesting it herself; "it's a totally different feeling to have a carrot that I know where it has been growing and I have taken it out of the soil." Katja compared this experience to purchasing organic food from the store where she would remind herself that the food had been grown on a farm, saying; "even if my head knows it, now my whole body knows it." Embodied connection was also prominent in the children at the CSAs, members noted that their kids not only enjoyed being on the farms and helping to harvest the vegetables, but that this experience changed the way they ate. Harvesting their own food aided in cultivating a connection to it and made them more inclined to consume vegetables they otherwise wouldn't like to eat. One member attributed this to her daughter having "a sense of ownership" over the food which she had pulled from the earth herself.

DeLind (2006) suggests that this element of connectedness is critical to the establishment of responsibility and loyalty to food and producers, and that it is through the embodied, lived and emotional connection that we develop a sustained sense of food citizenship.

Likewise, members experienced the time associated with food production and acquisition in a new way. Prior to joining the CSA, Katja had some general knowledge of how much time it took to produce food but the lived experience of food production from seed to harvest gave her a new perspective; "even if you know that... it takes some months to grow things... it really is an actual time span before the food is there." Members spoke of their interactions with the food from seed to harvest and then processing, saying this experience brought them a greater depth of connection to it. This degree of embodied connection on the CSAs is more consistent with the experiences of community gardeners (Baker, 2004; O'Kane, 2016; Turner, 2011) than with those of CSA members on farms outside of Norway (O'Kane, 2016; Ostrom, 2007). This is likely due to the entrenchment members of Norwegian CSAs experience as they engage in production, harvesting and decision making on their farms (Hvitsand, 2016).

The recognition of time and energy needed to produce vegetables through members own embodied experience resulted in them re-considering the value of their food. This was evident when members spoke of their aversion to wasting any of the vegetables from the CSA. They referred to the food as "treasure" and used words like "tragedy" and

"devastating" when they spoke of it going to waste in the fridge. Iben noted that "It feels like there is a lot of work behind every single piece of vegetable, so I really try to make the best of it." These findings were consistent with O'Kane (2016) who found that CSA members were very committed to not wasting food from their CSAs. Ostrom (2007) used the term "vegetable anxiety" to describe the way members felt when they couldn't use up their produce before the next delivery which was a common feeling for members in her study. The feeling of "vegetable anxiety" was certainly present on the CSAs in this study, and often manifested in members skipping or reducing their harvest for the next week.

Monique established a new relationship to her food by cultivating meaningful connection to place, as she would "promenade in the garden" in her spare time and came to recognise it as her own, saying she was proud of the food she harvested, as "it's come from my garden." Members spoke of their CSAs as places of pride, where they could bring their friends and family to visit or show people around. One member joined the CSA prior to moving to the neighborhood so she could begin to feel connected to the area and make her move there easier. Likewise, others found that their time on the CSA reinvigorated their neighborhoods for them, one member saying she felt that she was "falling more into the place around me." This degree of appreciation for place could be due to an entrenchment in the CSA, as DeLind (2002) notes, it is through entrenchment in place that we develop a sense of responsibility and care for said place.

Appreciation for and connection to place could also be related to the shared ownership element of the community owned CSAs. In this model, each membership fee not only affords the farms operational costs, but the lease or grants which make land occupation possible, meaning that these members are literally partial owners of the CSAs. It is important to note however, that none of the members from the privately owned CSA in this study felt strong connection to place. One member explicitly stated that she did not feel she had a share in the place of the farm, specifying that she felt "a part of the production of ecological vegetables." For these members the farm was clearly owned by (and the home of) the farmers and the CSA was only the operation which happened *on* the farm. Despite the fact that these members did not feel connected to place in the same way the community owned CSA members did, there was still clear evidence of a sense of

responsibility and respect to both the CSA and the farmers. Carolan (2007) emphasizes the importance of tactile space in reducing one's epistemic distance from food. For some of the members in this study that tactile space was a place they had a clear shared ownership over, for others it was simply a space where they had witnessed their foods production and maintained an epistemic connection to through solidarity with the farmers.

In addition to establishing physical relationships to food and to place members established interpersonal relationships with the farmers or gardeners. Though the divide between producer and consumer remains present In Norwegian CSAs, the lines are blurred as members work alongside farmers in the fields during *dugnads*. Not only do members stand in fiscal solidarity with their farmers, but they work in solidarity as well, often admiring them for their skills and revering them as sources of coveted gardening and food knowledge. This interpersonal connection and appreciation narrow's the divide, critically creating a climate of care and recognition for the labour and hardships of the producers. In this way, members and producers humanise an otherwise anonymous system, which is the first step to social and economic justice in the food system (Allen, 2010; O'Kane, 2016).

Having witnessed and embodied the time and "human resources" which are required to grow and process her food, Anne noted that the food at the supermarkets was actually quite cheaply priced. While most members spoke frequently of the high cost associated with purchasing their preferred food from the supermarkets, when referring to food from the CSA, cost was almost a null point. Price of membership was spoken about with little weight, other than to address its marginality in comparison to the diverse values gleaned from the CSA experience. This disregard for cost could also be due to the direct connection members had to the experience of growing and the needs of the farm. The economics of the CSAs are completely transparent to members and reflects the operational needs of the farm and a wage for the farmer and gardeners. However, it is not uncommon in annual meetings for members to decide to raise the cost of the membership to increase their farmers pay or to account for updates to the farm or equipment (J. Perotti, personal communication, 26/11/2020). Critics of the CSA model have asserted that the nature of purchasing a CSA share still operates within the neo-liberal food market, making it just another AFN for a niche product (Allen, 2010). This argument is predominantly from a North American context

and doesn't account for member integrated Norwegian model. However, it is important to note that while localisation of food systems and humanisation of food system actors has the potential to cultivate justice and equity, it does not automatically do so (Allen, 2010). One member noted that he felt the CSA was not adequately inclusive or representative of all members of Norwegian society. So, while members established a sense of care for and interest in social and economic justice for their farmers, justice work was limited by the bounds of the CSAs economic and social structure and did not necessarily disband into the broader community or the global context.

Through participation in activities on the farm, members establish new connections to their food and those who produced it. These connections manifested in their physical engagement, connection to place and interpersonal relationships which allowed them to reassess the quality and value of their food. The experience of the CSAs effectively removed food from the supermarket and aided members in overcoming the aesthetic veneer of it, allowing them a window into the reality of food production. The began to recognise value in every piece of their vegetables and in every hour of their time. This recognition is critical to cultivating food citizenship as it creates space for reflection and understanding with which we can move forwards and make decisions which aid in the creation of a more sustainable food system.

#### 3.3 Methods Discussion

While the data collection process was designed to triangulate sources in order to ensure validity of the data. This was done by using participant observation and then following it up with semi-structured interviews. Limitations to the participant observation phase were largely related to the amount of time I was able to spend on each of the studied CSAs and frequency with which I visited them. The CSA at which I was a member (Dysterjordet Andelslandbruk) inevitably received the most amount of visits. Other CSAs were visited between 2-3 times, and for significantly differing time spans. Proportionate visits may have reduced my own personal biases, as well as more accurately communicated nuances of each CSA. However, as this study was not a based on contrasting and comparing CSAs, and was

rather related to members personal values and experiences, my own personal bias would not have swayed the results significantly.

Additionally, within participant observation there is a risk of the researcher becoming personally embedded in the community they are researching, losing objectivity and ability to write analytically (Kawulich, 2005). While limiting the researcher's ability to remain removed from the situation this occurrence also potentially influences the situations or individuals the researcher is interacting with. In my context, the comfort and familiarity with which I work in a farm and garden atmosphere led people to at times assume I was in charge of the activity, and I sometimes found myself directing the members or giving advice rather than observing them and their actions. This could have influenced the interviews I held with members I had worked alongside by contributing to an already exiting power imbalance between myself and my interview subjects, potentially compromising natural conversation flow. When I reflect on this experience, I believe that the comradery built in the field, regardless of who was leading the activity, was valuable to creating an open and comfortable atmosphere during interviews, which likely resulted in collection of more honest and candid data.

Selection of interview subjects was done purposively to ensure I recruited engaged members. This was done during the participant observation visits to each CSA. Due to the inconsistencies listed above, I was more successful at recruiting interview subjects at some CSAs than at others. At CSAs where I did not recruit enough members, I turned to the Facebook groups, or in one case an email through the farmer, to request interviews. In this way I maintained the purposive sampling method, as those who were willing to speak about their food procurement and CSA engagement were most likely to respond, and those who didn't feel they had much to say, likely because they were not very engaged, would probably not respond. This purposive sampling did of course only collect engaged members and therefore evidence of food citizenship on the CSAs can only be related to this class of membership. It is unlikely that every member at a CSA is as engaged as those I interviewed and indeed, even within my sample group of members there was a broad spectrum of engagement represented. Therefore, any claims to the presence of food citizenship can only be made in relation to its existence and not in relation to its prominence.

Limitations to the interview process began even in the recruitment phase, during which I explicitly told members (or wrote in my Facebook posts) that I would be conducting the interview on the farm or over zoom, dependant on the comfort of the interviewee and the government restrictions at the time of our interview. This was done in an effort to eliminate barriers based on zoom literacy or social comforts around Corona-virus transmission, but likely alienated some members who were uncomfortable or unfamiliar using zoom. Additionally, doing the interviews in English may have been a barrier to some who were not comfortable communicating their experiences in English. Even for those who did participate, the interviews were often paused and interrupted as we navigated small language barriers which cropped up during the interviews. At other times members would push through with sometimes limited English vocabulary and might have missed critical concepts or words which may have altered the outcome of the data. In some instances, I communicated with my interviewees that they could use Norwegian words which felt most accurate or effective for them, and that I would translate them with the help of a native speaker later. This was somewhat effective and Norwegian words which were repetitively used by members such as "matjord" were kept within the text of the results. It is always a struggle to communicate across language barriers, even in a bi-lingual country such as Norway, there are some words and concepts which simply cannot be adequately translated. This is an unfortunate loss for this study.

Though all data collection methods were decided upon in an effort to ensure the most accurate and comprehensive collection possible, ultimately there will always be inconsistencies and flaws in any plan. In this case, likely my own naivete to the research process contributed to some of the afore mentioned flaws. Regardless, I believe the data that has been collected and the methods by which it was processed to be valid and reliable.

# 4.0 Conclusion and Implications

On the path to meaningful transformation, actors all along the food system will be integral to re-imagining and re-creating a system which is democratic, socially and economically just and environmentally sustainable. This includes the consumer, those who purchase and eat the food which is produced, processed, and distributed to fuel their daily lives. However, the role of consumer, is itself a function of the dominant food system, and one which does not allow for the re-imagining and re-creating which is so integral to cultivating a more sustainable future of food. The concept of food citizenship asks us to move beyond that limited frame of consumption and into an integrated, multi-dimensional role of engaged citizen. To be a food citizen is to act on our innate responsibility to local and global food systems through collective, democratic and environmentally minded actions. However, opportunities for these actions are not readily available at the supermarket checkout, nor are they sufficiently demonstrated at the farmers market booth.

Andelslandbruk, the model of Community Supported Agriculture which is gaining ground in Norway, offers a template for a new system. One in which consumers can step out of the limitations of "voting with your dollar" and enter into the role of producer, decision maker, community member and ultimately citizen. Through my research of membership on CSA in Norway, I found that members were motivated to participate in CSA both internally and externally as they recognised challenges within the dominant food system and sought to improve them. I identified practices occurring on the CSAs which were consistent with the objectives of food citizenship and which occurred through meaningful participation in operational activities and governance.

Through participation in on-farm activities, members created spaces for learning, knowledge exchange and skills development, effectively breaking down barriers to the practice of food citizenship. They narrowed the divide between themselves and the producers of their food, by adopting new roles within their foods production as well as by establishing relationships of economic and physical solidarity with the farmers and gardeners. Members also participated in the democratisation of their own micro-food system through governance of farming operations and the cultivation of transparency and

dialogue on the CSAs. They took this democratisation to the streets as they advocated for CSA and local food to their friends and neighbours. All of this was done through collective effort and with a sense of responsibility to the community and the broader food system, including the ecological impacts of their food choices and waste practices. Members expressed recognition of their responsibility to improve the challenges created by the dominant food system, and then actively engaged in efforts which contributed to those improvements.

While CSA in Norway cultivated many spheres in which members demonstrably adopted practices consistent with food citizenship, it did not necessarily facilitate social and economic justice beyond the farm boundaries, let alone in an international sphere. Of course, re-localising the food system will have some cost-shifting benefits of reducing reliance on imports and the resulting justice issues within the broader system. However, the inevitable return to the dominant market in the winter months hinders members in adequately addressing these issues. In order to improve the breadth of food citizenship in both global reach and temporal practice, CSAs would need to sufficiently inspire members to enact practices consistent with food citizenship throughout the entirety of the year. This could be done through cultivating connections with local producers of grain, meat or storage vegetables which are more suited to winter consumption and could contribute to reducing reliance on the global, import based food system. Likewise, year-round connections between members could aid in maintaining the feeling of responsibility and accountability which encourages sustainable practices. The catch to this is that CSA is as much shared farming as it is shared creating, and members themselves have a role in facilitating this connection and accountability.

It is in part the operational structure of Norwegian CSAs which encourages cooperation and participation from members beyond the fiscal solidarity and a seasonal commitment of the more internationally utilised CSA model. The Norwegian model not only presents opportunities for members to enact diverse practices which challenge the social norms of consumption, but effectively encourages members to do so through a sense of collectiveness, ownership and responsibility. Whether this is exclusively related to the operational structure of CSA in Norway, or to the Norwegian reverence for the spirit of

dugnad - and the cultural values which uphold it - is beyond the scope of this study. A contrasting and comparing of more internationally normalised CSA with the Norwegian Andelslandbruk would be an interesting focus for future research, through which we could better understand where the practices of food citizenship are truly rooted.

What I can say for certain, is that the members in this study embodied the role of food citizens as they actively participated in re-designing their food system. They did so by established new practices for food acquisition and governance, by working in collective effort towards a common goal of sustainable systems and by re-assessing the value and quality of their food. In these ways, they effectively overcame the lock-ins of the dominant food system and upheld their roles as food citizens in the transformation towards sustainable food systems.

### 5.0 Resources e

- Allen, P. (2010). Realizing justice in local food systems. *Cambridge Journal of Regions, Economy and Society, 3*(2), 295–308.
- Andelslandbruk Norge. (2020). *Andelslandbruk Norge* Retrieved June 1 from http://andelslandbruk.no/kart
- Andelslandbruk Norge. (2021). *Hva er andelslandbruk?* Retrieved June 1 from <a href="https://www.andelslandbruk.no/hva\_er\_andelslandbruk/introduksjon\_til\_andelslandbruk">https://www.andelslandbruk.no/hva\_er\_andelslandbruk/introduksjon\_til\_andelslandbruk</a>
- Anderson, M. D. (2013). Beyond food security to realizing food rights in the US. *Journal of Rural Studies*, *29*, 113–122.
- Ankeny, R. (2018). From food consumers to food citizens: reconceptualising environmentally\_conscious food decision\_making. In. Rowman & Littlefield International.
- Åsebø, K., Jervell, A. M., Lieblein, G., Svennerud, M., & Francis, C. (2007). Farmer and consumer attitudes at farmers markets in Norway. *Journal of Sustainable Agriculture*, 30(4), 67–93.
- Baker, L. (2004). Tending cultural landscapes and food citizenship in Torontos community gardens. *Geographical Review*, 94(3), 305–325.
- Baker, L., Gemmill–Herren, B., & Leipper, F. (2019). *Beacons of Hope: Accelerating Transformations to Sustainable Food Systems*. Global Alliance for the Future of Food. <a href="https://foodsystemstransformations.org/wp\_content/uploads/2019/08/BeaconsOfHope\_Report\_082019.pdf">https://foodsystemstransformations.org/wp\_content/uploads/2019/08/BeaconsOfHope\_Report\_082019.pdf</a>
- Bioversity. (2014). Bioversity Internationals 10-year strategy 2014-2024. Agricultural biodiversity nourishes people and sustains the planet.
- Bjune, M., & Torjusen, H. (2005). Community Supported Agriculture (CSA) in Norway–A context for shared responsibility. *Consumer Citizenship: Promoting new responses, 1,* 99–113.

- Blättel-Mink, B., Boddenberg, M., Gunkel, L., Schmitz, S., & Vaessen, F. (2017). Beyond the market—New practices of supply in times of crisis: The example community-supported agriculture. *International Journal of Consumer Studies*, 41(4), 415-421.
- Bryman, A. (2012). Social Research Methods (4 ed.). OUP Oxford.
- Carolan, M. S. (2007). Introducing the concept of tactile space: creating lasting social and environmental commitments. *Geoforum*, 38(6), 1264–1275.
- DeLind, L. B. (1999). Close encounters with a CSA: The reflections of a bruised and somewhat wiser anthropologist. *Agriculture and Human Values*, 16(1), 3–9.
- DeLind, L. B. (2002). Place, work, and civic agriculture: Common fields for cultivation. *Agriculture and Human Values, 19*(3), 217–224.
- DeLind, L. B. (2006). Of bodies, place, and culture: Re\_situating local food. *Journal of Agricultural and Environmental Ethics*, 19(2), 121–146.
- EMF. (2019). Ellen MacArthur Foundation, Cities and Circular Economy for Food.
- Engeseth, N. M. (2020). Cream of the crop? A study of consumers in the alternative food network REKO in Oslo and sustainable transitions in the Norwegian food system
- FAO. (2018). The 10 elements of agroecology. guiding the transition to sustainable food and agricultural systems.
- FAO. (2020). Enabling sustainable food systems: Innovators' handbook. Food & Agriculture Org.
- Francis, C., Lieblein, G., Gliessman, S., Breland, T. A., Creamer, N., Harwood, R., Salomonsson, L., Helenius, J., Rickerl, D., Salvador, R., Wiedenhoeft, M., Simmons, S., Allen, P., Altieri, M., Flora, C., & Poincelot, R. (2003, 2003/07/17). Agroecology: The Ecology of Food Systems. *Journal of Sustainable Agriculture*, 22(3), 99–118. https://doi.org/10.1300/J064v22n03\_10

- Gliessman, S. (2016, 2016/03/15). Transforming food systems with agroecology. *Agroecology and Sustainable food systems, 40*(3), 187–189. https://doi.org/10.1080/21683565.2015.1130765
- Gómez–Benito, C., & Lozano, C. (2014). Constructing Food Citizenship: Theoretical Premises and Social Practices. *Italian sociological review*, 4(2).
- Groh, T., & McFadden, S. (1998). Farms of tomorrow revisited. SteinerBooks.
- Gundersen, G., Steinnes, M., & Frydenlund, J. (2017). Nedbygging av jordareal. En kartbasert undersøkelse av nedbygging og bruksendringer av jordbruksareal. SSB\_report, 14, 2017.
- Hargreaves, T. (2011). Practice\_ing behaviour change: Applying social practice theory to pro\_environmental behaviour change. *Journal of consumer culture, 11*(1), 79\_9.
- Hassanein, N. (2003). Practicing food democracy: a pragmatic politics of transformation. *Journal of Rural Studies*, 19(1), 77–86.
- Haugen, I. (2019). What works?: learning and social inclusion initiatives at Norwegian community supported farms Norwegian University of Life Sciences, Ås].
- Hegerland, P. O. (2019). *Hvordan påvirkes konkurransesituasjonen i det norske dagligvaremarkedet av digitaliseringen?* Norwegian University of Life Sciences, Ås 1.
- HLPE. (2014). Food losses and waste in the context of sustainable food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome 2014.
- HLPE.  $_{(2017)}$ . Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome.
- Hoffman, U. (2020). How to cope with largely dysfunctional market signals for sustainable agriculture?
- . In Benedikt Haerlin & Hans R. Herren (Eds.), *Tranformation of our food systems*Zukunftsstiftung Landwirtschaft (Foundation on Future Farming).

- Holloway, L., & Kneafsey, M. (2000). Reading the space of the farmers market: a preliminary investigation from the UK. *Sociologia ruralis*, 40(3), 285–299.
- Hvitsand, C. (2016). Community supported agriculture (CSA) as a transformational act—distinct values and multiple motivations among farmers and consumers. Agroecology and Sustainable food systems, 40(4), 333-351.
- IAASTD. (2009). Agriculture at a crossroads: global report. *International assessment of agricultural knowledge, science and technology for development (IAASTD). Island Press, Washington DC.*
- IPCC. (2019). Summary for Policymakers. In: Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems
- IPES\_Food. (2015). The New Science of Sustainable Food Systems: Overcoming Barriers to Food Systems Reform. *International Panel of Experts on Sustainable Food Systems*.
- IPES\_Food. (2016). From uniformity to diversity: a paradigm shift from industrial agriculture to diversified agroecological systems. . *International Panel of Experts on Sustainable Food systems*.
- IPES-Food. (2017). Too Big to Feed: Exploring the Impacts of Mega-mergers, Consolidation, and Concentration of Power in the Agri-food Sector.
- Jacobsen, E., Torjusen, H., ODoherty Jensen, K., & Kjærnes, U. (2005). European consumers conceptions of the safety and quality of organic food.
- Johnston, J. (2008). The citizen–consumer hybrid: ideological tensions and the case of Whole Foods Market. *Theory and society, 37*(3), 229–270.
- Kawulich, B. B. (2005). Participant observation as a data collection method. Forum qualitative social forschung/forum: Qualitative social research,
- Kerr, R. B. (2012). Lessons from the old Green Revolution for the new: Social, environmental and nutritional issues for agricultural change in Africa. *Progress in Development Studies,* 12(2-3), 213-229.

- Koistinen, K., Teerikangas, S., Mikkilä, M., & Linnanen, L. (2017). Change Agents Engaged in Sustainable Transformation in the Finnish Food System. In C. Ludwig & C. Matasci (Eds.), BOOSTING RESOURCE PRODUCTIVITY by Adopting the Circular Economy (pp. 310–322). https://www.wrforum.org/wp\_content/uploads/2017/10/Ludwig\_2017\_WRF\_book\_FINAL.pdf
- Kooperativet. (2021). *This is how it works*. Organisation Retrieved March 20 from <a href="https://kooperativet.no/this\_is\_how\_it\_works/">https://kooperativet.no/this\_is\_how\_it\_works/</a>
- Kvale, S. (1996). *InterViews: an introduction to qualitive research interviewing*. Sage.
- Lam, A. (2020). Looking beyond individual behaviour: a social practice theory approach to understanding consumer drop out in REKO.
- Lang, K. B. (2005, 2005/08/02). Expanding Our Understanding of Community Supported Agriculture (CSA): An Examination of Member Satisfaction. *Journal of Sustainable Agriculture*, 26(2), 61–79. https://doi.org/10.1300/J064v26n02\_06
- Levkoe, C. Z. (2011, 2011/08/01). Towards a transformative food politics. *Local Environment*, 16(7), 687-705. https://doi.org/10.1080/13549839.2011.592182
- Lockie, S. (2009, 2009/09/01). Responsibility and agency within alternative food networks: assembling the "citizen consumer". *Agriculture and Human Values,* 26(3), 193-201. https://doi.org/10.1007/s10460-008-9155-8
- Lozano–Cabedo, C., & Gómez–Benito, C. (2017). A theoretical model of food citizenship for the analysis of social praxis. *Journal of Agricultural and Environmental Ethics,* 30(1), 1-22.
- Lyson, T. A. (2000). Moving toward civic agriculture. *Choices*, 15(316–2016–6502).
- Lyson, T. A. (2005). Civic agriculture and community problem solving. *Culture & Agriculture*, 27(2), 92-98.

- Madsen, K. H., & Streibig, J. C. (2003). Benefits and risks of the use of herbicideresistant crops. *FAO PLANT PRODUCTION AND PROTECTION PAPERS*, 245–256.
- Meadows, D. (1997). Places to Intervene in a System. Whole Earth, 91(1), 78–84.
- Milford, A. B., Prestvik, A., & Kårstad, S. (2019). Produksjon og omsetning av økologisk frukt, bær og grønnsaker gjennom alternative salgskanaler. *NIBIO rapport*.
- Moe, I. (2018). *Alternative food networks: the case of CSA in Norway* Norwegian University of Life Sciences, Ås ].
- Murdoch, J., & Miele, M. (2004). A new aesthetic of food? Relational reflexivity in the 'alternative' food movement. *Qualities of food*, 156–175.
- Nordbø, B. (2020). *Dugnad i Store Norske leksikon på snl. no*. Retrieved May 29 2021 from https://snl.no/dugnad
- Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, 16(1), 1609406917733847.
- O'Kane, G. (2016). A moveable feast: Exploring barriers and enablers to food citizenship. *Appetite*, *105*, 674–687.
- Okologisk–Norge. (2020, June 28 2020). *Andelslandbruk*. Okologisk Norge. Retrieved March 21 from https://okologisknorge.no/prosjekter/andelslandbruk/
- Ostrom, M. R. (2007). Community supported agriculture as an agent of change. *Remaking the North American food system, ed. C. Hinrichs, and T. Lyson, 99120*.
- Patel, R. (2009). Food sovereignty. *The journal of peasant studies, 36*(3), 663–706.
- Patton, M. Q. (2020). The global alliance formally adopts a theory of transformation

  Retrieved April 9 from <a href="https://futureoffood.org/insights/theory\_of\_transformation/">https://futureoffood.org/insights/theory\_of\_transformation/</a>
- Perez, J., Allen, P., & Brown, M. (2003). Community supported agriculture on the central coast: The CSA member experience.

- Pimentel, D. (1996). Green revolution agriculture and chemical hazards. *Science of the total environment*, *188*, S86–S98.
- Pole, A., & Gray, M. (2013). Farming alone? What's up with the "C" in community supported agriculture. *Agriculture and Human Values*, 30(1), 85-100.
- Pole, A., & Kumar, A. (2015). Segmenting CSA members by motivation: anything but two peas in a pod. *British Food Journal*, 117(5), 1488-1505. https://doi.org/10.1108/BFJ-12-2014-0405
- REKO\_ringen. (2021). Slik fungerer REKO ringen. <a href="https://rekoringen.com/slik\_fungerer\_det/">https://rekoringen.com/slik\_fungerer\_det/</a>
- Renting, H., Schermer, M., & Rossi, A. (2012). Building food democracy: Exploring civic food networks and newly emerging forms of food citizenship. *The International Journal of Sociology of Agriculture and Food, 19*(3), 289–307.
- Schensul, S. L., Schensul, J. J., & LeCompte, M. D. (1999). *Essential ethnographic methods: Observations, interviews, and questionnaires* (Vol. 2). Rowman Altamira.
- Scherr, S. J., & McNeely, J. A. (2012). Farming with nature: the science and practice of ecoagriculture. Island Press.
- Seyfang, G. (2005). Shopping for sustainability: can sustainable consumption promote ecological citizenship? *Environmental politics*, 14(2), 290–306.
- Shove, E., & Pantzar, M. (2005). Consumers, producers and practices: Understanding the invention and reinvention of Nordic walking. *Journal of consumer culture*, 5(1), 43-64.
- Shove, E., & Warde, A. (2002). Inconspicuous consumption: the sociology of consumption, lifestyles and the environment. *Sociological theory and the environment: classical foundations, contemporary insights, 230*(51), 230–251.

- Southerton, D., Warde, A., & Hand, M. (2004). The limited autonomy of the consumer: implications for sustainable consumption. *Sustainable consumption: The implications of changing infrastructures of provision*, 32–48.
- Stapleton, S. C. (2019). Urgenci: International Network of Community Supported Agriculture (urgenci. net). *Journal of Agricultural & Food Information*, 20(3), 196-205.
- Storstad, O. (2016). Individualisert aktivisme En studie av fenomenet andelslandbruk. Sosiologi i dag, 46(2).
- Syverud, G., Bratberg, E., & Almås, R. (2020). *agriculture in Norway*. Retrieved March 18 from https://snl.no/jordbruk\_i\_Norge
- Tennbakk, B. (2002). Cooperatives, regulation and competition in Norwegian agriculture.
- Thompson, C. J., & Coskuner\_Balli, G. (2007). Enchanting ethical consumerism: The case of community supported agriculture. *Journal of consumer culture, 7*(3), 275–303.
- Turner, B. (2011). Embodied connections: sustainability, food systems and community gardens. *Local Environment*, 16(6), 509-522.
- Warde, A. (2005). Consumption and theories of practice. *Journal of consumer culture,* 5(2), 131-153.
- Welsh, J., & MacRae, R. (1998). Food citizenship and community food security: lessons from Toronto, Canada. *Canadian Journal of Development Studies / Revue canadienne détudes du développement*, 19(4), 237–255.
- WHO. (2019). The state of food security and nutrition in the world 2019: Safeguarding against economic slowdowns and downturns (Vol. 2019). Food & Agriculture Org.
- Wilkins, J. L. (2005). Eating right here: Moving from consumer to food citizen. *Agriculture and Human Values*, 22(3), 269–273.

Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., & Wood, A. (2019). Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(10170), 447–492.

## **Appendix**

#### A. Contextualising the Norwegian Food System

In order to understand the rapid adoption and popularity of CSAs in Norway, we must first understand the nuances of the Norwegian food and agriculture system. Norway is characterised by a northern climate with long dark winters and short temperate summers. Geographically, it is a complex landscape of mountains and fjords, with only 3.7% arable land (Gundersen et al., 2017). These combined factors inherently make it a challenging place for vegetable production, therefore a majority of Norwegian agriculture is rooted in animal husbandry for the purpose of dairy or meat production (Syverud et al., 2020). Despite this, Norway has an incredibly long and proud history of agriculture and appreciation for agricultural landscapes around the country (Syverud et al., 2020). However, the number of farms in Norway is shrinking and those remaining are growing in size (Syverud et al., 2020), suggesting a high degree of aggregation under more intensive and automated management. Additionally, the agricultural workforce is both shrinking and ageing, with less young people taking over family farms (Syverud et al., 2020). Indeed it seems the days of the family farm are waning within the country. In order to support domestic production in all agricultural sectors, the federal government injects significant agriculture subsidies and collaborates with agricultural cooperatives to implement production regulations and set market prices (Tennbakk, 2002).

Agricultural cooperatives are the dominant actors within the Norwegian market (Milford et al., 2019). They are, in part, governmental agents, as well as farmer representatives with the aim of coordinating production through the use of a quota system and the sale of dairy, meat and vegetables. This ultimately allows them to control the product supply and thus reach target market prices (Tennbakk, 2002). Within the vegetable market there are two principal cooperatives, Gartnerhallen and Nordgrønt, who purchase produce from farmers and sell into wholesalers or retail chains such as BAMA AS or COOP respectively (Milford et al., 2019). While this system is designed to support Norwegian producers and in theory does offer a secure route to sale, reliance on a single buyer essentially acts as a market lock-in (Baker et al., 2019). The lock-in limits market accessibility for farmers who cannot produce

enough of one product, within the rigid quality standards of the mainstream vegetable market. Likewise, having a single buyer eliminates competition on the market and with it the possibility for negotiating the value of the product (Meld. St. 11. (2016-2017)). Additionally, farmers who sell into cooperatives are subject to a narrow set of quality standards regarding size and colour of vegetables, characteristics which may not be indicative of the nutritional value or taste of the vegetable (Milford et al., 2019). In this way, the cooperative system has the adverse side-effect of alienating small scale or diversified farmers (A. Devik, personal communication, 6/11/2020) (Bjune & Torjusen, 2005).

The stringent expectations within the cooperative system not only reward conventionally efficient production techniques such as mono-cropping and the use of automated equipment, but they also eliminate opportunity for consumer-producer relationships. Effectively reducing vegetables to mere consumables on the shelves of supermarkets where customers have little notion of their foods origin beyond the limited signage provided by the store. This reality is the predominant one in Norway with 96.2% of domestic food markets being controlled by 3 major supermarket chains (Hegerland, 2019). This has caused many Norwegian farmers to look for alternative routes to market and to re-imagine their relationships with their customers through the use of Alternative Food Networks (AFN) (Hvitsand, 2016).

Studies have shown that AFN's act to facilitate new relationships between producers and consumers based on trust, respect and shared values around food provisioning (Holloway & Kneafsey, 2000). Within Norway, AFN's consist of Farmers markets, which are also run through a cooperative based system called *Bondens Marked* (Åsebø et al., 2007); Cooperative buying clubs, which are owned a run by members to facilitate direct producer consumer sales through bulk purchasing (Kooperativet, 2021); and REKO ringen, which facilitates direct producer - consumer sales through a Facebook group and centralised pick up points (Engeseth, 2020; Lam, 2020). While fulfilling the need for alternative distribution networks and providing some diversity in food options, these AFN's do not present opportunities for meaningful engagement in or connection to production or governance, maintaining limitations on the individual's role to that of a consumer.

In an effort to improve agricultural production in Norway, the Norwegian government encouraged the implementation of the CSA model within the country. The model was adapted by a team of food systems thinkers and farmers to best meet what they believed to be the needs of the Norwegian consumers and producers (Bjune & Torjusen, 2005). In 2015, Oikos (Organic Norway) took on the responsibility of coordinating CSA farmers by offering guidance in starting and running CSAs and providing information for consumers and producers of CSAs (Okologisk-Norge, 2020). Since the onset of this effort in 2015, the presence of CSA on the landscape took a sharp rise and has been consistently and rapidly growing ever since (A. Devik, personal communication, 6/11/2020).

### B. Norwegian words and Acronyms

### Norwegian Words

#### Andelslandbruk

Cooperative Farming- the Norwegian equivalent of Community Supported Agriculture which follows the principles of (1) Transparency on agricultural decisions (2) Transparent economic activities (3) Shared harvest and shared risk (4) Participation of members and (5) Sustainable farming practices (andelslandbruk.no).

#### Dugand

Communal Work- A cornerstone of Norwegian society which addresses the need to get things done by calling on help from many hands within the community (Nordbø, 2020). Commonly practiced on Andelslandbruk as a means to get big tasks dome with help from the members.

#### Matjord

Food Soil- the arable land around Norway which is most suited to production of crops and is being degraded and lost through urban and industrial sprawl.

### Øko-merket

Organic Mark- The seal of approval on grocery items which denotes their organic status in the food market.

### <u>Acronyms</u>

CSA – Community Supported Agriculture AFN – Alternative Food Network SPT – Social Practice Theory NMBU – Norwegian University of Life Sciences

## C. Interview Guide

Interview Guide			
Aim	Thematic category	Interview Questions	Follow up questions
Background Information	Interviewee relationship to CSA	How long have you been a member at this CSA?	Have you been a member of other CSAs prior to this one?  Why did you change CSAs?
Member Engagement	Why people are engaging in the CSA	Can you tell me a bit about why you decided to join a CSA, and this one inparticular?	
		What do you like about being a member here?	
	How people are engaging in the CSA	In what ways do you participate in the CSA? (board, special events, dugnad, self-driven volunteering)	
		In what ways do you communicate with the CSA? (Email, social media, apps)	
Relation between engagement and Food Citizenship		the way you think about the food you eat? (Quality,	how?
	Analytical Competencies able to see contradictions and		If not, can you tell me a bit about how you do think about food?
	connections	Has being a member of the CSA influenced the way that you think about food production and agriculture (Agricultural practices, the industry?)	If not, can you tell me a bit about how you do think about food production and agriculture?
	Ethical Competencies Recognition of roles and responsibilities to the food system	How do you see your role within the food system?	In regards to the CSA, do you identify with any role here?
	Relational Competencies Identifying value in and prioritising multi-disciplinary collaboration	What is it like for you to work with and meet others at the CSA?	As a board member, during harvests, during planning sessions, annual meetings or dugnads
			Do you feel that it is benefical to build these relationships? in what way?
	Aesthetic and Spiritual Competencies how do people value food and the farm	What does community look like to you? do you think the CSA is a community?	What is your role within that community?
		What does this CSA, and your membership there mean to you?	
		When you take home your harvest each week, what does that food mean to you? (Organic produce, local business, delicious food, opportunity to share)	How does that meaning compare to food you purchase in the supermarket?
Leverage points		Are there ways in which you are benefiting from the CSA which you did not expect?	
		Has your experience at this CSA inspired you to engage (or consider engaging) in your community or local food network in any other way? (volunteering, helping neighbours with their gardens, teaching your kids etc.)	What about the CSA inspired you to act in this way?
		Are there any other lessons you feel you will take forward from this season?	
Additional		When did you begin to care about the food you ate?	

# D. CSA Breakdowns

Farm	Ownership	Members	Harvest	Location	Farmer(s)
Undeland Gard	Private	99	Self and pre	Ulvik	Katinka and Grzegorz
Linderud	Community	60	Self	Oslo	Christian
Dysterjordet	Community	125	Self	Ås	Håkon
Øverland	Private	550	Self	Bekkestua	Tikki

Andelsgård Engagement						
Andelsgård	Members	Communication	Volunteer hours	Dugnad	Special projects	Special events
Undeland	99	Weekly harvest and delivery list, emails for special offers, facebook group	5	Dugnads every 6-8 weeks, mini wednesday harvest dugnads (welcome 1-3 people to help out)	hosts Wwoofers	Hosts tours, educational opportunities
Linderud	60	Spond for communication and harvest, email list, facebook group, whiteboard	12	6-7 hour drop in style dugnads every few weeks	drop in style work hours facilitated by ever evolving to do list and communication through app	many on farm events facilitated by nærmilijøhage group. special events such as mushroom cultivation and compost training
Dysterjordet	125	weekly harvest list and news from the farm, facebook group,app for dugnad sign up	6	2 hour dugnads every few weeks		
Øverland	550	Weekly Newsletter, facebook group, instagram	6	Green Fingers	Working Groups (sub-groups of specific interests, applicable to volunteer hours)	Thanksgiving, Potato harvest

# E. Participant Observation Schedule

Date	CSA	Hours	Event
July 2 2020	Dysterjoret Gård	2 hours	Dugnad
July 10 – Aug 6 2020	Undeland Gård	30 hours/ Week	Volunteering on farm
August 18 2020	Øverland Gård	2 hours	Farm tour
August 20 2020	Linderud Gård	2 hours	Farm tour
August 26 2020	Linderud Gård	2 hours	Dugnad
Sept 3 - 7 2020	Undeland Gård	20 hours	Dugnad/ Volunteering
September 15 2020	Dysterjordet Gård	2 hours	Dugnad
September 19 2020	Linderud Gård	2 hours	Økouoka
September 20 2020	Øverland Gård	Cancelled	Høstetakkefest
September 22 2020	Øverland Gård	Cancelled	Dugnad
October 10 2020	Øverland Gård	2 hours	Potato fest
October 17 2020	Dysterjordet	6 hours	Potato fest

# F. Coding Sample

Initial Code	Secondary Code	Sub-Category	Catergory <u></u>	Theme -1
Don't buy L or O if its not available in quick fix	availability in quick fix	Food Preferences	Availability	barriers
Don't buy local or organic if it is too expensive	expense of local and organic	Food Preferences	cost	barriers
Work and obligations complicate things	work and obligations	Busy life	Time	barriers
Feel a part of a community	part of a community		community building	community
Contribute to farming but share the responsibility with others		shared responsibility	community building	community
Meeting other people on the farm	meeting others on farm	meeting people	community building	community
Being involved in the farm helps me to connect to my daughter who is engaged in agriculture abroad				community
Meaningful to know more about the food we eat	know more about the food I eat	connection to food	connection	cultivating knowledge
Experiencing and using new vegetables	exposure to new vegetables	new vegetables	knowledge	cultivating knowledge
I understand food production more now that I am a member	growing understanding of food production	food production	knowledge	cultivating knowledge
Me and my daughter are both learning about agriculture now	learning about ag	food production	knowledge	cultivating knowledge
Learned how to use different types of veg	learned how to use dif veg	how to cook with different veg	knowledge	cultivating knowledge
Learn from others about how to cook new vegs	cook new veg	learn from others	knowledge	cultivating knowledge
Learn from the gardener about herbs	learn from the gardener	learn from farmer	knowledge	cultivating knowledge
Meeting and learning from others on the farm	learning from others on farm	learn from others	knowledge	cultivating knowledge
Learning how to prepare food for storage	prepare food for storgae	new skills	knowledge	cultivating knowledge
Local food is better for the climate	local and climate change	local food	environment	distribution
Seeking local food	seeking local food	local food	food prefernces	distribution
I think about how far my food has travelled	distance my food has travelled	local food	food prefernces	distribution

