



Farming off the Food Crisis

Exploring Agroecological Practitioners in Ireland

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Farming off the Food Crisis – Exploring Practitioners of Agroecology in Ireland

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Abstract

The many negative environmental and socioeconomic issues tied to practices of industrial agriculture have led to increased interests in alternative food systems (AFSs) to improve the social and ecological conditions of food production. Agroecology as one example of an alternative agricultural practice seeks to achieve these goals but is highly context dependent. This thesis therefore seeks to understand how practitioners of agroecology in the specific context of Ireland formulate understandings of and implement agroecology to promote the achievement of AFSs. It does this by asking what motivates farmers to practice agroecology in Ireland, how farmers utilize agroecology in building AFSs, and how participants perceive constraints they face. To answer these questions the study involved seven participants in semi-structured interviews to collect data which was then analysed through thematic coding analysis. The findings show that personal experiences, knowledge and values of the participants influenced their motivations to practice agroecology and seek to create alternatives to the dominant food system. Moreover, the findings demonstrate how perceived difficulties are located in structural processes of existing food systems and how community can play a key role in the achievement of several agroecological principles. These findings are relevant for rural development in that they showcase the values, motivations and practices within farming which are perceived to be systematically disadvantaged and underrepresented by institutions in favour of mainstream systems in agriculture, but also highlights the ways that local food producers seek to overcome these challenges in their efforts to bring about more just and sustainable food systems.

Keywords: Alternative food systems, agroecology, alternative agricultural practices, alternative food producers, Ireland, rural development, agriculture

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1. Introduction

1.1 Problem Statement

The corporate food regime is characterized by long supply chains, market value and processes of globalization, standardization and commodification of food (McMichael 2013). It has led to a form of agricultural production in which agricultural produce is valued primarily as a commodity (ibid.). Such commodification of food overlooks social, cultural and ecological values of food as it is based solely on an input-output process aimed at production of goods for the highest profit (ibid.). In order to achieve globalization of the food economy, production has moved toward an industrial agriculture model which is based on usage of machinery, external inputs like pesticides, fertilizers, hybrid seeds and monoculture planting (McMichael 2013, Clapp 2016). However, the practices of industrial agriculture have brought a significant amount of environmental and social problems that necessitate urgent solutions (Palomo-Campesino et al. 2021, Anderson et al. 2019, Oteros-Rozas et al. 2019). The profit driven motives of the industrial food regime have often resulted in inadequate attention to environmental and social considerations. Thus, the practices of industrial agriculture have been associated with problems like climate change, soil degradation, air and water pollution, mass extinction, abandonment of rural areas due to the low profitability of small scale production and a loss of cultural heritage (Palomo-Campesino et al. 2021, García-Llorente et al. 2019, Oteros-Rozas et al. 2019). According to Reid (2014), the agricultural sector is the biggest threat to biodiversity. Agricultural production uses around 70% of the world's freshwater supply and agricultural deforestation is responsible for an astonishing one fifth of human induced greenhouse gas emissions on a yearly basis (ibid.). Apart from threatening the environment, the dominant agricultural system also places pressure on societies. McMichael (2013) explains that through the processes of “intellectual property protections, agribusiness centralization and subsidization, and private quality standards for global retailing” (ibid.:60) producers are forced to adopt standardized practices. Those unable to abide by the rules and standards imposed by the dominant food system often face “displacement and dispossession” of the ability and means for food production (ibid.).

Due to the increased awareness and concern about these issues there is a growing number of alternative food movements (AFM) that promote alternative food systems (AFS) which aim to improve social and ecological well-being around food production (Clapp 2016, Grauerholz and Owens 2015). These movements are opposed to the industrial food production system and are focused on the well-being of people, animals and the environment (Grauerholz and Owens 2015). AFMs often emphasize local food production and more personal, face-to-face interaction between food producers and consumers (ibid.). According to Cleveland et al. (2014) “advocates for alternative food systems often seek to transform the mainstream system toward the goals of economic and social justice, improved nutrition, and environmentally nurturing production methods.” (ibid.:282). In these ways AFMs have made particular use of ideas relating to the social and solidarity economy (SSE) which supports “efforts to craft new ways of producing and distributing food that are fairer for producers, healthier – and sometimes cheaper – for consumers, better for the planet and beneficial in terms of social or community cohesion” (Utting 2015:21). One example of a food movement which promotes a more equitable and sustainable food system is food sovereignty. La Via Campesina, an international peasant organization coined the term “food sovereignty” which can be defined as “the right of a community to determine its own agricultural and food path separately from the global food trading system” (Clapp 2016:34).

One prominent alternative food strategy that seeks to achieve these goals is agroecology (Nyéléni 2015). Its “ecologically sound and sustainable methods of farming and food provisioning are projected as an integral part of the vision for food sovereignty” (Pimbert 2018:14 see La Via Campesina 2007). It has been said that “there is no food sovereignty without agroecology. And certainly, agroecology will not last without a food sovereignty policy that backs it up” (Pimbert 2018:15). Agroecology has a wide focus on a whole food system encompassing food production, distribution and consumption. Therefore, it is defined as “the integrative study of the ecology of the entire food system, encompassing ecological, economic and social dimensions...” (Pimbert 2018:13 see Francis et al. 2003). Thus, agroecology does not stop at the farm level. Instead, its ideals are focused on the whole food system. The transdisciplinary nature of agroecology is reflected in the fact that it is considered as a practice, science and a social movement (Wezel et al. 2018). As a science agroecology is usually defined as “the ecology of the food system” (Wezel et al. 2020:2). On the other hand, as a practice, agroecology proposes low input agricultural practices which aim towards healthy and balanced agroecosystems. Lastly, as a social movement, agroecology “defends smallholders and family farming, farmers and rural communities, food sovereignty, local and short marketing chains, diversity of indigenous seeds and breeds, healthy and quality food” (Wezel et. al 2018:2). Moreover, agroecology is practiced through alternative food networks which are based on local food production and

consumption, traditional knowledge and ecologically sound farming practices (Pimbert 2018, Anderson et al. 2021). Despite this connection, the literature on agroecology has rarely discussed the realities of practitioners of agroecology in creating and sustaining new spheres of AFS.

In order to address the ecological and socioeconomic crises tied to the current food regime it would be helpful to contribute towards understanding the limitations and opportunities of agroecology as a way of combating this crisis, by gaining more knowledge about the ways that agroecological farmers create AFS through practices on the ground. Hence, this study seeks to analyse agroecological farmers in Ireland by looking at how their implementation of real world alternative agricultural practices is reflective of their personal qualities, values and experiences. To better understand how AFSs are characterized by and reflective of the participants personal qualities, values and experiences, this study will make use of the concept of SSE to tie their personal characteristics to a specific logic of economic activity. The understanding which I hope to contribute to, that of how people adopt and apply alternative agricultural practices in different contexts, can help identify ways in which AFSs could be supported in other places and contexts. In the words of Clapp (2016) “...local level food initiatives that seek to provide alternatives may be difficult to scale up precisely because the global food system creates conditions that push against those efforts. In other words, both locally specific studies and global overviews are needed to gain a comprehensive picture” (ibid.:20). This thesis seeks to contribute to creating locally specific knowledge by analysing the realities of farmers who are trying to use agroecology in order to operate an AFS. Additionally, it is helpful to analyse actors in specific sites if we want to gain more knowledge about possible difficulties and benefits of agroecology when applied in various contexts. This is supported by the notion that agroecology is context dependent and although its principles can be universally applicable, the practices which contribute towards the realization of these principles need to be adapted in a site specific way (Anderson et al. 2019, Nicholls et al. 2016, Altieri 2002, Wezel et al. 2018). The purpose of this thesis is to motivate further context-based research regarding alternative agricultural strategies as a way of developing food systems which provide alternatives to the corporate food regime.

1.2 Aim and Research Questions

This study seeks to uncover how agroecological farmers in Ireland are motivated to practice agroecology, how such practices lead them to develop alternative food systems (AFS), and which difficulties they confront throughout this process. Thus, this study ought to first explore what motivates practitioners of agroecology in Ireland to farm in such ways. Further, it aims to better understand how the methods

employed by agroecological farmers may contribute to the creation of AFSs through agroecology. Lastly, the study aims to uncover the difficulties which alternative farmers perceive as hampering their success as practitioners of alternative agricultural practices.

The following research questions will guide the research process during the study in order to achieve these aims:

1. What motivates farmers to practice agroecology in Ireland?
2. How do study participants seek to build alternative food systems through agroecology?
3. How do participants perceive difficulties which they face when trying to implement alternative agricultural practices?

1.3 Thesis Outline

This thesis is structured as follows. The background firstly provides a literature review which situates the thesis within relevant fields by concentrating on studies regarding alternative food systems, alternative farmers and agroecology. The background is then followed by the context of the study area. Here, I first situate agroecology within the wider, European context after which I will move on to the narrower context, that of Ireland. The fourth section deals with theoretical perspectives and analytical concepts. Specifically, it concentrates on the theory of phenomenology, and the concepts of agroecology and social and solidarity economy. The fifth section introduces the methodology of this study. This section includes the sampling and profiles of participants, discusses ethical considerations, the researcher's role, data collection and analysis. The sixth section provides a detailed analysis in which the main findings are presented and discussed in light of the chosen theories and concepts. Following the analysis, the discussion summarises the main findings and connects them with the research questions while also highlighting the importance of this study in the context of rural development. The final section provides the concluding remarks.

2. Background

I will now further explain the context within which agroecology finds itself, that of alternative food systems (AFS), and follow this with a deeper explanation of agroecology itself. I will then situate my thesis amongst similar literature by recapping findings from related studies and emphasising general conclusions which may be useful for understanding the findings of my thesis.

A food system is described as “the networks and processes associated with the provision of food in a given community or area. This includes the cultivating, harvesting, processing, storing, packaging, transporting, marketing, cooking, and ultimately, the disposing of unwanted or wasted food” (Zerbe 2010:7). The mainstream, or industrial food system is one type of food system characterized by “large scale, highly capital-intensive, specialized production, centralized and vertically integrated processing and marketing networks, and by long-distance transportation” (ibid.:8). The negative effects on ecological and social well-being associated with the activities within the mainstream food system prompted a great interest in literature on topics of alternative food systems or networks (AFS) (Tregear 2011, Nousiainen et al. 2009). Such alternatives are in many ways contrasting to the mainstream food system as they are focused on localized, short supply chains which empower and bring food producers and consumers closer together (Tregear 2011, Nousiainen et al. 2009). There are various examples of AFSs such as community supported agriculture (CSA), farmers’ markets (FMs), and alternative forms of agriculture such as organic or permaculture farming (Tregear 2011). AFSs are said to localize short supply chains which then incorporate natural and cultural features of the locale (Tregear 2011 see Ilbery et al. 2006). Also, AFSs are claimed to provide economic viability for actors involved in the system, as farmers receive higher profits for their efforts while consumers receive higher value for their money (Tregear 2011 see La Trobe 2001). However, some of the assumptions about AFSs are highly debated in the literature and call for more empirical evidence. For example, there is an assumption that localized food systems provide more socially just and ecologically sound results simply due to the geographical scale of such systems (ibid.). This assumption has been debated among scholars (Tregear 2011 see DuPuis and Goodman 2005) as they see the concept of localization often overly idealized (ibid.). Moreover, buyer-seller

relationships in AFSs (especially in the examples of FMs) are explained as highly positive as producers and consumers are brought closer together (ibid.). Nonetheless, there is a lack of focus on potential problems and negative aspects of direct buyer-seller relationships within FMs, such as manipulation or exploitation (ibid.). Thus, even though there is ample evidence about positive effects and opportunities which AFSs are able to offer, some aspects and assumptions around the term are debated and demand further research. Nevertheless, issues tied to the mainstream food system have resulted in an increased focus on alternative, more sustainable agricultural practices which use natural resources more efficiently and are aimed towards social and environmental benefits (Piñeiro et al. 2020). Overall, sustainable agriculture suggests “less specialized farming, requiring mixed systems of crops and livestock to reduce dependence upon purchased fertilizers” (Robinson 2009:1760). There are various types of alternative agriculture, such as permaculture, organic farming, agroecology, regenerative farming, etc., which claim to use alternative farming practices (ibid.). However, the adoption of such alternative farming practices has been very low in many countries (Tey et al. 2013). According to Piñeiro et al. (2020) the adoption of these practices “usually requires concrete incentives, significant effort from farmers and the support of governments and public-private partnerships at national and local levels” (ibid.:809). A lot of research has been conducted about the factors influencing farmers’ choices of agricultural practices implemented on the farms (Lincoln and Ardoin 2015). These factors vary from personal values, social and environmental pressures, economics, etc. (ibid.). Several recent studies (Aare et al. 2021, Drottberger et al. 2021, Palomo-Campesino et al. 2021, Jouzi et al. 2016) portray some of the values, motivations as well as challenges faced by alternative food producers who practice a more socially and environmentally friendly mode of agriculture, including agroecology.

Agroecology, as an alternative and more sustainable agricultural practice is directly opposed to industrial agriculture. Although termed back in 1928, agroecology gained its popularity in science in the 1970s (Palomo-Campesino et al. 2021) and it was in the 1990s when it incorporated considerations of entire food systems (Anderson et al. 2019, Anderson et al. 2021 see Francis et al. 2003). Emphasis on rights of food producers, traditional and indigenous knowledge, and food sovereignty are at the core of agroecology (Anderson et al. 2019). Agroecological management contributes towards the realization of processes such as water and soil conservation, closed energy flows or organic matter turnover which are “key for maintaining agroecosystem’s health, productivity and its self-sustaining capacity” (Nicholls et al. 2016:2). Moreover, agroecology is more than a simple set of alternative farming practices. Instead, it has a transformative character as it aims to completely change industrial agriculture by moving the food system away from globalized, corporate led, fossil fuel based food production

(Altieri & Toledo 2011). Agroecology has been promoted by the Food and Agriculture Organization (FAO) as a solution that is able to deal with world hunger in a way that does not compromise natural ecosystems (Palomo-Campesino et al. 2021).

This study is situated within fields of literature which discuss the motivations of alternative farmers, how agroecological farming creates AFSs, and what unique barriers such alternative farmers might face. For example, Drottberger et al. (2021) uncover values, motivations, and barriers that Swedish alternative food producers face when challenging the dominant agri-food system. Specifically, one of the aims of the study was to analyse the potential of these food producers to change the mainstream food system. Study participants are engaged in market gardening which is part of a global agroecological movement. The findings show that the participants expressed a financial factor as an important part of their commitment to alternative food production as they need to provide for themselves and their families. However, financial factors were mentioned only as a prerequisite to continue with market gardening. Instead, the participants' intrinsic values were mentioned as a primary reason influencing their actions. For example, led by ecological and social values, the participants sell their food directly to the customers while marketing their produce over social media channels or through word of mouth to avoid having contact with any mainstream food system actors. Participants are then able to shorten the food miles thus fulfilling their ecological objectives while also having a direct, personal relationship with their customers who they see as key partners. The study further portrays their use of agroecological practices as an act opposing the dominant food system and a decision based on their environmental values. The participants' main ambition is to be part of a solution for a more sustainable food production which prioritizes ecological and social benefits over economic gains. Additionally, the findings also show that participants feel they do not receive adequate support for their efforts. From their experience financial support and education is mostly directed and adapted for large scale industrial food producers. Among other things, the study concludes how the lack of targeted support for small scale food producers hinder their success in achieving social and ecological innovation in the food system.

Furthermore, Aare et al. (2021) analyse barriers in diversified farming in the Global North by interviewing Danish farmers implementing principles of agroecology. This study found that challenges impeding the transition towards diversified farming are mostly situated outside of the farming management system. For example, there is a need for diverse knowledge if farmers wish to implement diversified farming practices. Given that support is oriented towards standardized types of production, it therefore neglects farmers who require a broader spectrum

of knowledge in order to practice their specific form of farming. Because of this neglect, the study finds that these farmers are disadvantaged in regards to conventional farmers. This example highlights the importance of systems of knowledge support for alternative farmers. Moreover, the study finds that state policies do not support diversity in agriculture. One challenge that the study describes is how legislation is influenced by lobbyism from conventional farmers thus posing a difficulty for alternative farmers to have their interests represented. These findings highlight that alternative farmers struggle to make progress in a context within which support is not balanced among food producers.

Relatedly, Jouzi et al. (2016) provided an analysis of challenges of organic farming in the context of small scale farmers in developing countries. Here again, a lack of adequate education and research is mentioned as a challenge for small scale alternative farmers. Organic farming is explained as a knowledge intensive farming method and there is a lack of formal education for farmers in developing countries, especially focusing on appropriate agroecological practices. Additionally, a lack of access to the market is also mentioned as a difficulty in this study as supermarkets hold a majority of power in the food market and require certain conditions in terms of quantity, quality and timeliness which organic small holders find hard to fulfil. This study then also brings to the fore the role of market characteristics in affecting the ability of alternative farmers to progress.

3. Context of the Study Area

I will now give a description of the context of agroecology in the settings of Europe and more specifically Ireland, in order to highlight contextual trends and challenges. Furthermore, I will provide the contextual position of several organisations with which the participants of this study are affiliated.

The concept of agroecology is not extensively discussed in Europe and its level of development and the meaning of it varies between European countries (Wezel et al. 2018). Instead, much agriculture in Europe is based on intensive agriculture and is focused on producing food for the European population and for exporting (Wezel et al. 2018). Unsurprisingly, this industrialized agriculture has led to many environmental and social problems in Europe including a loss of biodiversity, soil degradation, water pollution and decline of farm numbers (ibid.). According to the research conducted by Wezel et al. (2018) the major challenges to agroecology in Europe are: lack of common definition of the concept, lack of integration of agroecological knowledge in education, lack of funding, lack of supportive policies, the perception that agroecology is unproductive, lack of actions at the food system levels and co-optation of the term.

The situation in Ireland aligns with many challenges to agroecology present on the European level. For example, one obstacle for agroecology in Ireland is the lack of knowledge about the topic (Blaix 2020). Many farmers who even practice farming that incorporates agroecological principles would not call themselves agroecological as they are not informed about the concept (ibid.). Moreover, agroecology has been neglected by the Irish government and therefore no funding goes into research or for support of agroecological transition on a national level (ibid.). Lack of funding combined with aggressive competition from agri-food industries that are able to dictate production and pricing of food makes agroecological produce expensive and pushed into niche markets (ibid.). However, although rare, there are some agroecological initiatives in Ireland.

For example, the grassroots farmer led organization Talamh Beo and non-profit initiative Farming for Nature share some of the members and advocate for food sovereignty but also agroecology. Among other things, Talamh Beo advocates for

a food system that: “improves the health of the environment in which we live, meets the challenges of climate change and ecological decline, improves the ability of future generations to provide for themselves and protects the wellbeing of people here and around the world” (Talamh Beo 2022). Moreover, Talamh Beo is the only organization in Ireland that is part of the European Coordination Via Campesina which is part of La Via Campesina (ibid.). Therefore, members of Talamh Beo are part of the international movement working, among other things, for agroecology. On the other hand, Farming for Nature is an independent, not-for-profit initiative that encourages and acknowledges farmers who are ecologically oriented and are using or wish to use farming practices that enhance biodiversity (Farming for Nature 2022, Blaix 2020). Farming for nature provides resources, advice and activities for sustainable farming practices (Blaix 2020). The initiative has also created a network of farmers who can serve as role models and share their knowledge and experience. Also, by promoting agroecological farming practices, the initiative shows farmers’ passion for nature to the general public in order to counter ideas of farmers as people who do not care about nature (ibid.).

There is another quite unique example of an initiative for more sustainable living in Ireland. Cloughjordan Ecovillage is Ireland's first ecovillage created and inhabited by environmentalists and like-minded individuals. It is part of the Global Ecovillage Network which explains the concept of ecovillage as “an intentional or traditional community using local participatory processes to holistically integrate ecological, economic, social, and cultural dimensions of sustainability in order to regenerate social and natural environments” (Kirby 2020:288). Cloughjordan ecovillage has its food system situated on Cloughjordan Community Farm (CCF). The farm is managed by two full time farmers who apply ecologically sound farming methods.

Such examples, however, do not reflect the reality of agriculture in Ireland as more than a half of farms are focused on specialized beef production (Department of Agriculture, Food and the Marine 2021). The Irish agricultural sector is facing many environmental challenges including the effects of climate change, water and air pollution and the loss of biodiversity (Government of Ireland 2021a). The European Union has acknowledged the importance of agroecology for sustainable transition in their Farm to Fork Strategy, a central strategy for achieving the European Green Deal which aims to make Europe the first climate-neutral continent (EU 2020). However, Ireland’s Common Agricultural Policy (CAP) has been criticized by Ireland’s largest environmental advocacy organization - Environmental Pillar for not taking enough actions towards these objectives. According to them, actions and measures present in Ireland’s CAP Strategic Plan fail to address what is needed to combat the biodiversity and climate change emergency on farmland (Environmental Pillar 2021a). Food Vision 2030 is another

document that illustrates a strategy for Ireland's sustainable Agri-Food Sector. However, this document is also heavily criticized by Environmental Pillar (2021b) which calls it "another detrimental blueprint for agriculture" and points out many of its weaknesses. The vision is further criticised for failing to address the multiple crises imposed by the agricultural sector (Environmental Pillar 2021b). Although the agricultural sector is Ireland's biggest contributor to greenhouse gas emissions, contributing to over a third of the total emissions (ibid.), the core of Ireland's agriculture remains to be grass based livestock production and there is no sign of Ireland's intent to change that in any foreseeable future (Government of Ireland 2021b).

4. Theoretical Perspectives and Analytical Concepts

In this section I will outline the theoretical perspectives and analytical concepts which inform my study. I will first focus on explaining the limited role that phenomenology plays in my research as a theoretical guide for understanding how participants' values, experiences and knowledge inform their actions. This will be followed by an introduction to, and an explanation of the principles of agroecology which will play a key role in my study. Finally, I will introduce the Social and Solidarity Economy (SSE) as a concept which will further inform discussions of alternative food systems.

4.1 Phenomenology

Phenomenology tries to understand how “people see, perceive, understand, experience, make sense of, respond to, emotionally feel about and engage with, particular objects or circumstances” (Inglis & Thorpe 2012:86). Phenomenology also deals with actions. It analyses how consciousness and perceptions of surroundings influence how people act. It is therefore very actor oriented. It paints the picture of “*everyday life* – the ordinary, mundane contexts in which people operate” (ibid.:86). Moreover, the idea of practical consciousness is at the centre of sociological phenomenology. Practical consciousness is a state in which people think and act in a commonsensical way. However, the limitation of phenomenology is that it is completely actor-oriented, which means that it does not take into account the social structure and power relations that might influence the individual(s)’ perceptions, thoughts and understandings. In the words of Inglis and Thorpe (2012) “the key absence in phenomenological perspectives are their alleged downgrading or complete ignoring of questions to do with social hierarchy and inequalities of power” (ibid.:105).

A phenomenological perspective was chosen due to its fit with the aim of the study. It is exactly because this approach deals with actor specific ways of thinking and acting that it is so well suited to uncover personal viewpoints and actions of participants. Furthermore, since phenomenology is concerned with how people

engage with the world around them, it allows me a clear pathway to focus on contextual questions regarding the implementation of agroecology in a specific area. It further complements my use of agroecology in two ways. Firstly, seeing as the meaning and practice of agroecology is context dependent (Wezel et al. 2018, Gallardo-Lopez et al. 2018) phenomenology allows me to explore the people within a specific context. Secondly, since phenomenology is concerned with how thinking creates actions, it will help me unravel how actions are influenced by certain ways of thinking. This helps me to analyse the context specific nature of agroecological practices as although actions might be different, the thought processes and principles behind are sometimes more important.

4.2 Agroecology

The principles of agroecology consist of six ecological principles for achieving “biodiverse, energy efficient, resource-conserving and resilient farming systems” (Nicholls et al. 2016:4). These principles can be achieved through various strategies and farming practices which are often knowledge intensive and dependent on the socioeconomic and biophysical situations of the actors who implement them (ibid.). The following table presents these ecological principles.

Table 1: Ecological principles of agroecology (Nicholls et al. 2016)

1. Enhance the recycling of biomass, with a view to optimizing organic matter decomposition and nutrient cycling over time
2. Strengthen the “immune system” of agricultural systems through enhancement of functional biodiversity – natural enemies, antagonists, etc., by creating appropriate habitats
3. Provide the most favorable soil conditions for plant growth, particularly by managing organic matter and by enhancing soil biology activity
4. Minimize losses of energy, water, nutrients and genetic resources by enhancing conservation and regeneration of soil and water resources and agrobiodiversity
5. Diversify species and genetic resources in the agroecosystem over time and space at the field and landscape level
6. Enhance beneficial biological interactions and synergies among the components of agrobiodiversity, thereby promoting key ecological processes and services

Furthermore, along with environmental issues, agroecology deals with social and economic problems associated with industrial agriculture. Due to a lack of principles addressing these socioeconomic dimensions of agroecology, Dumont et

al. (2021) developed seven socioeconomic principles which are intended to complement the ecological principles. The following table presents these socioeconomic principles.

Table 2: Socioeconomic principles of agroecology (Dumont et al. 2021)

1. Offer good living and working conditions for agroecological practitioners of the defined system, including through the use of the profits obtained from economic activity to remunerate workers and reach social objectives rather than to maximize the return on the capital invested
2. Participate in the development of social embeddedness of food systems through farmer, consumer, extension, and scientific networks that support (in) organic inputs exchanges (e.g. compost, machinery, knowledge) and the exchange of output based on solidarity economy
3. Contribute to the development of local food systems, by promoting local employments and local technologies, by minimizing distances between production, transformation and commercialization steps, and by promoting physical, intellectual and economic access to local markets.
4. Create collective knowledge by recognizing the value of traditional, empirical, scientific knowledge and know-how, and by facilitating their exchanges between actors applying agroecology, including between peers and between generations
5. Take decisions based on democratic models implying balanced power relations between system actors, horizontal exchanges, transparent relationships, non-racial, sexual, gender, religious and cultural discrimination, and no decision based on members' assets
6. Ensure autonomy in terms of viability and decision making from markets, economic actors (e.g. clients, agrifood businesses), and policies (e.g. subsidies) up and downstream of the system, and more particularly from actors external to the agroecological approach
7. Participate in political actions to promote agroecological principles and the conditions of their applications

Similarly to the ecological principles, the socioeconomic principles can also be achieved through various practices and strategies depending on the context. However, even though these principles seem exemplary in theory, it is important to bring attention to oftentimes complex factors which influence how principles translate into practices. These complex relationships are stressed by Dumont et al. (2021); "Implementation of the ecological and socioeconomic principles of agroecology [...] can vary widely according to different factors" (ibid.:7).

For the purpose of my study, I will mostly focus on the socioeconomic (SE) principles of agroecology. Specifically, I will mostly concentrate on the second, third, sixth and seventh SE principles. This is because participants' values and

motivations are strongly aligned with these principles and their actions often contribute towards their realization.

The second SE principle speaks about the social embeddedness of the food systems (Dumont et al. 2021). Social embeddedness in this sense means the closer involvement and increased transparency amongst all actors, from food producers to food consumers, participating in the food system. This can be achieved through formal or informal social networks through which the exchanges of both material and immaterial inputs occur. Such networks are understood to be able to raise customers' awareness about conditions of agricultural production, thus making customers more socially embedded in the food system (ibid.).

The third SE principle is related to the localization of the food system. Here localization of the food system refers to minimizing distances between food system actors. Such localization can be achieved through providing physical, economic and intellectual access to local markets (ibid.). Therefore, localization in this sense is not only about functioning on a restricted geographical scale, but also about improving the economic availability of food and reducing the intellectual distance between food system actors within such localised areas. Thus, the second and third principles differ in that principle 2 focuses on the character of exchanges while principle 3 on the geographical area of such exchanges. They are similar though, in that they may be present together as actors build closer relationships on a localized scale.

The sixth SE principle calls for acting and making decisions autonomously from the mainstream food system. This principle emphasizes the farmers' ability to make decisions and act in ways which are not influenced by, nor supportive of, actors within the mainstream food system (ibid.).

Lastly, the seventh SE principle fosters political involvement of practitioners of agroecology. Here agroecology as a social movement comes to light as this principle brings in a political lens with an aim to set or improve the conditions for implementation of agroecological principles on the ground (ibid.).

Before moving forward, it is important to emphasise that these principles can be interpreted in many different ways. Because of this, I will firstly analyse how the participants understand such principles and thereafter look at how they are employed.

4.3 Social and Solidarity Economy

Social and solidarity economy (SSE) is an umbrella term which is used "to refer to forms of economic activity that prioritize social and often environmental

objectives, and involve producers, workers, consumers and citizens acting collectively and in solidarity” (Utting 2015:1). Moreover, SSE can be defined as “a socio-economic order and new way of life that deliberately chooses serving the needs of people and ecological sustainability as the goal of economic activity rather than maximization of profits under the unfettered rule of the market” (Ojong 2021 see Quiñones:24). However, it is not the aim of SSE to end the current free-market economy but to protect itself from it (Wallimann 2014). To do so, production, exchange and consumption steps in SSE seek to incorporate economic, social, cultural and environmental objectives (Utting 2015). There are a myriad of organizations and initiatives which fall under the concept of SSE. Although diverse, all of these organizations and initiatives are concentrated on and linked with notions of “social welfare, co-operation, solidarity, ethics, and democratic self-management” (Ojong 2021:25). SSE includes groups such as fair trade networks, non-governmental organizations (NGOs), co-operatives, community-based organizations and practices like self-production, sustainable agriculture, organic produce channels etc. (ibid.). Moreover, SSE is particularly popular among food movements (ibid.). According to Ojong (2021), food justice and sovereignty movements are at the forefront of challenging the current food economy which is based on industrialized production and corporate control. Ojong (2021) further mentions how “these movements have championed solidarity approaches with respect to repossessing land, promoting fair trade networks, and creating cooperative organizations” (ibid.:25). In summary, SSE can be understood as a shift to de commodified economic circuits where the circuits are characterized by a distinctly socially and sometimes environmentally oriented logic which is alternative to that of mainstream market processes (Utting 2015). In these ways, the SSE relates strongly to the objectives of AFS which stress economic and social justice and environmentally sound production methods.

Employing the concept of SSE will allow me to theorize the existence of AFS given their overlapping interests. Given that AFS promotes economic and social justice, SSE can be used to uncover the presence of these aspects in participants’ economic activities. SSE contributes to economic and social justice by rooting “a bias to greater equality and inclusion’ in the organized logic of the economic system” (Utting 2015 see Unger 2006:21) as well as emphasizing the role of solidarity in economic relations. Moreover, the SSE contributes to environmentally nurturing production by re-orienting economic activity towards ecological goals. Therefore, the SSE allows a conception of economic action which allows me to analyse actions as contributing to an economic system which breaks with the capitalist prioritization of profits and therefore creates alternative systems of trade based on social and ecological goals. However, it is important to emphasize that ideas under the concept of SSE can be understood and interpreted in multiple ways by different people. Thus, I will try to show how these ideas are understood and

implemented in a possibly unique way by the study participants and further theorize their actions as contributing to the formation of AFS. I will attempt to uncover how participants' interpretations of ideas present under the concept of SSE influence their economic actions and decisions when producing and selling food.

5. Methodology

In this section, I will first focus on the process of choosing participants through a discussion of sampling. I will then paint a picture of the participants of this study in order to emphasize their uniqueness. These sections will be followed by a discussion on the ethical considerations that were most prominent throughout this study as well as a discussion of how my role as a researcher might have impacted the study. I will then turn my attention to data collection in which I will outline the role of literature reviews and interviews as key processes which have built my knowledge of the participants and their contexts. Finally, I will give a detailed description of how data analysis was approached.

5.1 Sampling of Participants

Due to the limited timeframe and the qualitative nature of the study, the research involved only seven participants. The small number of participants enabled deeper understanding and detailed analysis of the participants. Moreover, the study participants were approached through the Talamh Beo organization, Farming for Nature NGO and Cloughjordan eco village. The participants were chosen based on their membership in one or more of the mentioned establishments. Also, the choice of some of the participants was based on the information about them available on the Farming for Nature website. Specifically, the following factors were taken into consideration: participants directly express ecological consciousness and orientation towards nature; participants mention the implementation of agroecology or at least some principles of agroecology; and all of the participants are smallholders. Moreover, participants from Cloughjordan were approached through VERT (Village education, research, training group) so that contact with relevant participants from the eco village could be established. Choice of the participants from the eco village was based on the discussion with one of the eco village members who coordinates researches conducted in Cloughjordan eco village.

5.2 Profile of Participants

Five of the chosen participants are part of Talamh Beo, while three of them are also Farming for Nature ambassadors. Additionally, three of the chosen participants are part of Cloughjordan eco village. All study participants are smallholders who are familiar with the concept of agroecology and are not using any fertilizers as part of their farming practices.

Kevin came to Ireland from England and first used permaculture for food production. He first came across the word agroecology in New Zealand after which he became quite interested in the concept. After an extensive learning process he started practicing agroecology himself. He is a member of Talamh Beo and Cloughjordan, and used to farm on Cloughjordan community farm (CCF) in the ecovillage.

Pat is also a member of Cloughjordan and is currently farming on CCF in the ecovillage. He used to be a conventional farmer until he transitioned to sustainable farming practices. He is growing food, mostly vegetables, for the members of the ecovillage.

Bruce is the third participant from Cloughjordan, and he started his own project in the ecovillage called the RED (Research, Education, Development) Gardens. His main goal is to help as many people as possible to grow their own food. In order to do so, Bruce has his own YouTube channel on which he shares educational videos about various farming practices that he is trying out in his garden. Even though Bruce is using some agroecological practices, he was the only participant that would not call himself an agroecological farmer.

Sinéad is member of Talamh Beo and is a Farming for Nature ambassador. She is also an environmentalist and biodiversity plays a crucial role on her farm. She and her partner have a seventeen acre dairy farm in county Mayo and a herd of fifteen cows. The land was never farmed intensively and her cows live off of a pasture base from which they get everything they need.

Bridget was first a land rights lawyer in South Africa where she fought for rural black communities to reclaim their land. She came to Ireland, where she inherited mountain land, to become an agroecological farmer. Bridget is a relatively new member of Talamh Beo and she is also Farming for Nature ambassador. She is quite passionate about the wellbeing of the environment, and the communities that depend on it.

Fergal is also a member of Talamh Beo and a Farming for Nature ambassador. He came to agroecology from a political side as he was working with the international farmers' movement La Via Campesina. He produces various vegetables and fruits on his farm in Loughrea in county Galway.

Thomas is another member of Talamh Beo. He bought a farm with his partner on Dingle Peninsula and immediately converted it to organic. They also bought a

shop where they sell their produce from the farm directly to customers. Thomas uses agroforestry, agroecology, permaculture and biodynamics on his farm.

5.3 Ethical Considerations

Since the study was conducted in qualitative research design and it involved people it was crucial to take into account some ethical considerations. I have followed Robson & McCartan's (2002) suggestions for ethical codes and guidelines and additionally tried to tailor my ethical considerations towards specific characteristics of the study. Firstly, prior to the data collection I obtained informed consent from the participants and made sure that the participants understood what they were consenting to. In order to achieve this, all participants received the research proposal to get the main objectives of the study. Moreover, during the introductory part of the interviews the participants were presented with the main goals of the study and what their participation means for the study. Secondly, almost all of the data obtained from the participants during the study has been used exclusively for the purposes of this study. There was one exception where consent was given by a participant to share their interview data with a fellow student who was studying the same site. Thirdly, participation was completely voluntary, the participants had a chance to withdraw from the study at any time and they were given the right to remain anonymous. I was hoping that by making sure that participants are aware of these rights, any possible feeling of pressure on them would be removed. Fourthly, the participants had an opportunity to read written transcripts of the interviews to assure transparency and avoid misinterpretation of their words. Lastly, due to the extraordinary situation due to the Covid 19 pandemic, I followed the guidelines of the Irish Department of Health to make sure that I do not jeopardize the health of the participants, or anyone involved in the research process.

5.4 The Researcher's Role

It was important to self-reflect during the study as I am quite opinionated about the topic and have some previous knowledge about the main concepts of the study. Therefore, it was important to exercise my ability to identify my past experiences, personal values, background, knowledge etc., and understand how these experiences might influence the interpretations of the derived data during the study (Creswell & Creswell 2018). Specifically, I have a bachelor's in international business and during that education I obtained knowledge about, among other things,

long supply chains, competition on the market and price settings. The participants have to deal with these concepts regularly so letting them know that I am familiar with some things they were trying to explain seemed to ease the conversation and make participants more comfortable talking to me. Additionally, I strongly support alternative agricultural methods. Therefore, acknowledging my aspirations towards nature helped me to gain trust from the participants who use agroecological practices not only to produce food but also to sustain nature. Moreover, the fact that I am opposed to the conventional/industrialized farming practices and that throughout my studies I gained knowledge about agroecology as an alternative, helped me establish a better connection and notion of reciprocity with the participants. However, since I have conducted the entire study by myself, all arguments are a reflection of my personal interpretations which are subjective. Therefore, it is crucial to make that clear to avoid giving the false impression of objectivity. Moreover, Creswell & Creswell (2018) pointed out the importance of researchers to be aware of their connection with the participants or a study site. The fact that I have no personal connection to the chosen study site nor the participants added to the objectivity of the study as my role was rather impersonal. On the other hand, the lack of any personal connection and me being a foreigner might have made it more difficult for me to gain trust from the participants as they might have perceived me as an outsider. I tried to overcome this difficulty by giving the participants a little bit more personal introduction of myself before starting the interview. Also, I tried to spend more time with the participants that welcomed me in person on their farms. I was hoping that spending some time with them apart from interviews would help me to stop being a complete stranger in their eyes. Lastly, as English is the participants' first language there was no need for an interpreter and therefore participants' views were not filtered through translations or the linguistic interpretations of other people. I believe this also added to the objectivity of my study.

5.5 Data collection

5.5.1 Interviews

Interviews were performed through a combination of on-site field visits, via Zoom and one interview was conducted over a phone call. Specifically, semi-structured, face-to-face in-depth interviews were conducted with mostly open-ended questions. According to Robson & McCartan (2002), keeping the interviews open-ended might allow me to develop a sense of cooperation, to better assess the participants' beliefs and to allow me to probe into topics which might be

complicated or vague. Since I was interested in participants' personal experiences and opinions, the interview took the form of an active dialogue which enabled participants to openly express themselves. Interviews in such a format might accomplish a higher level of trust since the participants would not have a feeling that they are simply research objects. Moreover, there were not two identical interviews since each participant was unique and various additional questions popped up depending on the situation. Therefore, I needed a lot of flexibility to allow the possibility of capturing findings which would not be uncovered with a usage of highly structured interviews. On the other hand, completely unstructured interviews provide too much flexibility and as Robson & McCartan (2002) said, this research tool is not an easy option for a novice. Therefore, I used a previously prepared interview guide to make sure that all necessary topics for the research were covered in the given time of an interview. I modified the interview guide several times during the study as I learnt which questions worked well and which did not. Interviews on average lasted around one hour. The interviews which were conducted in person took place at participants' home or farm depending on the choice of the participants. As part of an invitation for the interview participants received the research proposal in order to provide them with the basic information about the study so that they were able to make an informed decision if they want to participate or not. Moreover, at the beginning of each interview participants were presented with the goals of the study and their role in the research was explained. Additionally, all interviews, with the previous consent obtained from the participants, were recorded. Afterwards, these recordings were transcribed with the help of Otter¹ - an online application for transcribing audio files. All participants received the transcription of the interview in which they participated and were given an opportunity to add or remove something that they have said or wanted to say. Recordings and transcripts were made to make the process of data analysis easier and more accurate. All quotes used in the thesis are taken from the transcripts.

5.6 Data Analysis

Data analysis was carried out through thematic coding analysis. This was the chosen method for data analysis because it offered the needed flexibility. Since the purpose of the analysis was to uncover how agroecological farmers in Ireland are motivated to practice agroecology, how such practices lead them to develop alternative food systems (AFS), and which difficulties they confront throughout this process, the obtained data was quite wide ranging. Thematic coding analysis thus worked well in providing a flexible approach to make sense of the data. Moreover,

¹ <https://otter.ai>

according to Robson & McCartan (2002) some of the advantages of thematic coding analysis are that it is convenient for inexperienced researchers, which I am, and that the results of the analysis can be easily communicated. Moreover, the method can be used to report “experiences, meanings and the reality of participants” (Robson & McCartan 2002:467) which fits perfectly into the aim of my research.

Thematic coding analysis was used inductively, meaning that the codes and themes emerged from my interaction with the data. Moreover, although the data analysis was carried out through a combination of participants’ words and my own interpretations, a special attention was focused on participants’ own thoughts and perceptions regarding particular things which gave the analysis a phenomenological character. In order to answer my research questions I generated the codes from the derived data, namely from transcriptions of interview recordings after which I identified the themes that came up from the generated codes.

Additionally, for carrying out thematic coding analysis the five phases proposed by Robson & McCartan (2002) were followed. Firstly, I familiarized myself with the data by checking the transcriptions of the recordings from conducted interviews and re-reading transcriptions of the recordings several times. Secondly, I generated initial codes by interacting with data while also having in mind and especially focusing on the topics that were of great interest for the study. Thirdly, I combined codes into themes and then checked how the themes work in relation to the data. Fourthly, I constructed thematic networks to see which themes are identified and if there were any themes that could be merged together or better positioned. Lastly, I interpreted the thematic network from the previous step by seeing how some themes are related, how they might be connected or compared to each other and generally by exploring the themes to understand the meaning of the data. This was done with the help of some of the proposed tactics by Robson & McCartan (2002), for example: noting patterns, making metaphors, making comparisons and so on.

6. Analysis

The analysis will now deal with four main themes detailing how farmers are motivated to practice agroecology, how they utilize agroecology to create alternative food systems (AFSs), and how such actions resemble a logic of social and solidarity economy (SSE). After doing so, I turn my attention to the challenges which agroecological farmers perceive as hindering their ability to act in ways they wish to. The four themes of focus include: localizing food exchange, value based systems, autonomy, and role of organizations. The first topic, that of localizing food exchange, will explain how and why participants minimize distance between themselves and their customers. The theme of ‘value based system’ will explore how values, previous experiences and knowledge of participants influence their actions and formulate their motives. Moving forward, ‘autonomy’ will uncover the strategies employed by participants to distance themselves from the mainstream food system. Finally, ‘the role of organizations’ will look into the example of the farmer led organization Talamh Beo and explore how it resembles the culmination of the participants' motives as well as acts to further their goals. Thereafter, I will focus on the perceived difficulties of participants. Here I will firstly look at the lack of available education for agroecological farmers, and secondly, analyse the perceived inequalities imposed by the European Union’s Common Agricultural Policy.

6.1 Localizing Food Exchange

Previous experiences and values of participants often lead them to act in ways which contribute to the localization of food exchange.

A key experience for Fergal was working for La Via Campesina. Through this experience he came to an understanding of agroecology as a food production method that has been closely tied to the local society and culture;

“I always understood it [agroecology] as not a single prescribed way of producing but a whole way of understanding how we interact with land, territory, society, which is based on a kind of interaction I suppose, an interaction which was rooted in knowledge from the grassroots. Not just a production system, but a kind of farming system that has been rooted in the society and the culture...” (Fergal 2022).

These thoughts highlight that Fergal does not understand farming as a practice constrained to the production of food but rather as something that is integrated in the social fabric through relationships and connections. Such thoughts can be understood as informing Fergal's decision to sell food to a couple of local restaurants located within the same county as his farm and operated by his close friend. Approaching the sales of food through such a close personal connection echoes Fergal's understanding of agroecology as a production system rooted in society. One of the benefits that Fergal receives from such an arrangement is an open communication with his customer which makes it easier to reach a mutual understanding regarding food supply.

Such actions align with the third socioeconomic (SE) principle of agroecology which "highlights the need to locally anchor food systems" and "favor direct relationships between food system actors" (Dumont et al. 2021:6). By localizing this specific food chain and basing transactions in direct relationships, Fergal's actions contribute to minimizing distance between the producer and consumer of food. Such processes can be understood as crucial to the development of local food systems as they enable farmers to increase profits by bypassing 'middlemen' (Wezel et al. 2020 see Pimbert & Lemke 2018) as well as helping establish an awareness and respect for the role that farmers play within food systems. It can be seen therefore how Fergal's understandings and experiences of food translate into an agroecological approach to food sales which may contribute to the development of an AFS.

Bruce came to practice gardening through his experiences in architecture and working for Feasta, an ecological and socioeconomic think tank. Through his knowledge of urban planning and experiences for working with Feasta, Bruce came to better understand the role that food can play in fixing many of the environmental and social problems that society has today. Understanding food as a central player in creating sustainable societies, Bruce took up gardening in his backyard in order to learn by doing. Bruce sums up this sentiment;

"And so I thought, okay, how do I change that? [...] If the solution is for more people to grow their own food, but nobody's growing their own food? How do you fix that? And how do you fix that in a way that kind of makes sense? And how do you fix that in a way that makes sense for me? What can I do? What part of that puzzle can I address - or can I fill? [...] I realized I need to grow more of my own food."

Bruce later arrived at Cloughjordan ecovillage and began his mission of helping others to grow their own food through the RED Gardens project. A key element of the RED Gardens for understanding how Bruce contributes to the localisation of food is the Vegetable Fridge (Veg Fridge). The Veg Fridge is a refrigerator where

Bruce stores food harvested from the RED Gardens. Everyone in the ecovillage has access to the fridge and are also able to take whatever food they might need, whenever they might need to - there is no supervision of the Veg Fridge. Furthermore there is no price list for the vegetables in the fridge, instead, the food is sold based on an honour system through which it is up to customers to pay what they feel the food is worth. This quite unique way of selling food enables Bruce to have more time for farming or creating educational videos but also plays a more significant social role:

“But the other reason that I do it is more of a social and cultural purpose. Most people will never have an opportunity to really think about what something is worth. I'm pushing them to make a judgment. [...] Because if I was to actually put a real value on things, it would be much higher than what most people would spend. So I'd be excluding a lot of people from the market. And it encourages people to actually really consider what the value is.” (Bruce 2022).

Through this example we can see how social goals intertwine with ecological goals through Bruce's actions. Not only does the Veg Fridge serve as a means to localize food consumption but it also contributes to increasing the availability and access to food within the village. Thus, Bruce's environmental and social orientations guided him to implement a different system of food exchange. Bruce's RED Gardens reflect his motivation to contribute to solving the world's ecological problems, his interest to improve access to food and to raise awareness of food production methods. The RED Gardens contribute to achieving these goals through a localisation agenda which cuts out food distance, reduces food packaging, provides a pickup point for the local community and engages them through an honour pricing system. These actions therefore resemble the third SE principle of agroecology as Bruce is “minimizing distances between production, transformation and commercialization steps” and “promoting physical, intellectual and economic access to local markets” (Dumont et al. 2021:5). They further resemble a piece of a SSE as the process of producing and providing food is guided not by profits but rather by social and ecological goals. The system of food distribution specifically is structured in such a way as to promote equality and solidarity. It does this in two ways; it allows all people to access food irrespective of income, and it allows people to express solidarity with Bruce by paying more for the educational, environmental and social service that Bruce provides. Thus, the Veg Fridge aligns with SSE as it “root[s] a bias to greater equality and inclusion' in the organized logic of the economic system” (Utting 2015, see Unger 2006:21).

Both Bruce and Fergal, by localizing their food production through both shortening physical distances and building direct relationships with customers, practice a form of farming which is socially and ecologically distinct from the mainstream industrial food system. By doing so, both contribute to developing an

AFS, one based on social and ecological values where farming is a system which is rooted in society and is intended to serve the needs of all people.

6.2 Value Based System

Participants often expressed the need to gain enough income to create a livelihood for themselves and their families. However, the way in which they try to gain income and create a livelihood is highly influenced by their personal values which can sometimes conflict with these goals.

Fergal expressed how he is trying to find a balance between making money in a capitalist society while preserving his values which do not fit the capitalist rationale. Economically, he would like for his farm to provide a livelihood for his family. Thus, his goal is conditioned in a way by his values:

“We have to balance our needs to make money with our moral and political/social values, we’re not going to produce in a way which goes against those values just for money. We are trying to build a livelihood model which values land, people and community as more important things than money.” (Fergal 2022).

During the interview Fergal mentioned some of the values which influence his actions. For example, it is very important for him to produce food in a sustainable manner which does not jeopardize the wellbeing of nature on which his farm is based. Therefore, he has a “cooperative sort of relationship with nature rather than a competitive one” (Fergal 2022). Fergal applies farming practices like mulching, green manure, compost application etc. which enhance the soil biology and strengthen the immune system of the farm. According to a study by Nicholls et al. (2016) these farming practices indicate an agroecological approach to farming.

Furthermore, Fergal’s values are further reflected in his appreciation for the food that he is producing. He mentions that eating fresh food he has been growing himself and which is produced in a good way, is a luxury and a privilege. He further explains that such access to healthy food is itself a motivation to continue being the food producer and agroecological farmer that he is.

Thus, for Fergal, farming is more than an economic venture, it is instead an embodiment of his interest and will to produce ecologically responsible and healthy food. Such personal connection with the food he is selling dissociates his actions from the heavily economy oriented logic prevalent within the mainstream industrial food system (McMichael 2013). Whereas commercial farmers will be guided by economic principles in order to increase return on investment and profits from farm activities, Fergal will rather forgo economic benefits in cases where they conflict

with ecological farming practices. More concretely, this means that while mainstream farming will allow profit generation through, for example; economies of scale, short-term yield increases, the use of external inputs, mass production and large-scale and mechanized monoculture plantations (McMichael 2013, Clapp 2016) - Fergal as an agroecological farmer, will not find it acceptable to adopt such practices as they conflict with his ecological values. The embeddedness of such a different, in this case specifically agroecological logic of values within Fergal's method of food production, is a sign that Fergal contributes to the creation of an SSE. The SSE economy can be understood as being primarily about economic activity that prioritizes social and environmental objectives (Ojong 2021). As it does so, the SSE resembles economic practices which constitute an alternative logic to prevalent market practices (Utting 2015). In this case, it is the logic of industrialized and economically oriented food production practices which are prevalent as part of the mainstream food system (McMichael 2013, Clapp 2016). It is exactly in contrast to these practices that Fergal's methods of agroecological production resemble an alternative logic to prevalent market practices and therefore, contribute to developing the SSE.

A core part of how Sinéad understands herself is as an environmentalist. This characteristic of her has played an important role throughout her experiences working in the environmental sector but also in her approach to farming. For example, increasing biodiversity on the farm is the number one goal for Sinéad. All of her cows are traditional breeds and thrive on a hundred percent pasture base from which they receive all the nutrients they need. Sinéad further introduces medicinal plants for the cows when she gets a chance. In this way, Sinéad's actions can be seen as fulfilling the sixth ecological principle of agroecology of "enhancing beneficial biological interactions and synergies amongst the components of agrobiodiversity" (Nicholls et al. 2016:4). As an environmentalist in an agricultural sector, it is important for Sinéad to showcase the opportunity of alternative agriculture to produce social and ecological benefits. She is aware that a lot of people have a negative picture of agriculture when it comes to the environment. This knowledge influenced her to offer farm walks so that she can bring more people on the farm and show the beneficial aspect of alternative agriculture for the environment. In these ways Sinéad practices the second SE principle of agroecology of promoting the exchange of knowledge to favour the implementation of agroecological principles (Dumont et al. 2021). Dumont et al. (2021) further write that "Such social networks are fundamental to sensitize consumers to the realities of agricultural production and establish fair prices. They can further support solidarity economies that can support exchange of goods and knowledge, based not only on market principles but also in reciprocity and redistribution" (ibid.:6). Moreover, her desire to raise awareness about alternative

agriculture influenced Sinéad to be open to various questions that customers pose regarding the food production on her farm. She wants to create a relationship with customers and tell the story behind the products she is selling. This is why she wants the customers who buy from her because of the way she farms, not simply because they need a product that she happens to offer.

Therefore, Sinéad, like Fergal, prioritizes environmental objectives which can be seen through a specifically agroecological manner. Moreover, in these specific examples, it is also visible that Sinéad's social values play a significant part in her actions. In a similar way as Fergal, Sinéad therefore contributes to the development of the SSE through the prioritization of social and ecological goals which are in contrast to the logic prevalent in mainstream market processes. A clear example of this can be seen in the logic behind the higher prices of the milk that Sinéad sells:

“...we're always trying to find a balance between our prices, and because of the way we work, there's two of us full time. So we obviously have to pay ourselves. And we're not driven by money either. Like, we know, we're not going to be millionaires out of it. We do this for our lifestyle, and we have to make money but then at the same time, we don't want the milk to be a niche product or something that people only buy at the weekend. And, to be honest, all our customers buy it every day like you know, they buy it for the week, that kind of thing. [...] but you're trying to find the balance between your price, so that we can get enough price wise for us, but also keep our milk affordable for people. But then to be honest, the price has never really been a question for people. Because the milk and the system talks for itself...” (Sinéad 2022).

This example highlights that Sinéad sensitizes customers to the realities of her food production and is thus able to establish fair prices. According to Dumont et al. (2021) previous description of the possibilities of networks, it is likely that such a result is due to the building of relationships with consumers through opening her farm to her customers. The higher prices are not established for the profit maximization but to simply cover the cost of more environmentally friendly food production and to remunerate food producers involved in such production. In line with what Dumont et al. (2021) mention, Sinéad's actions then support solidarity economies as customers' willingness to pay higher prices and thus support Sinéad is based on a knowledge about the food production which Sinéad provided them.

Pat worked as a conventional farmer and grew vegetables for supermarkets. During that period he felt very unappreciated and explained the relationship he had with supermarkets as follows: “They wanted one crop, one person. Even two crops, one person. Less they have to deal with, the better [...] And the commitment they had to you was zero. It was all based on economics” (Pat 2022). His experiences in conventional farming therefore seem to confirm opinions about the negative treatment of farmers by the mainstream food system while the root of such

exploitative relationships has been explained as stemming from an overly economic conception of food systems and the role of farmers therein (McMichael 2013, Clapp 2016, Altieri & Toledo 2011). These experiences pushed Pat to reimagine his approach to farming. Embracing agroecology as a production method, Pat's new approach to farming is one which breaks with the predominantly economic values associated with practicing conventional farming, and instead prioritizes social and ecological values associated with alternative farming (Piñeiro et al. 2020, Robinson 2009).

Findings suggest that ecological objectives are at the core of Pat's decision making on the farm. Pat uses many agroecologically oriented farming practices such as crop rotation, green manures, and compost application (Nicholls et al. 2016). Moreover, Pat approaches farming with the interest of minimizing external inputs. This can be seen in the farms' low use of machinery, practices of seed saving, and the lack of usage of artificial external inputs. The Cloughjordan Community Farm (CCF), on which Pat farms, is further structured as a closed market where members are both owners and buyers. Having such a close community is something that Pat really appreciates as it allows him to develop strong social ties. He explained the relationship he has with the community as reciprocal:

“The community, I'm committed to them, and they're committed to me, because they know I'm going to try and grow as ecological as possible, as sustainably as possible, as diverse as possible. [...] We're giving them food security. So they're the pillars that the farmer is built on” (Pat 2022).

Pat further mentions how he takes care to make sure that all his actions make economic sense, because he has a responsibility to provide the members with value for their money. These examples highlight an approach to farming adopted by Pat which places ecological and social objectives at the heart of the farming practices. Perhaps the most striking example indicating how Pat's newfound farming practices prioritize ecological and social values over economic ones can be seen through the fact that he has reduced his own salary in order to help the CCF financially. Additionally, Pat is not alone in such actions. Several times throughout the CCF's history where there have been tough moments, members have continued supporting the farm despite getting less produce.

If we look into the motivations of the members in doing so, we can find characteristics of the SSE. Pat mentions several times that it is with the trust and support from like-minded members that the CCF has survived through its tough moments.

“But because I'm in the eco village, straightaway, they get it - the ethos. Now I tried to start this project somewhere else. And it failed. It never got off the ground, actually. Because it was too big a step” (Pat 2022).

What is important here is this element of ‘ethos’, which Pat uses to refer to a shared orientation amongst members to participate in a more sustainable food system, one more in tune with ecology and more respectful to society than the mainstream industrial food system. Through these motivations we can see the outline of an SSE emerging. The economic value invested in the farm by members, or the value foregone by Pat both signify a larger and collective interest to support the CCF due to the social and ecological benefits which it provides. In other words, the money that is spent or foregone, is not done so with the goal of profit maximization but rather with the goal of sustaining and developing an alternative model of food production to meet the interests and needs of the community. These actions align strongly with the definition of SSE given by Ojong (2021) as “a socio-economic order and new way of life that deliberately chooses serving the needs of people and ecological sustainability as the goal of economic activity rather than maximization of profits under the unfettered rule of the market” (ibid.:24).

Therefore, we can see how Pat's initial experiences as a conventional farmer incited a change in orientation away from economic value towards social and ecological ones. We can further see the prioritization of these values in the actions that Pat takes both as a farmer on the CCF, and as a community member within the CCF. Such actions go further than just reflecting his values, they contribute, alongside the actions of like-minded people to enacting and creating a SSE within which a healthy society and environment are objectives which are not outweighed by the interest for profit creation.

From his early experiences with farming, Kevin has been interested in ecologically sound farming practices such as permaculture. Having moved to Ireland from England due to the affordability of land, Kevin came across the Irish Seed Savers association, where he worked for some time growing and preserving traditional varieties of seeds in Ireland. During a year in New Zealand, Kevin came across the term agroecology and was inspired by how well it worked with nature to achieve farming goals. He followed this interest to a yearlong horticulture course which is part of the agroecology section at the University of California. Finally, returning to Ireland, Kevin continued with the Irish Seed Savers and eventually started the CCF in Cloughjordan eco village with a fellow farmer.

What makes Kevin a unique example is his long-standing goal of practicing ecologically sound farming practices. The plethora of experiences and knowledge that Kevin has gained over the years have played a crucial role in equipping Kevin to better be able to implement ecological farming practices. But further than just

practicing an ecological form of farming, Kevin's philosophy around food extends deeper. This can be seen when Kevin explains the challenges he encountered in the mentality of people around food production and consumption;

“So when I went to work down on the farm, that's what I tried to start implementing was, you know, looking for polycultures. But what you need is you need people, you need people to do these things. They came from kind of community based ideas [...] subsistence living, really was what it came down to me. And it was just really, really hard. Because our mentality here, it's such a production based mentality. You know, we just want the product, we don't care what you do in the soil kind of thing, you know. [...] we put more value on money than the actual thing that we have. [...] We didn't have that culture that understood that food was something more than just the commodity, you know, its connection to the land, its connection to the culture” (Kevin 2022).

From here it is evident that food is more than a commodity for Kevin. Instead, he understands food as an integral part of the society, culture and ecosystem. Kevin explains that the farm does not end at the borders of the farm. Rather, each piece of farmland is part of a whole, a much larger ecosystem and should be seen in that way. Such values and ways of thinking were the impetus behind Kevin's decision to start CCF in Cloughjordan ecovillage with a fellow farmer. The CCF therefore embodies many of the ideas Kevin has been developing throughout the course of his experiences and education. On the CCF, food is produced with agroecological principles in mind. It is also decommodified as it is closed off from external market influence and governed democratically by the members who are also owners. The very structure of the CCF therefore resembles SSE as it can be seen as constituting a decommodified economic circuit within the governance of which a bias towards the achievement of the social and ecological goals of the community are prioritized (Utting 2015, see Vail 2010). While Kevin does acknowledge that the CCF is far from perfect, the project is nevertheless well oriented towards social instead of financial values:

“...the idea was that the members then had to change themselves into realizing they were a community, and that you don't take from your brother or sister [...] if there's 10, carrots, you just take a carrot, you know, you just take what you need for this meal, the coach house^[2] is really accessible to everybody” (Kevin 2022).

The establishment of the CCF can be seen as an embodiment of Kevin's work, education, and values. The CCF, embraces and prioritizes the ecological and social values which Kevin supports through the employment of agroecological principles.

² The 'coach house' is a building at the very entrance into Cloughjordan Eco Village which is used as the pick-up point for members to pick up their vegetables.

6.3 Autonomy

The motivations, aspirations and personal goals of participants have influenced them to act in ways that distance them from the mainstream food system. In general, participants seek to achieve autonomy from other economic actors as they perceive their own actions as oriented towards fundamentally different goals than those which are embraced by the mainstream food system.

Sinéad sees herself as an environmentalist. She is opposed to industrial farming and would like to see a reduction in farm sizes as well as a switch to more traditional livestock breeds and the elimination of synthetic nitrogen throughout the agricultural industry. It is visible that Sinéad's actions reflect these interests as her practices stand in contradiction with the industrial farming system. Taken together, her actions can be seen as establishing her farm within a food system that functions by a logic distinct and separate from that of the industrial food system. In this way, Sinéad opposes such a system, by practicing its opposite.

Perhaps the clearest example of how Sinéad opposes the industrial food system is by boycotting supermarkets. She sees supermarkets as places where produce has no story behind it, echoing ideas of commodification of food and the distancing of consumers from the social and ecological realities underpinning food production. She says;

“So we've always kind of from the start decided we didn't want to go into a supermarket, because we're not a part of that food system. If we put our product into the supermarket, it just ends up being on the shelf beside conventional milk and all the other milk and there's no story behind us” (Sinéad 2022).

Instead of supermarkets, Sinéad builds close relationships with small grocers through which she sells her produce. She invites grocers with whom she collaborates onto her farm where she introduces them to her cows and shows them how the dairy products are produced through a farm walk. Small grocers further align with Sinéad's interests as many of them are committed supporters of local food, just like herself. In these ways, Sinéad creates a more personal connection between her farm, her products and the grocers with whom she is working. Grocers, by familiarizing themselves with Sinéad's farm, learn the story of the farm and transfer that knowledge to customers. Such close knit, personal, 'short', and knowledgeable relationships stand in strong contrast to the impersonal and distant relationships that characterize long supply chains within the industrial agricultural industry (Clapp 2016).

Another example of achieving autonomy from the industrial agricultural system can be seen in the range of activities that Sinéad practices. Far from specializing in one specific activity, as is a commonly supported attitude within industrial production (ibid.), Sinéad engages in all stages of production steps including distribution and marketing. In order to reach customers, Sinéad uses social media channels such as Instagram which she finds a useful and cheap marketing tool which can also be used to encourage questions and share information about the farm. Moreover, she has opened a farm shop where her customers can pick up products on their own. She further plans on cooperating with an organic vegetable farmer so that they can both sell each other's products in their own shops. While she does recognise that this is hard work, and that more institutional support would be very much welcome, she nevertheless sticks by her principles and avoids being complicit with industrial farming.

The above examples illustrate how Sinéad's actions are a reflection of her personal opposition to the mainstream food system. What results from these actions taken together, is a process of farming which is rooted in close social ties, which emphasizes social and ecological values and is highly autonomous from the dominant industrial food system. Thus, these examples showcase the sixth SE principle of agroecology; that of ensuring autonomy from markets, economic actions, and policies (Dumont et al. 2021). Through creating close connections with grocers, by cooperating with other farmers, by selling to small and independent shops, by independently practicing all stages of production and by taking marketing into her own hands, Sinéad removes herself from the mainstream food system which may force conditions and economic pressures onto her as a farmer. Instead, Sinéad's actions contribute to formulating an AFS, one which is based on environmentally sound production methods and socially just relationships. Sinéad recognizes that she belongs within this alternative system;

“...once you start to farm like this [agroecologically], and particularly if you farm and sell the food directly yourself, we operate on a whole different food system. Like when people say to me, “you're a part of this system” [the industrial food system] - we have nothing to do with that. We are totally operating within our own little kind of bubble. [...] You have to remove yourself from the existing agricultural system” (Sinéad 2022).

Pat's experience as a commercial farmer can be seen as a pivotal moment in his life which strongly influenced him to turn to more sustainable farming methods. Before CCF, Pat produced two crops which he sold to sixteen supermarkets. As previously mentioned, Pat felt unappreciated by his buyers who would squeeze profits from him by, for example, purchasing excess food for less than half their value. In these relationships the buyers did not show considerations about the situation that Pat was in. Through time Pat realized that he could not grow food

sustainably in this manner. He had to use chemicals in production due to the fact that otherwise the plants would not survive, and had to plant monocrops as the buyers did not want to deal with producers who grew more than one or two crops. Furthermore, Pat ran up a debt on his farm after investing but not having enough time to pay it off. This disillusionment with the conventional farming system played a key role in Pat's decision to move to doing conservation work with the Irish Seed Savers, an association which collects and preserves a wide variety of traditional, native, and unique seeds used in Ireland. It was through his experiences working for Irish Seed Savers that Pat made connections with like-minded people, learnt about conservation and plant varieties and became inspired to start the CCF with a fellow farmer. Pat approached Cloughjordan eco village with the idea of starting the CCF, run on a community supported agriculture (CSA) model and was welcomed by the community to do so. As a community farm, CCF operates as a closed market. This is a key feature that gives much more autonomy to food producers. Pat speaks about the various intertwined benefits that this model grants;

“So the biggest one [factor] for a producer is your market, there's no point in growing something if you can't sell it. And I wanted to have a closed market but I didn't want to be going to the market anymore, wasting my time, in a way. I used to spend a third of my time just driving around. [...] here we're just going less than a kilometre or half kilometre to the pick-up point, and all the members come to the pickup point. So that gets rid of all the deliveries. And then obviously, we'll be able to grow as much of our own seed as possible. And so that's, that closes that loop as well. And we're part of a bigger seed network of other growers. They're growing varieties, we're growing varieties, and we swap. We collaborate with other farmers. Yeah, so I mean, the focus then is we're growing for the needs of the community not the needs of the market. That's really important. That's a big goal for me” (Pat 2022).

Having located the farm within a community which is explicitly oriented towards a more sustainable type of living, Pat's ambitions to save seeds, produce many varieties, farm agroecologically and minimize energy and waste are well accepted practices. In this way, by creating a closed market of like-minded people, Pat has created an autonomy from the mainstream food system. By setting up his farm in such a way, he has specifically created a system through which he can do what he loves and avoid the negative conditions which he experienced as a commercial grower. Furthermore, the impetus and knowledge employed by Pat to begin and run such a project would not have been possible had it not been for his experience and social ties developed at the Irish Seed Savers. Thus, it is visible from these examples that the actions Pat has taken have been a direct result of experience, relationships and knowledge.

In the context of autonomy, the CCF can therefore be tied to the sixth SE principle of agroecology, that of ensuring autonomy from markets and economic actors (Dumont et al. 2021) and to ideas of SSE through two strong points; firstly,

through community support and reciprocity and secondly, through the development of food exchange systems which prioritize social and ecological goals (Ojong 2021, Utting 2015). Under the topic of autonomy from markets Pat describes a good deal of how and where he is autonomous;

“So we're producing the field with no packaging, the crates come back up, we just allow people to take what they want. We don't even make boxes up as such, and they self regulate. [...] So we somewhat cut out the middleman for one thing, but we also cut out all the packaging. [...] I have five people working part time, and one person full time and myself. [...] And then when we're in a closed market it means then I'm focusing on growing for the members not for a market. So the market has a different criteria. They want straight cucumbers. They want carrots that don't fork. They want everything washed. Which is all contrary to the way nature does it” (Pat 2022).

In these ways, Pat is not reliant on machinery, market standards, packaging, distributors, GMO seeds and the like. Instead, the farm functions, almost in entirety, as a separate system of food production. This aligns with the sixth SE principle of agroecology which calls for ensuring autonomy from markets and economic actors so as to “avoid depending on the mainstream food system and to avoid financing it” (Dumont et al. 2021:6). The isolation of the CCF from the mainstream food system is also reflected in the strong community ties and practice of reciprocity which keep the farm going through tough moments. Previously, when the farm had problems with production, the members stood by its side and continued to finance the farm despite receiving less produce than usual. Additionally, when the farm was just starting to operate members were willing to pay for membership without receiving any food as none was produced at the time. And likewise, we can see a reciprocal attitude of commitment from Pat who this year has decided to receive smaller wages from his work due to a financially tougher situation in which the farm is in. These actions portray an example of how the farm deals with uncertainties, difficulties and changes autonomously, and thus avoids succumbing to the logic of market forces. They further exemplify the existence of a SSE in that the governance structure of the farm, with members as owners, roots a bias within the organization to prioritize social goals over, for example, the maximization of profit (Utting 2015).

Thus, the CCF shows signs that it is supportive of an AFS. The examples above notably emphasize two key points; firstly, that the CCF is highly autonomous from the mainstream, industrialized and corporate food system. A key contextual factor that has given rise to the CCF are the negative experiences that Pat, as a previously commercial farmer has had operating within that corporate system. Secondly, the CCF embeds processes of food production, distribution and decision making into social ties and into ecological processes. These two characteristics are key for

understanding the CCF as constructive of an AFS. Zerbe (2010) emphasizes exactly these points when describing alternative food movements and systems, saying that firstly, AFS can be seen as arising in opposition to the perceived failures of the mainstream food system and secondly, that alternative food movements, such as CSA's, "share a common vision of a food system re-embedded in broader social relations" (ibid.:20).

6.4 Role of Organizations - an Example of Talamh Beo

Talamh Beo can be seen as a political culmination of the aspirations and interests of alternative farmers in Ireland which seeks to incite change in the food system in order to reorient it towards more social and ecological goals.

To understand how Talamh Beo represents the interests of alternative farmers, and how it seeks to transform the food system, an introduction to the organization is first necessary. Talamh Beo is a farmer-led organization which was started by a group of small-scale local food producers who saw a need to change the current state of food production in Ireland. Talamh Beo explicitly states it is aimed towards creating "a better food system in Ireland, where all people have access to healthy, nutritious and affordable local food" (Talamh Beo 2022). The organization stands "for a system which puts the power back into the hands of farmers, communities and citizens instead of corporate interests and industrial agriculture and food production" (ibid.). These goals are rooted in ideas of agroecology and food sovereignty, therefore, farmers joining Talamh Beo are directly "joining an international movement working for agroecology, regenerative farming and food sovereignty" (ibid.). According to Ojong (2021), food justice and sovereignty movements are at the forefront of challenging the current food economy which is based on industrialized production and corporate control. Thomas explains what Talamh Beo is all about:

"It [Talamh Beo] is all members, it's about educating farmers themselves, as opposed to relying on experts. It's about working with food sovereignty. [...] our ages and sexes are mixed, our farming systems are mixed. But we're pretty much on a small scale, non industrial food, and we're totally un-represented by the existing system. We understand the issues on the ground both with access to finance, access to land, access to open information, but then the policies and the systems we have to work in are detrimental to us being able to provide food and water" (Thomas 2022).

In general, Talamh Beo plays an important role in achieving participants' goals and aspirations. It does this through connecting like-minded alternative food producers, enabling them to share information and knowledge about agroecology and providing them a space to politically engage in order to promote alternative ways of food production.

One way in which Talamh Beo promotes the dissemination of knowledge is through their project, the Soil Biodiversity, Literacy and Enhancement Project. This project, funded by the European Innovation Partnership (EIP), was often mentioned by participants. The basic aim of the project is to educate farmers about soil biodiversity. In doing so, it aims to upskill farmers by bringing in new technologies and approaches. Through the project Talamh Beo hopes to raise awareness about the connection between healthy soils and the quality, or nutrient density, of foods produced in such soils and to share the knowledge with the broader community. The farms targeted by the project are hoped to then act as lighthouses to attract and educate other farmers.

It is furthermore visible that the project aligns with several principles of agroecology. By improving soil biodiversity the project promotes the enhancement of biodiversity and therefore contributes to fourth and fifth ecological principles of agroecology as explained by Nicholls et al. (2016). By creating collective knowledge which should be transferred to other farmers on a peer-to-peer basis and later serve as a resource for local communities, the project contributes to the fourth SE principle of agroecology (Dumont et al. 2021).

More than just disseminating knowledge through this project, Talamh Beo also serves to connect like-minded alternative food producers and provides them a space to politically engage with food systems change.

For Fergal, Talamh Beo facilitates networking with farmers, sharing of knowledge and importantly, it provides space for political discussion:

“And that's part of the reason why we have Talamh Beo as well, is to engage with farmers on the ground, to try and rebuild that knowledge base and also to intervene in the political space and try and shift a little bit the whole framework of how we produce and how our food systems operate” (Fergal 2022).

Thus, Fergal sees the role of Talamh Beo as not just present within the community of alternative farmers but also in the overall political sphere of the agricultural industry in Ireland. For him Talamh Beo is a sort of a vehicle for promoting an AFS which is influenced by an understanding of agroecology:

“I think in Ireland we have an overwhelming focus on dairy, beef production and I think that a lot of that needs to be re-oriented towards vegetables and fruits for local markets, which is actually what would be most beneficial [...] as well as all the other environmental benefits of shorter supply chains, highly biodiverse farms in rural areas and things like that. We've been trying to push a lot of that stuff through Talamh Beo. We're trying to demonstrate a little bit the benefits of another agricultural model. And I suppose that's what agroecology is. When we talk about agroecology we're really talking about another agricultural model, like I said, not just for production but for society, so it's a political project as well as a practical one” (Fergal 2022).

Fergal's example highlights an important connection between Talamh Beo and agroecology, that through Talamh Beo, participants are able to practice the seventh SE principle of agroecology which encourages participation “in political actions to promote agroecological principles and the conditions of their applications” (Dumont et al. 2021:5). Furthermore, Fergal sees the practice of agroecology as contributing to the establishment of the AFS and sees Talamh Beo as one means of promoting it. By gathering farmers with similar goals, values and experience the organization gains strength in numbers to achieve stronger political intervention in order to change conditions of the mainstream food system to be better adapted for agroecology. Bridget also recognizes the political importance of Talamh Beo:

“...there's no agroecological representation on the CAP policy [...] it's deliberately kept out. By the government, you know. These guys don't want the agroecological people at the table. But you know, the only way that you're ever going to get there is if you can build your numbers up enough. So yes, I mean, organization is really critical for that, and that does help” (Bridget 2022).

Talamh Beo therefore plays a critical role for the advancement of a vision of an AFS for its members. More than just providing networks, education and a political channel for engagement, Talamh Beo is an organization through which like-minded voices are united in pursuit of change. Participants who are members of Talamh Beo, often spoke about the organization not as a foreign body which they are attempting to influence but rather very much as a part of their own arsenal for enacting change. Perhaps the clearest example of how participants own aspirations were equated with the aims of Talamh Beo comes from Thomas, who when asked what future he would like to see in Irish agriculture answered;

“Well, you just asked me what's Talamh Beo doing” (Thomas 2022).

6.5 Difficulties

6.5.1 Inequalities Caused by The European Union's Common Agricultural Policy

One commonly mentioned topic amongst participants was the European Union's Common Agricultural Policy - the CAP. The CAP aims to support farmers and their livelihoods, promote sustainable management of natural resources and to support rural economies by doing so (European Commission 2022). Some participants, however, see a different side to the CAP, one where support is mostly oriented towards big scale industrialized farmers, and thus causes inequalities between such farmers and alternative farmers. In other words, the participants express a general experience of institutional discrimination, instead of support.

Sinéad for example said she believes in the CAP and thinks that the CAP payments are brilliant for agricultural producers. However, she also said that it is unfortunate that all those payments are directed towards large intensive farms. This then creates an unfair competition between large and small scale producers. Because the CAP payments are distributed per hectare of land, big farms receive higher payments and are therefore able to accumulate more resources such as land. This differs from the experience of small alternative farmers who own smaller plots of land and therefore receive a significantly smaller amount of financial support.

“Unfortunately, at the moment, all those [the CAP] payments drive intensive systems, and in Ireland, they're paid per hectare. So those who can will accumulate more land, which means they get more payments, which means they can get more land. And those of us in small patches, a little bit of money, and you can't, you can't compete. So it can distort land prices, so access to land is a big issue” (Sinéad 2022).

Sinéad further explained how even in the new CAP designs inequality can be seen in the context of increasing biodiversity in agriculture. Here, payments are adjusted according to increases in biodiversity. This means that farmers who start with lower levels of biodiversity receive higher payments for increasing biodiversity than do farmers who start with higher levels of biodiversity. Here, again, we can see how agroecological farms, farms which explicitly aim to have the highest possible levels of biodiversity, are seen as being institutionally discriminated against by the CAP.

Thomas also expressed his dissatisfaction with the CAP payments. Similarly to Sinéad, he sees the CAP benefiting only large scale industrial food producers while barely recognizing small scale producers who apply alternative farming methods.

“...small farmers and producers like us, we barely get enough payments that will cover a certification and probably cover half a certification. So we're at a loss straightaway. And also then we're producing food that has higher labour and cost inputs and competing with a market that has all subsidies in the background. So CAP has essentially been a way of subsidizing the industrial cheap food system” (Thomas 2022).

Thomas's quote highlights a slightly different problem than that which Sinéad discusses. While Sinéad's example focuses on inequalities, Thomas wished to highlight the difficulty of market prices for food. Alternative farmers have higher costs in production partially due to using less mechanization and better quality inputs. Additionally, they are competing with a heavily subsidized production system. By flooding markets with low-priced foods, the industrial food production system pushes alternative producers into a relatively small and niche markets, as consumers mainly opt for the cheaper foods. These findings confirm the state of the agroecological market in Ireland as Blaix (2020) who emphasizes that agroecology is pushed into niche markets due to aggressive competition from agri-food industries that are able to dictate production and pricing of food markets.

Bridget, likewise mentions the CAP when talking about inequalities faced by agroecological farmers. She specifically gives a personal example of how CAP discriminates between farming types by comparing the payments which she received to those of her neighbour. While both Bridget and her neighbour farm on the same type of land, the neighbour is an industrial producer while Bridget is an agroecological farmer. Bridget received 26 euros per hectare while her neighbour received around 900 euros per hectare. She explains that such inequality spills over into grander public narratives of productivity in agriculture. Specifically, the narrative goes that large, mechanized farms are seen as more productive than alternative farms, and thus are seen as deserving of more investment in order to stay productive. This is a unique challenge that agroecological farmers face, that of not being understood as being productive despite the various ecological and social contributions that they make to society (Wezel 2018).

From the examples mentioned above we can see that the participants, while discussing similar issues in regards to the CAP, highlighted different difficulties that it contributes to. Taken together, an image of institutionalised discrimination emerges whereby industrialised farmers are promoted in ways which positions them

to have better access to land and finance and better positions within markets. A narrative of productivity is also seen to emerge whereby the differences in funding received between alternative and industrial farmers are justified on the basis of an idea of productivity. Therefore, participants understand the CAP as a mechanism which supports structural constraints that limit the ability of alternative producers, such as themselves, to compete with the mainstream industrial food system. Perhaps another way to phrase this same conclusion is that an alternative, ecologically and socially oriented food system, is restricted by policies which tip the scales in favour of an industrial food system.

6.5.2 Lack of Education for Agroecology

Many participants mentioned a lack of traditional farming knowledge coupled with a lack of suitable education for agroecology as difficulties faced by agroecological farmers in Ireland.

Kevin mentioned how there is little to no traditional knowledge used on Irish farms currently as farms have been mostly standardized and specialized. Pat likewise agrees that one can see an overarching loss of practical skills among farmers in Ireland due to a mainstream push towards specialization in the agricultural sector. Additionally, Kevin says that agroecology is built on traditional knowledge which has been largely ignored in formal agricultural education which is instead mostly based on the use of fertilizers and chemicals:

“They [conventional farmers] all go to agricultural college, they're all taught to use the same fertilizers and chemicals. I don't think they even look at seeds” (Kevin 2022).

This problem of lack of traditional knowledge was mentioned by Fergal as well:

“...we've got this gap, a gap in the traditional knowledge in Ireland” (Fergal 2022).

He further explained how his application of agroecology is not so much different from the production methods people used in the past. However, nowadays farmers are thought to grow a full field of one crop and the generational knowledge he mentioned is not used at all.

Thomas also acknowledged the lack of an educational system in Ireland that offers knowledge and skills for agroecological farmers. He said that there is no formal education that is accessible to farmers who would like to try and learn more about agroecology. Actually, quite the opposite is the case as that kind of

knowledge is pushed aside and education is directed towards conventional farming practices:

“for 90% of people who would have wanted to try what we're doing, access to open and honest education, about diverse agricultural systems, that's not there. In fact, if you go through a conventional agricultural system [...] it's pushed to a corner, if not mentioned at all. There's a huge undercurrent, constantly pushing towards chemicals” (Thomas 2022).

Moreover, Thomas finds it quite disturbing that the educational system around agriculture is based on the knowledge that has caused so many social and environmental problems:

“...all they're teaching is chemical industrial agriculture. It's like going to college now, and you study economics, the economics you're studying is the same economics has caused the crash 10 or 15 years ago, but it's still the main said knowledge but because of what's happening with our environment and nature [...] it is a disgrace that so much and nearly all of our educational money that revolves around agriculture and food systems goes into just two forms. It's chemical and industrial” (Thomas 2022).

These findings underscore a key difficulty that agroecological, as opposed to industrial farmers face. While industrial farming practices are widely accepted and taught, agroecological practices and skills are not only scarce but they are likewise unrepresented by educational systems. Such findings echo those by Wezel et al. (2018) who emphasize that;

“...a big challenge is to integrate this [agroecology] into more classical, mainstream agronomy and rural development studies, and overall interdisciplinary agriculture and food science programmes at all levels, to educate future actors in sustainable agriculture and food systems.” (ibid.:5).

Agroecological farmers therefore face two challenges which conventional farmers do not. The first of these is developing a base of collective knowledge regarding agroecological farming practices. Where conventional farmers learn from an established knowledge base, agroecological farmers in Ireland are very much at the forefront of learning which practices best apply the principles of agroecology in the context of Ireland. The second challenge is that of communicating, sharing, or educating others about the knowledge and skills which they have found and developed. In order to do so, agroecological farmers, unlike conventional farmers, can be seen assuming advocacy roles through developing organizations such as Talamh Beo which amplify their voices and provide a space for others to engage

with them. In a way, therefore, agroecological farmers are doubly disadvantaged as they are left on their own to both acquire and share agroecological knowledge.

7. Discussion

This section will firstly discuss how the research questions have been answered throughout the analysis by summarizing the main findings. It will then delve into the implications and relevance of such findings for rural development.

7.1 Summary of the Main Findings

The analysis highlights key issues for understanding the motivations and difficulties of practitioners of agroecology in Ireland as they contribute to promoting alternative food systems (AFSs). One key topic covered is that of understanding the motivations for practicing agroecology. The findings suggest that participants' motivations to practice agroecology were significantly influenced by their past experiences - both positive and negative, their intrinsic values, and their knowledge. Specifically, motivations to practice agroecology have been tied to: negative experiences working in conventional agriculture, positive experiences working with alternative agricultural organizations, accumulated knowledge regarding ecologically oriented farming and the negative impacts of conventional agriculture, ecological values which prioritize the protection of natural systems, and social values which prioritize close relationships, cooperation and the sharing of knowledge. In this way, the analysis answers the first research question, detailing what motivates farmers to practice agroecology.

Additionally, these findings add onto and align with those of Drottberger et al. (2021) who discover in a Swedish context how alternative farmers are motivated primarily by socially and ecologically aligned ideas. In their study too, participants felt that financial goals were only significant inasmuch as they did not conflict with their core social and ecological objectives

To answer the second research question of how participants seek to build AFS through agroecology, the analysis details the actions of participants which align with principles of agroecology and contribute to developing AFS. These mostly include SE principle 2 (developing social embeddedness of the food system), SE principle 3 (localizing the food system), SE principle 6 (ensuring autonomy from

mainstream food system) and SE principle 7 (participating in political action to promote agroecological principles). Such actions were shown to contribute to formulating food chains separate from the mainstream food system, which produced and distributed food with a uniquely ecological and social character. Taken together, these practices localized and socially embedded food production which aimed to achieve ecological goals and autonomy from the mainstream food system. They have further socially embedded and politically promoted such food chains by promoting close personal ties, communicating the conditions inherent within the food chain and by establishing a political network for food system change. Therefore, the analysis suggests that the agroecologically oriented actions of participants contribute to developing a unique and distinct AFS.

Finally, the analysis showcases the challenges to implementing alternative agricultural practices. Of the two overarching challenges mentioned, both were structural in nature and therefore highlight that participants perceive difficulties as mainly residing outside of the farm-level. Dealing specifically with the topics of CAP and education, participants perceived that institutional support provided unequal treatment and therefore placed them in a disadvantaged position in comparison to conventional farmers. The analysis shows that participants perceived that such inequalities made it more difficult for them to carry out their social and ecological objectives while staying competitive on the market. In this way, the analysis answers the third research question of understanding how participants perceive constraints which they face when trying to implement alternative agricultural practices.

Additionally, these findings align with Drottberger et al. (2021) and Aare et al. (2021). Drottberger et al. (2021) and Aare et al. (2021) show that in Sweden and Denmark educational systems are adapted for conventional farmers and therefore disregard the needs and practices of alternative farmers. My study adds onto these findings by bringing to light the prevalent perception that the case in Ireland is very much similar to Sweden and Denmark. The findings therefore suggest that further research may be done to define more precisely the presence and functioning of such systems in Ireland.

The findings also show how several SE principles of agroecology relate to the theme of community and together contribute towards building opportunities to mobilize. For example, some participants have shown that utilizing farm walks and social media have allowed them to exchange knowledge and build closer ties with other actors within the food system, thus contributing to the second SE principle of agroecology. The analysis also shows that by building direct, close relationships with customers, the participants have developed more localized food systems, and thus contributed to the third SE principle of agroecology. Thirdly, through the

development of direct and personal sales channels and cooperation with other farmers and small grocers, the participants managed to build autonomy from the mainstream food system, thus contributing to the sixth SE principle of agroecology. These examples highlight how the achievement of SE principles 2,3 and 6 were approached through the development and utilization of close community ties within the food system. They further suggest that having such close, more personal connections with small grocers, consumers and other alternative farmers builds community cohesiveness amongst actors involved and interested in AFS. Such social networks therefore might prove to be useful in creating opportunities for mobilizing action aimed at food system change. In this way, the socially embedded nature of SE principles 2,3,6 suggests that together they feed into the realization of the seventh SE principle of agroecology, that of participating in political action. This can be seen in the example of Talamh Beo which provides a space for like-minded farmers to get together, share knowledge, skills and information and politically intervene to achieve the change in the food system they would like to see. Therefore, spaces such as Talamh Beo, might play an important role for the realization of AFS, as such spaces enable like-minded individuals to form ties with communities with common goals.

7.2 Implications for Rural Development

This thesis shows relevant findings for rural development through examining how farmers think, how they act and what constraints them.

Many scholars write about possible benefits that agroecology could provide to societies and their environments (Wezel et al. 2018, Gallardo-López et al. 2018, Anderson et al. 2019, Altieri & Toledo 2011, Anderson et al. 2021, Palomo-Campesino 2021). Specifically for rural areas, agroecology is claimed to be able to protect small scale family farms, local food producers and rural communities, while providing healthy and ecologically produced food (Wezel et al. 2018, Anderson et al. 2019, Oteros-Rozas et al. 2019). As a guideline for achieving these benefits and to enhance our understanding of what constitutes an agroecological production system, six ecological and seven socioeconomic principles of agroecology were developed (Dumont et al. 2021, Nicholls et al. 2016). However, even though valuable, it is not clear at first glance why people practice such principles. Therefore, it is important to understand what motivates some farmers to try to achieve these principles even though they are not incentivized by short term financial gains. This thesis thus contributes to the literature regarding agroecology

and alternative farming methods in general by providing an understanding of the different logic on which such methods are predicated.

By discussing the motivations of agroecologically motivated farmers this study contributes to understanding what sorts of logic leads farmers to oppose and reject a conventional system of agriculture through the use of agroecology. While academic literature deals often with the ways in which the principles of agroecology promote various benefits and oppose conventional agriculture, the literature is less vocal about the characteristics and reasonings of the people who actually do so. Moreover, the literature rarely discusses the many purposes and ways in which agroecological principles are understood and employed. This thesis thus sees agroecological principles as a means for achieving the goals of alternative Irish farmers rather than seeing Irish farmers as a means for achieving agroecology. In this way, the thesis contributes to the literature by uncovering the values, motivations and purposes for which agroecology is employed within a specifically Irish context to achieve the goals and motivations of alternative Irish farmers.

This study further exemplifies the actions through which agroecologically motivated farmers in Ireland act to realize their motivations. Throughout the findings the participants emphasize the importance of community, of close and personal ties within food chains, of sharing knowledge and information, of working by a cooperative rather than a competitive approach to farming, of political organization for representing their interests and finally of functioning autonomously from the mainstream food system. These findings add to the literature on agroecology as they detail the ways in which agroecological farmers within Ireland, as a specific and scarcely covered context, approach the achievement of their goals. It therefore expands our understanding of the context specific manifestation of the application of agroecology within Ireland. Furthermore, the findings are relevant specifically for the agricultural field in Ireland. By explaining the ways in which Irish farmers utilize agroecology, it suggests methods by which other food producers may approach participating within such a system which the findings show provides autonomy and community for farmers, serves to improve the environment and provides transparency for consumers. These findings are particularly relevant for rural Irish areas given the overwhelming focus on industrial production which has damaged environments and social conditions.

Finally, this study deals with the constraints that agroecologically motivated farmers face. These were found to be overwhelmingly structural and institutional in nature and included perceived inequalities in the CAP and in the educational system. Both were understood as being biased towards supporting an industrial

system which contradicts the goals of participants and disadvantages them within the agricultural sector. In regards to literature these findings confirm previous findings (Drottberger et al. 2021, Aare et al. 2021, Jouzi et al. 2016) of the challenges faced by alternative farmers as being located outside of the farm-level and being predominantly structural in nature. These findings are significant for rural development in the context of Ireland given the problems associated with the practice of specialized industrial agriculture such as high GHG emissions, biodiversity loss, polluted soil and waterways and social pressures. Therefore, these findings highlight how farmers acting for an ecologically and socially oriented agriculture are structurally constrained and thus how the problems of Irish agriculture are perpetuated rather than challenged.

8. Conclusion

This study seeks to uncover how agroecological farmers in Ireland are motivated to practice agroecology, how such practices lead them to develop alternative food systems (AFS), and which difficulties they confront throughout this process. The study attempted to achieve these aims by using a phenomenological approach to look into how participants' experiences, intrinsic values, previous knowledge and personal goals influence their actions. Furthermore, the study analysed participants' actions in relation to the principles of agroecology and by doing so established the ways in which their actions contributed, through agroecology, to resembling SSE and formulating AFS. Finally, by uncovering the difficulties that the participants experience, this study provides an input into what might hamper the success of the participants to create AFS in the context of Ireland. The findings of the thesis prove interesting for rural development discussions as they highlight some of the many ways in which initiatives to re-embed food systems within social and ecological processes are occurring. In doing so, this thesis showcases the motivations inherent within, and challenges faced by, a particularly staunch resistance to industrial agriculture. However, the findings also emphasise the character of such farmers as well as the methods that enable them to achieve their goals. Thus, the thesis provides an understanding and awareness of a fairly underrepresented group of farmers dedicated to improving food systems. It therefore provides knowledge relevant for approaches to re-directing rural development towards more social and ecological motives within the field of agriculture.

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