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The Relevancy of Stakeholder Engagement in Aiding the Sustainable Shift – an investigation through the eyes of farmers

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Abstract

With growing awareness of the agricultural industry's struggle to internalise and implement the sustainability shift, new methods for aiding the shift are being sought. As a growing number of findings can connect with sustainability challenges, this prompts investigations to recognise the results and consider how we can pivot existing actors' potential by leveraging social factors amongst stakeholders. At the same time, the relationship between agricultural cooperatives and their farming members has long been perceived as 'naturally sustainable', with little insight on its current and future relevance. In consideration of the growing challenges ahead, this investigation sought to identify how the social factor of stakeholder engagement gave the farmers a new understanding of its capacity. of the relationship in empowering farmers to take control of the situation.

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1 Introduction

1.1 BACKGROUND & DEVELOPMENT OF RESEARCH ARENA

Agriculture – a industry that can be witnessed in varying magnitudes across all countries which has been highlighted as a critical contributor to our world's environmental issues. Yet, on that same extremity, it is deeply embedded in many reports as a potential arena to prevent further societal and environmental damage and ultimately help achieve the planet's sustainability goals (*A Green Growth Strategy for Food and Agriculture*, 2011, p. 7; Frison, 2016, p. 3).

With the agricultural industry's developments leading to the flourishing of populations and creating the 'normal' as we know it today, it is apparent the industry can recognise opportunity and implement change (Bodin, 2017). In light of the detrimental flow on-effects that have occurred mainly to the environment (*A Green Growth Strategy for Food and Agriculture*, 2011, p. 8), it seems the industry can overturn the damages made redirect the industry for future success.

Upon viewing a snapshot of the industry today, a complex network of activities, research and technology can be observed. There is also demonstrated interest in the industry from a wide variety of individuals and groups alongside the continued involvement of governments (Sarkis, 2012). It would seem the industry is well-positioned then to comprehend and work towards achieving change as has been articulated (Bodin, 2017). Yet despite the good intentions established, sufficient change in the face of what is essential for the industry is not yet occurring (Mills et al., 2017).

Globally, the basis of change across many industries (including agriculture) has primarily been driven by significant developments in technology, which has been aligned with increasing productivity and outputs (Marsden, 2012). Yet considering the necessary changes required in agriculture today, it seems a diversification in the drivers of change are needed. As Pugliese points out, "innovative solutions are no longer chiefly derived from technological progress, as was the case during the modernization of agriculture, but are also the fruit of new methods of organizing and managing processes and information within and between sectors; within territories and between them" (Pugliese, 2001, p. 118). These thoughts reinforce the importance of comprehending change beyond simply tangible apparatus in the form of technology development,

but to extend the thinking and consider *how* it can take place also. So, however we choose to perceive the progression of industries so far, it is evident that how change is fundamentally gone also needs to be reviewed.

Considering why the agricultural industry is struggling to meet targets set on it, it is clear many factors can influence this (Mills et al., 2017). Of course, the specific nature and characteristics of an industry also play a role in the relevance or significance of a factor, with particular regard given to how they may amplify the challenges of change even further (Darteh et al., 2019). As the agricultural industry is comprised of "complex, interdependent ecological and social systems that require integrated management approaches" (*Collective action and empowerment*, 2016, p. 13), this warrants a unique investigation of the relevant factors influencing the success of change in agriculture.

One of the known ways to identify factors and learn how they contribute to change is by exploring previous change attempts, which can larger be referred to as initiatives in the agricultural industry. A specific problem has been acknowledged, and a series of strategies are developed with particular activities to try and overcome the problem (Azevedo et al., 2018; Hubeau et al., 2017). Some of the industry's previous attempts include initiatives based around concepts such as biodynamic, organic, food miles, which have all offered an approach to the industry with the broader ecosystem in mind (Eidt et al., 2020; Groot Kormelinck et al., 2019). While all these concepts have contributed to aiding change in the industry towards something changing industry practices towards something more viable, they have all struggled to move beyond a grassroots level. Considering where the industry is at today, change is typically all but referring to the idea and concept of sustainability in practice. The concept is perceived as an 'all-encompassing' concept that offers a practical framework for the industry to connect with (Bonini and Swartz, 2014; Nilsson, 1998). It includes elements from the concepts mentioned above yet seeks to establish a balanced agenda that captures the reality of operations while stepping away from the typical 'business as usual' approach (Sarkis, 2012, p. 17).

Contemporary sustainability perspectives have provided context for industries and individuals alike, as they seek to realign behaviours and actions more appropriately (de Olde and Valentinov, 2019)). By also being the basis of the United Nations Sustainable Development Goals (SDGs),

this has placed sustainability into the immediate agenda of many (Ferri and Leogrande, 2021; Schwettmann, 2014), making it one of today's most applicable concepts to direct change by (Kuenkel, 2019). Hence why it has become a key word in our generation's vocabulary and one expected to remain in the future. Yet, despite its apparent potential, sustainability is not exempt from challenges, particularly given "implementing sustainability is fundamentally different from implementing other strategies" (Epstein and Buhovac, 2010, p. 1). It has become a priority for the industry to understand and how to manage, as "clearly no single blueprint exists for how to succeed" (Bodin, 2017, p. 1). Yet, we cannot afford to remain idle, which is why it will be the focus of this investigation.

In 2003, Burnes identified factors that had the most significant impact on the success of sustainable initiatives, with initiatives being a well-understood mechanism for change; this included the lack of management support, the lack of clear communication, and the lack of stakeholder engagement, among others (Burnes, 2003). Across the factors noted, the majority could be typified as social aspects – a key pillar of sustainability's framework and an aspect that previously has not been considered a critical driving force for change.

Considering how these findings can be contextualised in the agricultural industry, significant merit could be gained in investigating how these social factors can be influenced, the relevancy this has on aiding the sustainable uptake. Or as Bodin (2017) articulates, "one way of approaching this puzzle is through the lenses of the participating actors and the ways in which they engage in collaboration with each other" (Bodin, 2017, p. 1), which would include understanding *who* (or which actors) this applies to. We are aware of the rich array of networks and depth of actors present throughout the agricultural industry. While everyone has the potential to contribute in devising "effective and long-lasting solutions to environmental problems", insight is lacking around "how well a collaborative arrangement 'fits' to the specifics of the environmental problem being addressed" (Bodin, 2017, p. 4).

These remarks have triggered the desire to develop a unique investigation within collaborative social networks in agricultural systems to help aid sustainable change. While we can continue to focus on other aspects such as technology, unless a broader spectrum of factors is considered, we will likely continue to 'short-change' ourselves and the potential of any new developments.

1.2 STRUCTURE OF THE THESIS

This thesis consists of six parts. Beginning with a broad background to indicate what has motivated the overall direction of the study leading to a specific aspect to investigate further, with particular research questions, along with highlighting the core terms of work. In the second part, the ideas referred to in the first part will be put into context - outlining the contents of the case study – specifically the cooperative, the selected initiative, and the farmers. given the location of the investigation that will take place in Norway. While the third part will include the methodology along with the experience of the investigation. Part four will present the investigation results in tandem, discussing the two sub-research questions and the overall research question. The fifth part will delve into the investigation's drawn conclusions, limitations, along with comments on potential future investigations. Each part will begin with a brief introduction, outlining its subsequent content.

1.3 MORE SPECIFICALLY

Typically, governments have been at the forefront of implementing change in society and within industries. While it could be expected for their contribution to continue as the main officiators of policy to direct change, it is becoming more evident the value that other actors throughout industries bring to the table. Elinor Ostrom, the political economist, perhaps best known for her 1990 book, *Governing of the Commons*, established a new perspective and opportunity for change through the private sector. As given, "neither the state nor the market is uniformly successful in enabling individuals to sustain long-term, productive use of natural resources" (Ostrom, 1990, p. 1). Which prompts thought into what factors make private actors relevant to encourage, aid and facilitate change? Awareness is growing around the potential contribution that other actors throughout the industry can provide to achieve global environmental goals (Sarkis, 2012).

However, at present, the information or rationale behind their potential contributions is somewhat unknown (Europäische Kommission and Europäische Kommission, 2016).

While there is relevance for this field of investigation right throughout the industry, it has been identified that on-farm operations are an operating region of the industry with significant opportunities to improve (Borgen and Aarset, 2016; Gripsrud et al., 2000; Ward, 1993). Further, with farmers as the key actors involved here, being "ready to speed up towards a regenerative transition" (Bösel et al., 2020), it seems intuitive to consider these existing arenas in the supply chain with great potential for change.

In the day-to-day task of operating farms, farmers are the primary actors from the industry to run their farms and ultimately decide upon the strategy and array of activities that occur. However, it is also common for farmers to seek out the services and build relations with many others across the industry, particularly those next in the supply chain, to which farmers typically supply their products (Bijman et al., 2010). The range of actors operating in this region are naturally involved in the industry, both in up and downstream sections. Which places them in an intermediary role where "activities can be initiated in the research arena as well as through commercialization and implementation in farming" (Lantmännen, 2019, p. 4). However, the specific contributions and extent of the relationships shared with the range of actors can vary (Lyson et al., 2008).

Extensive literature highlights the unique relationship agricultural cooperatives share with their farming members, which has been prevalent since their first 'documented inception' in the 1840s (Giagnocavo et al., 2018; Lamarre et al., n.d.). Their unique business structure and purpose of operation are built directly upon the needs of their farming members. Over time, cooperatives have prompted growth and development in the capabilities of their businesses from the inside out – acting as "a catalyst to empower small agricultural producers" (Banzai, 2014, p. 161) and utilised the internal strengths of the cooperative to sustain business development (Fregidou-Malama, 2000, p. 5; Giagnocavo et al., 2018, p. 1). In a sense, cooperatives have been perceived as 'economically sustainable' by "adopting aggressive market-oriented strategies and re-thinking their market focus" (Kalogeras et al., 2005, p. 9) and are considered to be working more closely with their farming members (Candemir et al., 2021). Aspects of stakeholder engagement (one of the critical factors identified by Burnes earlier) and other social aspects have been well connected to cooperatives

and their farming members throughout history. Cooperatives are a business type based on social inclusion and shared benefits – where they have "relied on collective collaboration and coordination in order to meet social-economic and social-ecological challenges" (Giagnocavo et al., 2018, p. 1).

Globally, agricultural cooperatives have and continue to be involved in numerous 'sustainable' initiatives that extend from their primary scope of business, such as in the management of unsustainable deforestation of palm kernel found in feed supplements and working with technology in the conversion of vehicles to biofuel) (Buskenes, 2019; Felleskjøpet, 2019). Which highlights the potential opportunity to learn from these initiatives and consider how stakeholder engagement was a relevant factor in their success.

It is perceived by many that cooperatives 'naturally' offer and encourage stakeholder engagement. Still, as we know, times are changing and building a business case for sustainability has to be created and managed – "it does not just happen" (Schaltegger et al., 2012, p. 5). Further, with differing opinions and understandings of how best to act on this (Fregidou-Malama, 2000, p. 10), there is value in understanding how it can be relevant.

Upon looking into the existing theory on stakeholder engagement and why it could be a viable social factor to consider for this investigation. Firstly, it is a social phenomenon that recognises how engagement with stakeholders can influence the implementation of actions (Rooijen et al., 2021). Which, upon investigating, could prompt valuable insight and understanding as to how "the specific types of social ties actors develop while engaging in collaboration ... that build on deeper relations... can facilitate such changes" (Bodin, 2017, p. 2).

1.4 MAIN RESEARCH QUESTION

Given stakeholder engagement is a social phenomenon and 'factor', which has an influential capacity in overcoming the challenges of sustainability, this prompted the question of how social aspects have been explored previously to draw on social 'data' and ultimately tell a story? While there is existing knowledge on what makes this phenomenon relevant for other cases in society today, this is a newly explored topic for the agricultural industry. As with an understanding of how

the nature of engagement specifically functions between a cooperative and their farming members, it could promote the significance of "the patterns in which actors collaborate with each other (or do not)" (Bodin, 2017, p. 9). Allowing this investigation to contribute to the industry's toolbox for achieving sustainable change and to provide insight for other industries as we seek to aid the overall implementation of sustainability into our global operations.

A key contributor to the literature on investigating phenomenon recommends that by leveraging on "naturally occurring data to find the sequences ('how') in which participants' meanings ('what') are deployed", this can help characterise a phenomenon in its specific instance (Silverman, 2006, p. 44). Making it clear an exploratory investigation was the ideal approach, first to characterise the phenomenon, but also how this phenomenon has been relevant, which could provide insight as to its future relevance too, with the main research question of:

How can the factor of stakeholder engagement be relevant for farming members of agricultural cooperatives in aiding the sustainable shift of on-farm operations?

With the leading research question's exploratory focus, this helps to prioritise the direction of this thesis first and foremost to identify how stakeholder engagement is a relevant factor for farming members of agricultural cooperatives in the realm of aiding on-farm sustainability. This will be answered through the exploration of two sub-questions, which seek to direct the investigation to connect with the phenomenon in both the current situation as well as the potential future:

1.42 RESEARCH QUESTION 1

How are farming members engaging with their agricultural cooperative on the basis of on-farm sustainability?

1.43 RESEARCH QUESTION 2

How do farming members of agricultural cooperatives perceive future engagement with their agricultural cooperatives on the basis of on-farm sustainability?

2 Conceptual Distinctions & Context

2.1 INTRODUCTION

The purpose of this section is first to address and formalise how sustainability will be understood for the sake of this thesis. This is followed by an overview of agriculture in Norway, agricultural cooperatives, and a brief overview of TINE and their Animal Welfare initiative.

2.2 WHAT IS SUSTAINABILITY?

In the time that has passed since Brundtland first articulated the word sustainability with a description in the 80s, a rich array of interpretations has since followed (Fischer et al., 2007). While some would argue this has encouraged a wider application of the word, its themes, and agenda, many have also criticised it has since become overcomplicated. While many have sought to define and describe succinctly what characterises a sustainable concept, society has been able to connect with the word and its meaning on its broader and perhaps more normative role as a societal principle (Grunwald, 2007, p. 247).

For this thesis and investigation, though, the concept of sustainability will be based on the original interpretations of the word by Brundtland. With the word sustainability included in both research questions and the investigation's overall question, it seems valid to confirm what is meant by this. This investigation leans on the concept of sustainability to help direct what sort of on-farm operations are being sought. As mentioned in the introduction, numerous ideas have been put forward to the industry to help encourage a better future industry state. Yet, with sustainability having had the greatest 'internalisation' to date, with an ongoing drive towards it in the immediate future, it seemed relevant to apply it to this. Further, no 'measurement' of sustainability will take place in this investigation. While sustainability is connected to on-farm operations, the investigation does not seek to quantify how sustainable on-farm operations have become.

2.3 AGRICULTURE IN NORWAY

The investigation took place in Norway, a country where only 3% of the land is used for agricultural production, which can be considered "small-scale compared to many Western

countries (Petter Stræte, 2006, p. 1434). Which in turn, has rendered the industry to often be perceived on the international scale as “overwhelmingly peripheral and marginal” (Bjørkhaug and Rønningen, 2014, p. 53). Plots of land can be found dotted throughout the country, making cultivation typically a challenge. Further, as the country is often divided by fjords, mountains, and forests, society is not always easily accessible by farmers. Norway’s northern location provides a growing season that is approximately half the average length of other areas throughout Europe. Yet despite all of these challenges, the country is incredibly proud of its roots, mainly as it was not long ago that Norway was once a nation of small peasant farmers. Today, it is still common for many Norwegians to only be one or two generations away from living on a farm (Ingebritsen, 1995, p. 354).

The dominant form of farming found in Norway are family farms, meaning that the land is “owned and managed by the farmer who also lives at the farm with his or her family” (Wiborg and Bjørkhaug, 2011, p. 2). In Norway, family farming has a special status attributed to it, in being “codified in the legal, and constitutional provisions for agriculture”, also known as the Odelsloven. This puts a ‘mandate’ on farms to remain within the family, where farm ownership is passed on to the eldest child (Ingebritsen, 1995, p. 354). This has led to farms typically remaining in families for generations, but more recently, these laws have begun to ease back, perhaps in line with the rest of society also changing from the old ways.

Today, in Norway, the yearly agricultural agreement (*Jordbruksavtale*), which features shared goals between the government, farmer unions, and cooperatives are developed and formalised is still being used since its first inception in 1930. In this agreement, farms are expected to deliver on policy goals, which includes producing for the Norwegian market, contributing to maintaining rural settlements and environmental goals. Due to the high production costs incurred in Norway, farmers are heavily dependent on state support, which typically comes through as subsidies and protection from import competition. Norwegian farmers are known to receive “the highest subsidies and protection from import competition of any agricultural producers in Europe” (Ingebritsen, 1995, p. 352).

Production systems include dairy, meat, grain and vegetables, yet this can vary throughout the country. Dairy is the largest sector, and it is common even in Norway’s remote regions, which

“has been extensively supported by family farm policies, which can be partly attributed to it being a labour-intensive sector” (Bjørkhaug and Rønningen, 2014, p. 54).

Of course, it has not always been as simple; for example, in 1987, Norway’s Prime Minister – Gro Harlem Brundtland (who was also the first to voice the global definition of sustainability), initiated a reform of the state's agricultural policy. Yet, despite the strong opposing views held to liberalise the industry and conform to international standards, her government was unable to succeed (Ingebritsen, 1995, p. 359). In the years since, further attempts to revolutionise the industry have taken place, such as the declared political objective to increase competition in the dairy sector, to counteract the monopolistic position of TINE (Petter Stræte, 2006, p. 1436).

In addition, political attempts have deepened regarding climate and environmental policies. However, as was acknowledged by Farstad et al. (2020), while these are “still based on sectoral responsibility”, it means change is reliant on actors within systems to prompt and instigate the necessary measures within industries, rather than the government coming down on all industries from the top (Farstad et al., 2020, p. 5).

With the varied challenges facing the industry, it made for an interesting case to explore, particularly with the continual discussion of whether "food production be a priority in a country that, in many respects, cannot compete in terms of economically efficient food production" (Bjørkhaug and Rønningen, 2014, p. 56). Thereby rendering the industry to a position of high importance – a decision of how best to direct change and see the industry meet its objectives and thrive.

2.4 AGRICULTURAL COOPERATIVES

Agriculture, in the form of farming, has been prevalent in Norway for centuries; cooperatives, though, are a much more recent occurrence. While the Rochdale Society of Equitable Pioneers developed the cooperative model in England during the year 1844, the first officially documented Norwegian cooperative was a dairy cooperative, established in Rausjødalen in 1856 (Samvirkene, n.d.). However, it is understood that the broader concept of ‘collaborating’ has taken place across

farms and the regions, for generations, with the Norwegian word of *dugnad*, representing an informal way of achieving work together for the common good (Grimley, 1950).

The role cooperatives have held within the Norwegian agricultural industry throughout history has gone through a series of slight deviations, which slightly differs from the commonly perceived linear line based on the nature of today's industry. With the country's political framework and institutional order in the earlier 1900s largely supportive of the egalitarian character of Norwegian cooperatives, this ensured a steady role for the cooperatives in the industry right into the late 1930s. Which also saw cooperatives closely involved in the yearly agricultural agreement, as mentioned earlier. Yet from there, as a clearer understanding of how the industry in other nations took place, this began to trigger a more corporatist approach for the cooperatives, which peaked around the mid-1980s (Grimley, 1950). With industrialisation prompting a need for the cooperatives "to link other stages of production and marketing to the farm on a more systemic basis than had previously occurred within a production agriculture composed of independent farmers" (Hogeland, 2006, p. 4).

With a strong presence in the industry, the agricultural cooperatives were also given the role of ensuring market balance in the meat (Nortura), dairy (TINE) and grain sectors (Felleskjøpet) as part of the yearly agricultural agreement. This role is still maintained today by the cooperatives; however, the task is undertaken by a separate 'business' than the core business, which works with their farmer members to promote fair competition with other companies operating in those sectors. Still, this is often perceived to ensure their continued involvement and majority in the industry, which has perhaps even prompted a "co-evolutionary pattern", where the institutional environment within which the cooperatives operate has been largely influenced by themselves (Borgen, 2002, p. 12).

More recently, laws surrounding cooperatives as a unique business type was officially recognised in Norway at the beginning of 2008, when The Co-operative Societies' Act came into force (Samvirkene, n.d.). Cooperatives here have shown the ability to adapt and pivot the industry's directions to meet the market's changing needs. Where they have "transformed from a governmental-driven strategy with farming and public goods in focus into a commercialised business with farmers in focus", taking Norwegian farming to a competitive level with market

orientation (Klerkx et al., 2017, p. 7). However, times are changing, where “their golden age seems now to have reached an end”, triggering renewed attention to the cooperative ownership model.

2.5 NORWAY’S NATIONAL DAIRY COOPERATIVE, TINE

TINE AS is Norway’s national dairy cooperative, which could be described as “the most important actor in the milk sector in Norway and has been in this position for decades” (Petter Stræte, 2006, p. 1435). TINE as a company contributes to the Norwegian agricultural industry with several key roles, including buying milk from dairy farms, processing the milk into a range of products, as well as manages the process of selling and distributing their products right across Norway and even into the international market on a tiny scale.

Before TINE became a nationwide company today, local and independent dairy cooperatives could be found across the country, where the surrounding farmers would deliver their milk. In general, industry and Norwegian society developments saw these individual dairies progressively form clusters in the regions. TINE from the 1930s onwards (which aligns with the same period when cooperatives in Norway really ‘took off’) began to start pooling these clusters into regional units of dairies, which TINE soon took ownership of as more and more farmers began to deliver to the growing *TINE*. Over the years, TINE has steadily become the predominant actor in Norway’s liquid milk supply, where in 2000, TINE purchased 99% of the milk produced on the dairy farms in Norway and owned most of the dairy processing plants (Petter Stræte, 2006, p. 1435). At the end of 2019, TINE’s farmer membership base was comprised of 9567 owners, who were delivering from 7728 enterprises (farms).

TINE has contributed and taken part in the industry’s transformation in the past decades. With specific reference to the concept of sustainability, this is even embedded in the company’s goal – “to ensure a sustainable Norwegian milk production throughout the country”. Recognising that this will be an ongoing agenda for the company as “it’s the guiding star” in ensuring dairy farming continues viably in Norway. With the “winners of the future”, ultimately those who are able to grasp the notion of the environment within the scope of their business. A recent annual report from TINE reiterated the importance and contribution that the ideas of sustainability bring

to the company's operations and activities: "sustainability must be a natural part of TINE and well-integrated into operations, whether it is new and healthy products or measures to reduce greenhouse gas emissions throughout the value chain. A mention was also made about the key role TINE's *Rådgivers* – advisors (a team of approximately 300 people) provide. In that have the immediate responsibility of liaising with their farming members and milk producers of the company to help organise and "anchor" sustainability topics with the farmers (TINE, 2019).

Further, upon consulting with several TINE staff members on the topic of TINE and the development of sustainable initiatives, sustainability is a paramount topic for the long-term viability of the company. As a company, TINE recognises that "farmers are eager to do something together - and this very much speaks to the cooperative system". However, there is also growing awareness that the relationships farmers have typically held with the cooperative are also changing, along with how the company is operating. Something which TINE understood was a challenge facing other agricultural cooperatives here in Norway also. With the reflection this is "probably because of economic pressure from everything" (Eirik Selmer-Olsen et al., 2021).

3.31 ANIMAL WELFARE INITIATIVE

TINE has been known to engage in a number of areas, both on-farm and off, to help secure the long-term position of dairy products in the future. The table below indicates an array of focus points and their alignment between TINE's stakeholders.

A recent initiative that TINE has had a focus on has been animal welfare, which can be found near the top, right corner of the table, indicating high relevance for both internal and external stakeholders of TINE.

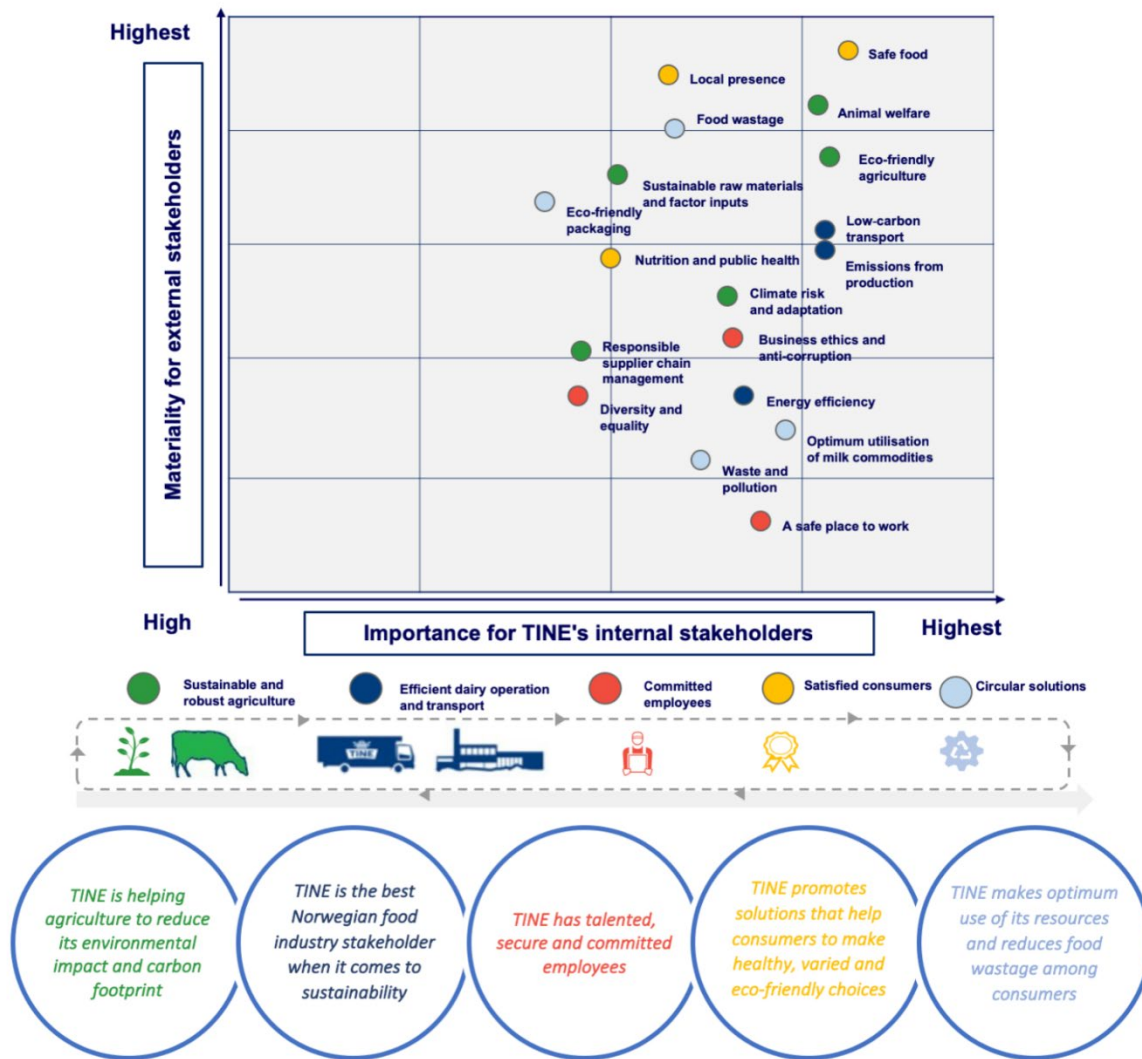


FIGURE 1 ARRAY OF TOPICS FOR TINE (TINE, 2019)

TINE’s recent Animal Welfare initiative was selected as a reference point for this investigation. Thereby offering a specific initiative suitable for building a case around, which had a focus on aiding the sustainable shift on the farms with the specific topic of animal welfare. Animal welfare has also featured heavily recently in Norwegian news, with a series of new regulations having been developed on the topic.

TINE’s animal welfare initiative was initially developed and presented to their farming members in the format of a ‘manual’ which comprised of a series of topics to reiterate the broader relevance

and applicability of this initiative, right across the supply chain. The 12-page document then moved through a series of seven questions which were linked with a range of topics within animal welfare and its contributing factors. This included topics on barns, calves, food and drink, bedding and also the link between happy farmers and good farmers.

The manual was released in the winter of 2019, with the intent to be addressed at local meetings, with suggestions of what could be relevant to include in the conversations. From there, the topic has remained a critical one that TINE has continued to reinforce, as well as through the development of an animal welfare indicator – a digital calculator to score the farmers based on their alignment with the regulations.

It was noted that almost 800 meetings took place with the local producer teams on the topic of animal welfare, with 4000 of TINE’s members attending 173 professional meetings spread over the whole country. While district meetings also took place (more than 600, which included almost 4,500 members), which were in the form of smaller meetings with five-ten participants (TINE, 2019).

With TINE recognising the contribution that they and their farming members have on animal welfare, but also noticing its *growing* level of importance, where the focus is also changing.

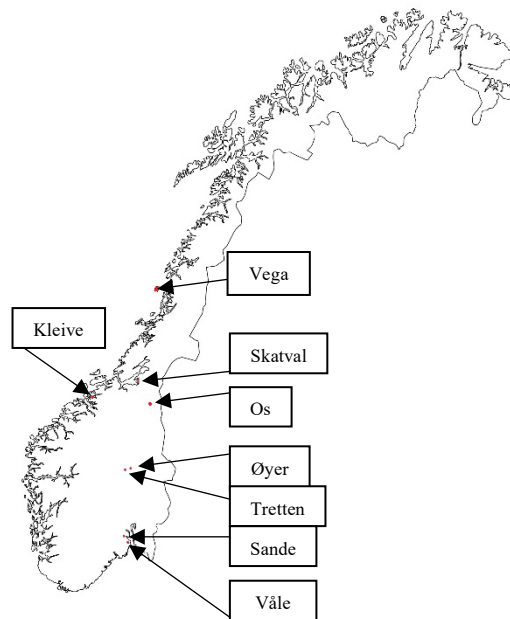
“There is a consumer trend that animal welfare is very important, and so there is a big focus with the consumers, but everybody needs to have a focus on it and work with it. But the focus has changed to have more focus on the activities, and the need for TINE to be in the landscape – or part of the ecosystem in sustainability, actually working with animal welfare” (Eirik Selmer-Olsen et al., 2021).



2.6 THE FARMERS

With the investigation seeking to understand the relevance of stakeholder engagement from a farming member’s perspective, this would be best answered by consulting primarily with actual farming members themselves. With TINE’s animal welfare initiative taking place right across the country, in reality, any TINE farming member could be relevant to the case group. With the researcher’s initial contact at TINE living and working in the Trøndelag region, at one point, it was planned for all of the farmers to come from Trøndelag. However, it was challenging to convince many to participate, so farmers from other regions were also asked. It was a priority, though, to avoid a sample group based on pure convenience. So thought was put into determining whether a farmer would be a good fit for the investigation with effort made to ensure that the group included farmers of various ages, with varying interpretations of sustainability, as well as different levels of engagement with TINE’s animal welfare initiative.

Eventually, eight farmers with varying characteristics were identified, who were acquired through contacts supplied from TINE staff, farmers known to the researcher before the investigation, and one who another farmer referred to join in the investigation. The table below displays the basic characteristics of the farmers in the group, which consisted of farmers from five of the 11 regions in Norway, including three organic farms and five conventional. While seven out of the eight farmers included in the group lived with their families, of those within the group, four were females (between the ages of 31 and 51) and the other four, males (between the ages of 45 and 64).



Name	Sex	Location	Farm Properties
Ingebjørg, b. 1970	Female	Vega, Nordland	Conventional
Gunnar, b. 1963	Male	Skatval, Trøndelag	Conventional
Jorunn, b. 1976	Female	Kleive, Møre og Romsdal	Conventional
Stian, b. 1976	Male	Os, Innlandet	Organic
Birgit, b. 1986	Female	Tretten, Innlandet	Conventional
Maren, b. 1990	Female	Øyer, Innlandet	Conventional
Leiv Tore, b. 1957	Male	Våle, Vestfold og Telemark	Organic
Hans Kristian, b. 1957	Male	Sande, Vestfold og Telemark	Organic

3Methods & Experience

3.1 INTRODUCTION

With little known about how stakeholder engagement can be a relevant factor for farming members of agricultural cooperatives in helping aid the transition of their on-farm practices to become more sustainable, this demanded an exploratory investigation to initially get the topic into motion. Which in turn, triggered the research questions to be developed with consideration in how they could best prompt a broad investigation and capture key points that make it relevant. Other elements that were considered as the investigation’s framework were developed, including the question of what would be appropriate and realistic given the researcher's background, the timeframe for the investigation, and the availability of resources.

With the researcher having grown up on a large sheep and beef farm in Canterbury, New Zealand – a region known for its open pastures and quality food products which are commonly seen on supermarket shelves around the world, this meant typical industry dynamics were understood before commencing the investigation. Further, with the researcher’s farming parents being members of several agricultural cooperatives in New Zealand, this also helped bring a clearer

insight into the variety of relationships farmers typically share with cooperatives and other industry actors. When starting the investigation (September 2020), the researcher had also already been living in Norway for 18 months, with some experience and exposure to the Norwegian agricultural industry. This masters thesis was the researcher's first attempt at a research investigation, so while some experience in research methodology had been accrued from previous semesters in the masters program, there was an expectation that this investigation and thesis creation would be a learning journey for the researcher. Regarding the timeframe for this investigation and the development of this thesis, two semesters were scheduled for the entire project. This began in September 2020 with the development and finalisation of the investigation topic. This led to the field work, analysis, and writing of this thesis document, with the submission at the end of August 2021.

Interest in investigating the topic stemmed from the researcher's observation of a changing attitude towards the relevance of cooperatives in the industry today compared with other business types. There was also a specific interest in the scope of the research by Landbrukssamvirke – an organisation working on behalf of various cooperatives within the Norwegian agricultural industry. This offered the researcher particular support within the agricultural cooperative 'sector' in Norway and access and contact points across the agricultural cooperatives acting within the Norwegian industry.

This part of the thesis will now move into explaining in detail how the investigation ultimately took place. Firstly, an overview of the process that led to the finalisation of the investigation's key problem and research question will be provided, followed by a discussion about the choice of research design. This section will then flow into the explanation of how the methodology was designed, followed by an explanation of how these methods were applied in practice to gain data and lastly, how the data was analysed.

Presently, researchers typically choose to proceed with an investigation in one of two ways – either by following the qualitative approach or by following the quantitative approach, with the potential to combine the two also an option. Both methods can provide quality results for investigations; however, their applicability can vary immensely. Therefore, it was paramount first to explore the

type of investigation that could warrant interesting and new perspectives before deciding which methodology would be applied.

Considering the rationale behind this investigation and thesis to identify and interpret the relevance of stakeholder engagement shared between agricultural cooperatives and farming members today and moving forward into the future, it seemed natural to connect this investigation to a case example in practice. While the researcher had some prior knowledge of the array of cooperatives operating within the industry in Norway, there was some insight into their operations. However, the opportunity was taken initially to begin the investigation with informal conversations with several agricultural cooperatives, including Felleskjøpet, TINE, Nortura and Gartnerhallen, to start building some internal insight and understanding of the reality of these businesses. While background research for the investigation had already started, the researcher had not yet finalised the specific research questions. It was hoped that further insight from the industry could also help highlight current pain points in Norway, which may not have been addressed explicitly in the literature. While at times this was unsettling for the researcher not to have something concrete to be working with, at the same time, it provided the opportunity to remain flexible and open to the investigation's eventual direction. This allowed the investigation to pivot towards something 'more relevant', particularly given the unique circumstances faced by the industry in Norway. This was appreciated by the cooperatives and is an approach that other researchers have utilised – as learning more about a particular setting can help with further decision making on what direction to move towards next, based on what has already been known (Taylor et al., 2015, p. 8).

While the conversations held with the cooperatives were casual, it was evident that engaging with farming members was a challenge – “farmers have different perspectives... but farmers must understand what the consequences are, and that's complicated... So, our job is to help them in understanding that it benefits everybody if it is done right” (Kai Roger Hennem, 2020). These conversations encouraged the researcher to consider more specifically how engagement has been a relevant factor (and perhaps a unique one) for cooperatives and their farming members in recent times. Yet perhaps more importantly – how it could be relevant in the future given the new set of challenges facing the industry ahead.

While the investigation allowed further pivoting and specification of the eventual topic in question, the development of the research question's (or questions') final direction was critical. As "even for explorative questions, a clear research question enables one to base the research process on praxis problems and makes the research praxis relevant" (Taylor et al., 2015, p. 7). As was eventually identified in the introduction part of this thesis, stakeholder engagement was determined to be an interesting angle to direct the broader topic of this investigation. This led to the development of the main research question: *How can the factor of stakeholder engagement be relevant for farming members of agricultural cooperatives in aiding the sustainable shift of on-farm operations?*

The question was worded to try and trigger an investigation of the phenomenon in current times to comprehend understand it and reflect on its potential for the future ahead. As with the industry having already begun an agenda to address the need for increased overall sustainability, there was undoubtedly learning to be made in what has happened to date and how we can maximise this impact. This is why the main research question was then broken down into two specific research questions to direct thought and investigation into the relevance of stakeholder engagement currently as well as upon the future:

RQ1 – How are farming members engaging with their agricultural cooperative on the basis of on-farm sustainability?

RQ2 – How do farming members of agricultural cooperatives perceive future engagement with their agricultural cooperatives on the basis of on-farm sustainability?

With the research questions being decided, this prompted consideration of how best to gain data through an active investigation, engage with it, and ultimately draw new conclusions. As with existing literature addressing several of the concepts and theories linked within this investigation; to truly appreciate and make sense of the engagement that takes place between cooperatives and their farming members on the basis of on-farm sustainability, this first required the establishment of an exploratory investigation to identify the relevant attributes "which are simply unavailable elsewhere" (Silverman, 2006, p. 43). With an evident alignment to Bryman's description of qualitative research as one which will be "helpful in identifying the significance of context and how it influences behaviour and ways of thinking" (Bryman, 2012, p. 402), this reinforced the

applicability of directing this investigation towards a qualitative approach. Which could offer a suitable working platform – one that would allow the investigation to "combine sensitivity to participant' definitions with correlations" (Silverman, 2006, p. 26), and to “empathize and identify with the people they study to understand how those people see things” (Taylor et al., 2015, p. 7).

In consideration of the investigation's initial ideas about connecting the investigation with a case example, this approach would encourage "naturally occurring data to find the sequences ('how') in which participants' meanings ('what') are deployed and thereby establish the character of some phenomenon" (Silverman, 2006, p. 44). It was an approach that aligned with the nature of the research questions. The objective was to understand more deep layers of meaning and happenings and not simply force a static investigation on it, which could render limited conclusions (Silverman, 2006, p. 43).

3.2 RESEARCH DESIGN

Given that the earlier conversations with the agricultural cooperatives prompted a necessary specification for the investigation, the next step was to identify one of these cooperatives to build a case study by connecting with one of their initiatives held with farming members. A specific initiative selected would offer the investigation a particular point of focus to build context around.

The decision of which cooperative and their initiative to investigate further was primarily based on what was available. However, for an initiative to be a useful example to connect with, it was deemed by the researcher that the initiative should have had the intention of aiding on-farm sustainability. Further, it should also have been one which was engaged by a wide variety of farmers and one which had also been recently 'completed'. Across the range of agricultural cooperatives already connected with, TINE and their Animal Welfare initiative were then decided as a good fit with the investigation, with context to TINE and their animal welfare initiative having been articulated in a previous part of this thesis, part 2.

It was determined that the development of a case study would be an ideal way to approach the opportunity to connect a case example with the phenomenon and create an investigation that offered the researcher something tangible and accessible. Further, it was important for the

researcher to keep in mind the point behind connecting with the initiative example – to provide context and not to judge the success of the initiative quantitatively.

3.3 RESEARCH METHODS UTILISED

The choice of research methodology was dictated mainly by the nature of the research questions, which were exploratory and interested in gaining personal responses from farmers. The researcher found it helpful to consider what this data might look like and how best to attain it appropriately, yet also consistently from all the farmers involved. Further, methods were valued based on their potential applicability in the investigation from start to finish and not simply considered relevant at any one instance. Yin's (2009) broader description of qualitative research considers a collection of data from various resources, evaluate the data, analyse the evaluations to produce findings, and then conclude with a presentation of the results (Taylor et al., 2015, p. 13). It was determined this could be well understood through experiences, impressions, and reflections from farming members of a cooperative. Which, in practice, would mean using a combination of interviews and written materials "to capture the contemporary (and/or past) state of some phenomenon of interest" (Mundy, 2010, p. 14).

3.31 INTERVIEWS

Interviews were selected as the primary method for building the case study. It was recognised as a strength of the method to offer access to "an 'authentic' understanding of people's experiences" (Silverman, 2006, p. 125). They were seen as a way of appropriately entering the farmers' thoughts and reflections about their involvement and engagement with TINE's animal welfare initiative, and ultimately, exploring the future relevance of this topic with the farmers.

The challenge with interviews is that they do not tell us directly about people's 'experiences', but instead offer indirect 'representations' of those experiences, as a "particular representation or account of an individual's views or opinions" (Silverman, 2006, p. 117). Which means they still require 'processing' for the data to be comprehended. However, given the broader objectives of the investigation were to consider the *relevance of the phenomenon*, this indicated that actual

experiences would be explored and deemed to be based on the literature to help determine its relevance.

Interviews can also take place in various ways, yet the semi-structured interview seemed to be a suitable style. It prompted some structure and direction to the interviews yet was also flexible enough to allow the farmers the chance to answer as they felt most comfortable with. Furthermore, the slight structuring ensured important theoretical issues were covered in the conversation and helped to give semi-defined categories to facilitate the analysis afterwards.

Silverman (2006) outlined in his book, “Interpreting Qualitative Research”, the possibilities that interviews can provide to an investigation, ideas of which were considered upon applying the method:

- **beliefs about facts** – with interviews allowing a conversation to take place, farmers could state their opinion (or ‘beliefs’ on things). Further, it ensured they could share their impression and understanding of things without the researcher “simply putting words into his/her mouth” (Silverman, 2006, p. 120). This was particularly helpful on the topic of sustainability, which is a concept well known for its ambiguity.
- **feelings and motives** – particularly as a new researcher with little experience in running interviews to gain insight, an easy mistake made is assuming everyone has the same opinion. However, interviews give the option to use open-ended questions, which prompts respondents to decide how they want to answer the question and gives them the freedom to choose words and emotions to articulate their response.
- **past or present behaviour** – the way someone responds (either based on previous actions and behaviour, or what it might be in the future) can be influenced by a wide variety of factors. This would be nearly impossible to consider without first-hand experience with the actual person being ‘investigated’. Interviews, therefore, encourage and allow respondents to view their behaviour with their logic. Which gives the interviewer (the researcher) the ability to adapt the interview as it occurs.

To gain access to the farmers' thoughts and prompt a reflection on their involvement and engagement with the initiative and the cooperative, it was essential to allow each farmer to speak and point out any key events or ideas that were specifically of value to them. The interviews sought to draw on what this means going forward in the future of farming more sustainably and for the farmers to consider this based on their experiences to date.

The group of 8 farmers were all interviewed individually between the period of February and April 2021. While it had been envisaged the interviews could take place in person and on the farms of the farmers interviewed, unfortunately, this was not possible with the ongoing pandemic. The interviews, therefore, took place 'virtually' through video calls. It had been reiterated by the contacts at TINE that the farmers had become quite familiar with this platform of communicating with the cooperative in recent times and connecting with other industry events.

With the interviews being semi-structured, an emphasis was placed on keeping the interview more like a conversation than a typical 'interview'. However, to maintain consistency in the method across all farmers, an interview guide was prepared, which can be found in the appendix. This acted as a guide for the interviews, with a comprehensive list of possible questions to include in the interviews. These were based on topics covering an introduction of the farmer, their background and motivations, thoughts on the future of farming, their relationship with TINE, experiences with the animal welfare initiative and eventually consideration on their future engagement with initiatives based on improving on-farm sustainability. The topics and questions were ordered to encourage a holistic story to be developed by the farmers, but also so that there was logic in the conversation without tricking or confusing them. While some farmers requested to see this interview guide before the interviews commencing, the researcher tried to avoid sharing this with them, to try and have them focus on the interview in its entirety and treat it more like a casual conversation

With the open and semi-structured nature of the investigation, it seemed to make more sense to let the farmers answer the questions in an unconstrained way, thereby encouraging them to mention anything and everything that came into their minds. As it turned out, many of the farmers brought up other ideas in addition to a response to questions asked to them, with many of these different ideas being relevant answers to later questions. Which meant responses and answers to questions

were sometimes applicable in answering several questions, which helped reinforce what had been said to ensure a genuine reply was given. Though, this was not an issue as the interview guide, after all, was intended to be a supporting tool, not a strict interview guide (Patton 2002).

3.4 DATA ANALYSIS METHODOLOGY

With the series of interviews complete (or even partially complete, as interviewing and processing of the interviews took place over several months), this triggered the investigation to move into the next phase, which was to analyse the interview data. While the process of succinctly taking raw data from interviews into something cohesive and ready for discussion can be considered relatively straightforward, attempts should be made to avoid an “‘anything goes’-standpoint which is not satisfying” (Mayring, 2000, p. 10). Which suggested a proper process and well thought out plan of funnelling the data was used. However, given the initial approach of the thesis was to prompt an exploratory investigation by way of using qualitative methods, to a certain extent, the direction for the data analysis process for analysing the data had already been understood. With the objectives of the investigation seeking to connect experiences with relevancy from interview data, themes and sub-themes could be identified, which could be discussed and explored as ideas that qualify stakeholder engagement to be potentially relevant for the farming members. The word *potentially* is used here, as while themes and sub-themes were identified in the process, their relevancy was not necessarily apparent until they were discussed later.

Earlier, when the overview of the farmers was provided in a table back in part 2, only basic information was included in the table, this was partly to show the basic overview of farmers in the case group, but also because other distinguishing factors were not necessarily valid ‘on their own’. These finer details were included in the results and discussion section where necessary. With this in mind, we can start to understand why different people say and do different things” (Taylor, n.d., p. 13).

Silverman (2006) recognised the hurdle of deciding how best to make use of qualitative data – something distinctly different from that of quantitative data, where “there are readily available statistical tests which you can apply to see what your numbers ‘mean’” (Silverman, 2006, p. 114). While qualitative data is what it is, it is up to the researcher to decide how they want to ‘use’ parts

or all of it to tell a story. Silverman also established some simple rules to proceed with the task of analysing the data, three of which were particularly helpful:

Rule #3: **“Avoid devising the hypothesis too early into the process – seek to see where your analysis is leading in order to establish a hypothesis”**: while it would be easy to assume that because stakeholder engagement has been a relevant factor for farming members of agricultural cooperatives in the past, does not necessitate its continued relevance today, particularly given the circumstances and challenges are different. So, while evidence could confirm its historical significance, today's case considers a broader range of topics that needed to be explored first before ‘confirming’ it.

Rule #4: **“Do not look for telling examples but analyse your data thoroughly and fairly”**: it can be easy to take strong descriptions as a clear winner. Yet all of the interview data could be relevant and applicable in explaining and justifying the relevancy. It pays to look for repeated comments and points raised from various people to ensure outliers are not perceived as the main case. This reinforces why it is also essential to consider the broader circumstances that suggest why someone has answered the way they did and what prior experiences (which may not have even been captured in the interview) could have influenced statements made.

Rule #6: **“Try to focus on sequences (of talk, written material or interaction)”**: the context of a statement can be challenging to understand when you’re only basing your discussion on the words found within the quotation marks. Given that the interviews took place more like a conversation, where the farmers could tell ‘their story’, it was common to find several phrases within a response that were interesting. So rather than just using one ‘example’ from a reply, sometimes the further elaborations that were given can be more defining and specify what the farmer truly meant and what they did not.

3.41 TRANSCRIPTION

The transcription phase of the investigation allowed the researcher to first and foremost turn the audio recordings of the interviews into a scripted text. As the interviews were recorded on a recording device, the researcher quickly made audio files available. For efficiency, the researcher decided to utilise Otter, an audio transcribing software that generates text files based on the audio recordings. However, once the text files had been created in Otter, the researcher made a conscious effort to go back over the audio recordings with these text files manually to ensure that they had been transcribed correctly, as sometimes there were errors in the text. But also to make any comments, such as when the farmer used particular emotion or expression in their response. After all, it was acknowledged that once the audio files had been converted into text files, the original audio files would render themselves surplus to proceeding towards the next step of data analysis.

3.42 THEMATIC ANALYSIS

The process of interpreting the interview data “acts as an intermediary between meanings or predispositions to act in a certain way and the action itself (Taylor et al., 2015, p. 13). At times, it was easy to consider the transcript two-dimensionally and forget about who said it on one end with the risk of losing the context of its basis from an individual farmer to the other end of its overall relevance in answering the investigation’s questions.

It was possible to identify an array of underlying sub-themes for each theme, which could then be analysed deeper, with further refinement in the categorising, by reading more profound into the information and statements from the interviews. While the development (and confirmation of existing themes) was relatively straightforward, the development of sub-themes required a deeper level of processing. Which, in the case of interview text data, it was a case of reading between the lines and putting yourself in the farmer’s shoes to depict what they meant accurately.

Again, the researcher made use of software to help streamline the process of theme and sub-theme development. ATLAS.ti is a computer program used for analysing large amounts of data – which in this investigation’s case, was text data derived from the audio recordings. A text file from each of the interviews were uploaded into one project, which in a sense was the first time throughout the investigation when the case group’s data was being collated together.

As mentioned, themes taken from the interview guide were initially added to the project as potential themes to associate audio text with. Then from here, each text file was read through, with phrases, sentences and sequences as said by the farmers were associated with a theme (or several, which tended to be the case predominantly). Upon completing this, it was possible to see all phrases, sentences and sequences associated with a specific theme. Plus, there was the opportunity to see how many times a theme had been associated with (as can be partially seen in the image below).

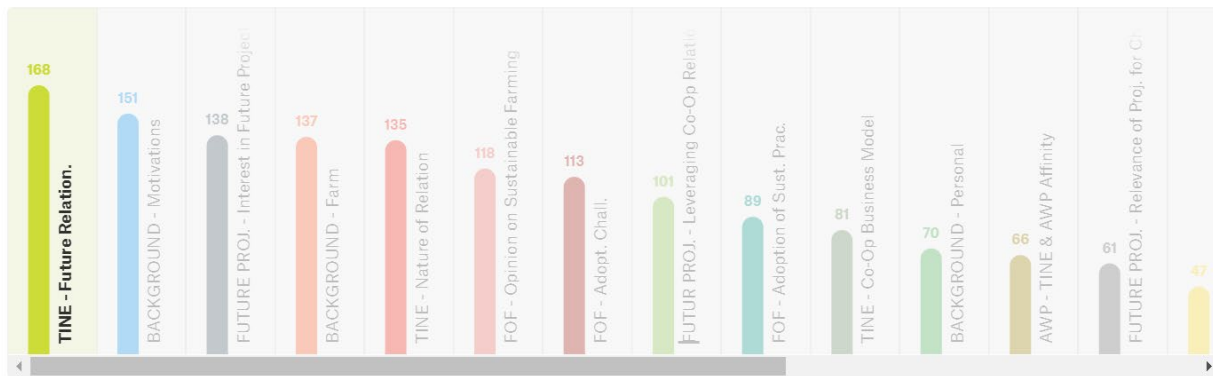


FIGURE 2 ATLAS.TI REPORTING ON THEMES

It was fascinating to see that “TINE - Future Relations” had the highest count, followed by “BACKGROUND – Motivations”, which began to indicate the investigation’s direction. At the same time, the lowest number of associations came from the theme “AWP – Joining”, with AWP standing for animal welfare project. In contrast to the 168 associations that “TINE – Future Relations” experienced, “AWP – Joining” had a count of 10. Of course, quantity is not everything, but a picture began to be built upon what was first interesting for the farmers to talk about, and how this contributes to the bigger picture of the relevance of stakeholder engagement and how it can be a relevant factor for the future ahead.

It was then decided that Excel could actually be more suitable to use to process the themes even further, especially given the researcher was not so familiar with ATLAS.ti. The phrases, sentences and sequences and their associated themes were exported from ATLAS.ti and inserted into Excel. The researcher then moved through each individually to make comments and ultimately identify

sub-themes – or more ‘accurate’ themes based on the feelings around the nature of the text and what it was ‘telling’. Upon all phrases, sentences and sequences being read through, this now allowed the researcher to comprehend what had been noted from the text, the development of sub-themes, and also the comments that had been raised in response.

Since this investigation was connected with several already known and well-understood concepts, it was decided that these could be used as ‘markers’ to guide the interview guide. This meant that the data (farmer responses) was already somewhat ‘earmarked’ towards these pre-established themes. However, as indicated earlier, there were also times throughout the interviews where the farmers would provide information in some of the answers relevant to other questions asked to them later in the interview. At times, transcribes were matched to several themes, which was reasonable, yet given they meant different things to different themes; this was commented on to avoid any confusion when the themes were further processed into sub-themes and, of course, eventually discussed. Additionally, while a range of themes was developed based on the knowledge from pre-existing concepts, these did not always remain at the hierarchical level of themes. But it was also the case that sometimes ‘themes’, which had initially been classed as a theme such as to “Background”, was then later moved to the sub-theme hierarchy. Bearing in mind that it was only upon drilling down deeper into the transcribes that it was realised the classification of ‘themes’ could be dynamic.

While the researcher had the experience of speaking with each of the farmers in the case group, they were the only ones who had and will have those experiences; it is essential to consider then what you choose to tell and share about those interviews. While the amount of valuable content could vary between interviews, part of being able to discuss effectively is to have sound examples which can provide a fair reflection of what the interviews entailed. With the funnelling and narrowing down of the data in the interpretation phase, where “the relevance of sequence to action” gives rise to “to how the former shaped the latter” (Silverman, 2006, p. 63)

3.5 ETHICAL CONSIDERATIONS

This investigation explores a social phenomenon based on reflections and experiences from farmers as members of an agricultural cooperative. Through their involvement and engagement

with an initiative run by the cooperative, With the initiative having already taken place, the reflections and experiences described were based on stimulating thought on various topics, with data collected as audio recordings from interviews held. All stakeholders of the investigation were briefed on the objectives of the investigation and what had been planned before asking for their interest in participating and agreeing on their involvement, which could generate relevant data to build an investigation and thesis on.

The basis of the interviews, while probing and exploratory, was primarily based on reflective questions. The questions were designed to be non-confrontational or demeaning to the farmers. They were, however, trying to invoke a deeper level of reflections, which they may not have been familiar with. During the interviews and throughout the investigation, the farmers were kept informed, updated on progress, and given full opportunity to remove themselves from the research along with any data relating to them.

Given audio data was collected from the interviews held throughout the investigation, personal data was therefore collected. As with the audio files contained personal identifying attributes – with both the individual’s voice and information about them, there was the potential for this data to be used incorrectly. However, as had been agreed with the farmers, all data was treated respectfully and not shared with anyone outside of the investigation. The farmers were aware that quotes taken from the interviews could be used and referred to in this thesis document. The opportunity was also given throughout the process whether the farmers wish to provide further feedback or clarify what they had already contributed or if they felt their contributions might be unrepresentative of their views.

An application had been made by the researcher to NSD – the Norwegian centre for research data, outlining the investigation, which was approved. In this, the researcher reiterated that audio files from the interviews taken would be securely stored on NMBU’s server, with the possibility to encrypt names and other personal details from the interview data. Upon completing the investigation, and submitting the thesis, it was agreed that all data would be erased.

3.6 QUALITY CONTROL

3.61 INTRODUCTION

With the primary data source for this investigation taken as audio recordings from interviews held online, the raw data went through several layers of processing before being analysed, discussed, and eventually drawn from conclusions. Like the game of Chinese Whispers, while unintentional, data can very quickly be misinterpreted, and therefore likely to be misused. This section will elaborate on how reliability and validity were considered throughout the investigation and tactics were developed to reduce and overcome challenges.

3.62 RELIABILITY

With the researcher's mother tongue being English with basic Norwegian skills, language may have been a barrier or challenge for the investigation considering it was taking place in Norway and seeking to interview Norwegian farmers. The first challenge this created was finding farmers who would be interested in joining the case group. As was mentioned previously, it was hoped that the farmers would all live and farm in one region in Norway. However, it was a challenge to find enough interested farmers. Further, in the interviews, the farmers mentioned that they struggled to answer the question and would have managed it if they answered in Norwegian. These points could impact the reliability of this investigation; however, it was determined this could be overcome, first and foremost, by being patient with the farmers and encouraging them to answer as they liked.

It was a struggle at one point in the investigation to find enough farmers for the investigation. While the sample size is not everything, the researcher understood its influence in dictating the reliability of the data. Once it was known that the group of farmers came from five of the 11 regions of Norway, it was determined the investigation could be somewhat representative of all farmers in Norway. While it would be expected that every single farming member would have relevant points to the inquiry to consider, there is also an awareness that not everyone will choose to participate and express themselves. Therefore, priority was also put on ensuring the farmers within the group could 'reflect' and were open to the idea of speaking about their personal experiences.

While the investigation took place from the farmers' perspective, using them as the primary data, time was also spent in gaining perspectives from others. Including TINE, other agricultural

cooperatives in Norway, and other countries, other actors in the Norwegian agricultural industry who had involvement in sustainable initiatives or projects, and the researcher's parents who could provide insight given their relations with agricultural cooperatives in New Zealand. Including these broader perspectives alongside the farmers within the case group helped further the context and ensured that what was being developed was not just a wish list for the farmers. But that data was the rationale in the overall scheme of things.

Whatever method is applied, it is impossible to capture everything relevant in telling the story. However, it was determined that interviews would provide the best opportunity for individual expression and direction in the answers. Further, the interviews and the data collected were treated holistically, giving the investigation context but not expecting them to be exhaustive. Part of the researcher's approach was to allow the direction of the investigation and the interviews to be dynamic, thereby encouraging the inclusion of ideas and concepts that perhaps had not been considered by the researcher.

Just as any other method type, interviews have their limitations. According to Pole and Lampard (2002), interviews are socially constructed and constrained by the particular interview situation. They can be artificial and therefore cannot be expected to “uncover the truth or the essence of individual belief, experience or opinion” (Pole and Lampard 2002:127). The realisation came that interviews do not provide immediate answers; of course, answers can be gained as responses. But the actual value in exploring the answers can occur after the interview itself, by piecing the answers afterwards while analysing and discussing.

The ability to accurately reflect on experiences so that the data derived from speaking about them is reliable is debatable. However, it was a priority for the researcher when selecting an initiative. It had taken place recently to try and make it easier for the farmers to consider most accurately. However, in the context of the animal welfare initiative, as we are aware, this has been and will likely continue to be an ongoing topic of discussion. Therefore, it is impossible to state its actual ‘start’ and ‘stop’ points.

Further, the topic of animal welfare is not exclusive to TINE. Several farmers in the group mentioning other cooperatives, such as Nortura (a national meat cooperative in Norway), who had recently had an animal welfare initiative also, as well as outside of Norway. It was necessary then

to consider that the farmers' experiences and perceptions on animal welfare are influenced by an array of actors who all can impact how the topic is internalised and given meaning.

Further, stakeholder engagement is also a factor that is not exclusive to cooperatives. Neither is it the only factor contributing to the success of initiatives, and initiatives are not the only way to aid the shift towards more sustainable on-farm operations. These non-exclusive aspects which helped shaped the research question should be considered upon how the findings and the conclusions are addressed in other contexts. Yet, it was hoped that there could be relevant findings for the industry at large by doing this investigation. Particularly given the array of actors and actor networks that can be found throughout the agricultural industry. Therefore, context integrity was prioritised throughout the investigation to help ensure findings could be referenced and referred back to.

3.63 VALIDITY

With stakeholder engagement being a social aspect, it is dynamic and therefore never likely to remain stable, making it a challenge to comprehend it at a specific point in time and the significance of this overall. Further, it is known that individuals and organisations alike “tend to forget or hide most of the complexity and controversy involved” upon reflecting on past events (Hoholm and Araujo, 2011, p. 11). So, it was hoped that prompting the farmers to reflect on experiences and thoughts beyond the initiative would help contextualise the relevance of stakeholder engagement during a specific moment (while part of the initiative) and a broader application.

Across the case group of farming members, many shared experiences or thoughts were expressed. However, there were, of course, deviations from the consensus at times, at it varied who in the group this was based on the nature of the question or conversation at the time. It was important to consider everything articulated and presented by the group holistically and not discount ‘random’ or slightly different answers. What was great about the interviewing method was that the researcher could probe further when something ‘different’ was mentioned and truly understand where the farmer was coming from.

As the interviews took place individually over a series of weeks, this allowed for a reflection about the actual process to try and improve the following. At the same time, the researcher valued consistency in questions being asked and the order of topics in the interviews. There was still the opportunity for improvement in aspects surrounding the actual interview. This included factors such as building a stronger rapport with the farmer before the interview started or taking longer pauses after sentences to encourage additional details to be expressed by the farmer rather than missed. These sorts of ‘improvements’ cannot necessarily be achieved when applying a one-off method such as a questionnaire, which was a welcomed opportunity for a beginner researcher.

Many individuals could comment on the potential relevance of stakeholder engagement, yet this specific investigation seeks to isolate this to a particular group of actors. It was their specific way of perceiving and reflecting that was of significance. Others could point out what might be enjoyable or what ‘should be’ relevant for another group of actors, even TINE the cooperative themselves. However, with the basis of the investigation trying to pinpoint it to the farmers, it was most applicable to have them as the primary data source.

4 Results & Discussion

4.1 INTRODUCTION & REINTRODUCE RQS

As we are aware, the agricultural industry (and like many others) is at crossroads, whereby a wicked problem has developed on the topic of sustainability. Which in recent years, has now moved from a topic of declaration to actually something required in practice (Newig et al., 2013, p. vii). Yet with the problem having compounded in size with its hard to define issues, hard to understand challenges, multiple perspectives throughout, this has created a problem with “no clear optimal solution”, and no easy feat in overcoming (Darteh et al., 2019, p. 8). Yet as any optimist today would comment on – there is hope, but it will require the “availability of knowledge about different types of research and reflection” (Grunwald, 2007, p. 247) to truly connect with the opportunities that exist, even if they sit in obscure settings.

With growing insight into the potential relevancy and contribution that social factors can bring to overcoming the challenges of sustainability, this created a unique arena for an investigation to take place, taking a specific social factor into focus.

Based on prior examples in the literature, it was clear that the relationship between agricultural cooperatives and their farming members has historically held a level of significance in the agricultural industry. With specific reference to the social factor of

stakeholder engagement, this too had been identified as a relevant factor in overcoming the challenges of sustainability through the mechanism of initiatives. Leading this investigation then to specifically focus on how the factor of stakeholder engagement can be relevant for farming members of agricultural cooperatives, in overcoming the challenges of sustainable initiatives, which has the capacity to aid the required sustainable shift.

This part of the thesis has the intention of sharing the results of the investigation, but also to trigger a discussion of the findings and consider their relevance in the overall scheme of stakeholder engagement's relevance. While a single, overall research question was developed, it was hoped this could stretch the investigation both retrospectively and into the future. To thereby create an investigation that did not simply look at prior events, but also saw to connect this with the future. Which led to the development of two 'research questions', to ensure focus was given to each phase throughout and that the investigation took a holistic viewpoint in gauging relevance for the farming members.

The intent of RQ1 was to build background context to the investigation on the basis of the farmers' prior experiences and ideas. Thereby seeking to explore the topics from the farming members perspectives such as their motivations in farming, engagement with the cooperative TINE, their alignment with the animal welfare initiatives, as well as on-farm innovation and change.



While the intent of RQ2 was to help provide an indication of the farmers' contributions and suitable alignment in aiding the sustainable change, how they identified value in the shared relationship going forward, and also to comment on the challenges they hope to overcome in their relationship with the cooperative.

While both research questions contributed to building the case for the overall research question, the results have been merged to encourage a more coherent discussion, but also due to their direct connection to the research's overall question. Bearing in mind that the investigation's overall question seeks to consider how stakeholder engagement could be a relevant factor in aiding the sustainability shift, ultimately this is a question of how the factor of stakeholder engagement can be relevant in overcoming the challenges faced by the farmers. Which encouraged the initial results to be considered on their relevance in strengthening stakeholder engagement, but also where they contributed to the challenge. Eventually, this will lead to a final section of this part, which will wrap up the overall results and discussion to 'answer' the overall research question.

With the challenge of sustainability ultimately the problem this thesis intends to aid, and a concept which is known to have varying interpretations; it seems worthwhile to begin by providing a brief overview of some statements from the farmers in response to being asked about what sustainability meant to them.

“So, maybe it's changed a little bit (sustainability). But then again, I see on social media some frightening ideas about this, like not eating meat to save the climate, and so on” (Ingebjørg Grindhaug, 2021)

“It's no problem to convince me about sustainable development and how I manage my farm to be sustainable, because I know the idea that everything fits in... You have to make it clear when

something is wrong, and when something is okay - it's probably difficult to make these rules” (Gunnar Alstad, 2021).

"It takes a lot of thinking and a lot of work to try to find good solutions" (Jorunn Gunnerød, 2021).

“The way you're running the soil and the whole system, so we don't damage the environment... The closest neighbour is always buying new tractors, but we have a tractor that's probably 15 years old. I just tell him the next new tractor we are buying will probably be an electric tractor” (Stian Nylend, 2021).

“We have to do something, but I don't know what to do yet...Every farmer is experimenting a little bit in their own area” (Birgit Wasrud, 2021).

“That's a difficult question. I think that agriculture has always been developing and following the steps, naturally, because it has to. Sustainability is nothing new, but perhaps it's bigger – it's been blown up a lot” (Maren Sveipe, 2021).

“I can manage with the older tractor, as I would rather have a robot (milking robot). But that's also a personal decision” (Leiv Tore Haugen, 2021)

“People are now realising this is not only a matter of healthy products, special interest or environmental questions - this is common sense” (Hans Kristian Teien, 2021)

The array of responses demonstrates the broad ways in which sustainability has been internalised for the farmers. With some responses indicating the need to quite simply get on with it – “this is common sense” (Hans Kristian Teien, 2021), while others were quite honest in their inability to actually grasp it – “I don’t know what to do yet” (Birgit Wasrud, 2021). However, regardless of how these statements are comprehended, there is no simple answer for sustainability, and while society may be open to recognising sustainability’s importance, for farmers, it is clearly a dynamic priority that they are largely still learning to understand.

4.2 UNCERTAINTY & CHANGING STANDARDS

The concept of farming, for farmers specifically, is something done for the long-term, where it takes patience and ongoing dedication to reap the rewards. Yet, with sustainability’s mandate being strongly put forward to the industry and with urgency, it has been a challenge for farmers to internalise and process.

“I think that with some things, I’ve just stopped thinking about them because there’s no way I can do it... I don't bother my head thinking about things I can't change anyway. But of course, with some things, you just can't stop thinking about” (Birgit Wasrud, 2021).

With the initial quotes listed earlier in this part highlighting the array of interpretations of sustainability for farmers; it was clear that while the farmers could understand the bigger contribution it was aiming for, they struggled to cohesively describe it. Yet, given sustainability is likely to be an ongoing topic in the years to come, it will be important particularly when applied in a group setting, that there is a clear view over the framework in context.

In many instances also, change can be linked back to a reframing of the problem at hand – what was once not a problem, can soon be perceived quite differently when other ideas surrounding it change (Darteh et al., 2019, p. 8). Thereby reinforcing the value of connecting issues to their bigger contribution to prompt a perspective of incremental change.

Further, upon addressing or considering problems, sometimes frustration was felt by the farmers, when it seemed the priority of rules around animal welfare were considered. Which was particularly the case with the animal welfare indicator. Which reiterate the idea that when

developing a solution suitable for everyone, it can be difficult to satisfy and meet every option available. Thereby suggesting that there are limitations in any how integrated and truly submersed an actor can get with another actor in the challenge of solving problems together.

“I solved one problem, and I got a new one” (Gunnar Alstad, 2021).

“Not so many years ago most cows were tied up, and they were just standing on concrete. But then the law came in saying you needed a mattress for them to lie down on and there was a lot of protest around this, as farmers thought it was not necessary and thought the cows were quite healthy lying down on the concrete. But now every farmer sees that it’s an advantage to have a mattress for them to lie down on” (Hans Kristian Teien, 2021)

Upon considering who the farmers were engaging with from TINE on the topics of animal welfare, this usually came from local advisors. It has been a priority for TINE to have these staff with specialised backgrounds to ensure relevant value is available for the farmers. At time though, there were doubts as to the information they could offer in addition to what the farmers already knew.

“I will probably be very grateful that TINE is existing and that they have their people to help me, because I have no idea” (Birgit Wasrud, 2021).

Despite the topic of animal welfare not being specific to TINE, it was evident that given TINE is in the industry with dairy cows, it was of value for the farmers to have a close relationship with someone who could comprehend this, but also to reiterate the value and importance of the topic in a pragmatic manner.

While it is common to find farmers investing in technology that can help aid their operations on farms, it still comes at a cost for them and therefore can be challenge for them to simply justify. Being a cost in monetary terms due to the expenditure required to purchase the new technology, but also a cost in time to try and understand how the technology operates, but how it can be integrated into their existing systems.

“But maybe something else will come in the future, and I will have to buy that” (Birgit Wasrud, 2021).

4.3 FREEDOM IS IMPORTANT FOR FARMERS

With many farmers enjoying the freedom that has come with the profession of farming, it gives them a sense of autonomy and confidence to take ownership of their role in the greater system. Farming is a lifestyle, a job that never stops, and yet with farmer's contributing one of humanity's basic needs – food, they certainly have a responsibility.

“I like to work with pigs, but it's too much work with little money - there's a high pressure on the pig farmers and especially about animal welfare” (Jorunn Gunnerød, 2021).

How this responsibility fits into farmer's own individual agenda in life then, is perhaps becoming an increasingly blurred line. Particularly with farming taking on a deeper level of involvement with people's lives, comments such as “I wanted to be both a farmer and be there for my family” (Maren Sveipe, 2021), reminds us that everyone's individual circumstances will have some influence on how aligned they choose to follow and take on everything.

While this is subjective and should be considered case by case, it also reiterates that everyone has boundaries, and regardless of how strong the encouragement is to doing something one way or another, acknowledgement needs to be made upon how everyone will perceive its importance for them personally (Nicolăescu et al., 2015, p. 5).

“I think maybe we trust what we're doing, we have confidence, and we have experience” (Ingebjørg Grindhaug, 2021)

The mandate for achieving the sustainable shift has been identified as putting a greater level of control on the way farmers operate, which in turn has influenced the way they perceive their freedom and flexibility in their lives on the farm. It is becoming clearer the responsibility of being a farmer is changing, and while the specifics can vary across individual farms, for some farmers the requirements are altering the ‘game’ of farming into something they had never expected.

"Everything is so hard now because there are so many rules - there weren't that many rules before... TINE is making a lot of requirements, or else I won't earn that much money" (Birgit Wasrud, 2021).

With the increasing requirements placed on farmers to adhere by, in many ways it is changing the true nature of what it means to be a farmer – where “it's not only about driving a tractor and taking

care of the cows" (Jorunn Gunnerød, 2021). Around the world, the idea of this can vary significantly, especially given what farmers have grown to be used to in their local industry. However, this prompts the thought, that stakeholders which are in close proximity to one another, offers a sharper line to engage on. One in which the truth, or more matter-of-fact points can be delivered on.

“Farming is like playing for a child. When you're doing work that makes you happy, you like to keep playing” (Leiv Tore Haugen, 2021).

The sustainability conversation, whether it be on the current situation, goals, framework, and ideals are continually changing and updating. This therefore demands and requires farmers to constantly 'keep up to speed' with the current situation, which may also mean continual shifts in their way of addressing the problem and meeting the standards.

“It's important to look after every cow, but you have to understand, I'm not a romantic about this... When TINE wants us to go and do things which is good for animal welfare, we can solve one or two problems, but you might not solve all the problems. So how to convince everybody that you do this for the cooperative - it's difficult" (Gunnar Alstad, 2021).

TINE as a company can come out with ideas and suggestions, but it doesn't guarantee that all the farmers will follow suit. The reality is that each of the farmers has a day job of their own, with their own preferences, and therefore cannot be expected to always pursue the work of the cooperative. Which is typically why “networks that rely purely on voluntarism often fail” (Darteh et al., 2019, p. 20).

“I must earn money, but it must be interesting” (Leiv Tore Haugen, 2021).

In consideration of how this theme was felt in comprehended by the farmers engaging with the animal welfare initiative (or even anything to do with TINE), it was evident that at times the farmers were not as interested to engage in the activities. This could be for a variety of reasons, but there will be a question of how to balance this – to encourage and seek out the farmers, but also to ensure that they actually understand it, and can decide for themselves that it is something for them.

4.4 THE NATURE OF RELATIONSHIPS IS CHANGING

TINE cannot limit the information/resources/guidance that their farming members can get from others in the system. They therefore have to acknowledge/work with the system available, but also consider how the overall 'voice' gained from listening/being in amongst the system could be influencing and shaping the farmers willingness to connect/engage with them, on one of their specific initiatives. It is also important for TINE and others to also consider then what they 'represent' or contribute. How the balance of this can be positive for some farmers, overwhelming for others, and insufficient for some.

The broader network in the industry should be understood, with each of the specific types of relationships that the farmers have, but also to appreciate the informal relations – given they are typically being often more important than formal ones (Petter Stræte, 2006, p. 1430). "Maybe one farmer speaks to one organisation, and another speaks to another - because we know different people" (Birgit Wasrud, 2021). Which could also highlight different levels of engagement that takes place by farmers across sectors, and not to assume that this will be consistent - "It has not been the same way for pig farmers, they're more their own person and they don't have much contact with other people" (Birgit Wasrud, 2021).

How close are the farmers willing to get with TINE – are they actively seeking to connect with the cooperative on every point? The level of closeness that relationships are able to build can help to explain the ongoing strength of relationships. How this is managed over the lifespan of farmers supplying (or cooperating) with the company should also be of significance – to see that the relationship can be adaptive given the variances and changing motives that we all can go through.

While farming members of TINE are perhaps likely to have more in common with one another than all farmers as part of a more general group, this does not mean that all farmers are the same, have the same motivations, or require the same level of service in order to achieve the 'initiative'. It is therefore imperative that the cooperative works through the scenario with the farmers, in order to develop initiatives into ones that can be articulated and be internalised by the farmers (Medlin, 2002, p. 8).

“It’s no problem if you want to go up in TINE, it's possible (e.g. On the board), but I have chosen to do something else. I'm spending a lot of all my free time doing organizational work, politics and stuff. So I haven't gone the TINE way, because I'm busy with something else” (Gunnar Alstad, 2021).

Humans will always be the glue that binds an agenda together. So, while TINE can come up with a grand initiative, and have all the resources there ready to go, a key point to consider is “while it is firms that conduct relationship activities, it is the human actors who synchronize all” (Medlin, 2002, p. 2).

Farmers understand that there are a lot of comings and goings in the agricultural industry, so to get 'excited' or to simply engage with something beyond the typical, there needs to be sufficient merit and understanding about why 'suddenly' this topic deserves a stronger focus. As mentioned previously, given the agricultural industry cannot have sustainability just be seen as another fad that only a select few get on board with, this requires insight into some of the finer intricacies that are within the industry, to understand if we can reinforce them, and thereby leverage on them to the point of significant gain.

“It's not easy to sit on a board any longer, even if it's local or, more regional or national. So, I think a challenge in the future will be to find people who are willing to take these jobs” (Gunnar Alstad, 2021)

The reality is that each of the farmers has a day job of their own, with their own preferences, and therefore cannot be expected to always pursue the work of the cooperative. Which is typically why “networks that rely purely on voluntarism often fail” (Darteh et al., 2019, p. 20).

4.5 HOW FARMERS IDENTIFY

It is understood that there is a spectrum of farmer types, each with their own attributes and ways of handling things. Something to consider though, it that this categorising of farmers “often do not fully capture the various ways farmers can engage with advice and information” (Klerkx et al., 2017, p. 215). While at present this may not be such an issue for TINE, in that the farmers supplying them are a relatively homogenous mixture. But, in consideration of the industry’s direction, it

could be a changing need for TINE to consider in how they address and recognise each of their farmers.

"I have been pretty clear that if I'm going to be a farmer, I need to try to and make the job more normal" (Maren Sveipe, 2021).

“For some communities of practice we may be a core member, whereas for others we may sit on the periphery” (Oreszczyn et al., 2010, p. 2), and just like was encountered with the farmers, we cannot expect them to raise their hand at every opportunity. Particularly given they are often associated with other organisations within the industry too – so it can be a difficult task to take on a leadership role or even ‘engage’ more in depth.

“The sense of identity people gain from belonging to a community or network of practice is important as this is a key factor in a person’s decisions about who to associate with and how to deal with boundaries” (Oreszczyn et al., 2010, p. 3).

“One of the finest things with the Vega, is that we all know each other pretty well too, so it works” (Ingebjørg Grindhaug, 2021).

Typically, agricultural research and policy does not take into account the unique portfolio of experiences and knowledge that the industry can collectively draw on to take an approach to a problem in an ‘already-trialled’ methods (Oreszczyn et al., 2010, p. 10,11). As with many of the farmers interviewed, there was a strong sense of understanding their specific farm. This could link on to the fact that often (particularly in Norway where it is still very much a tradition today), many of the farms had been within the family for generations. Which encourages knowledge and insight of the land to be shared. How this cultivation of ideas, thinking about it, and being proactive about it on the farm, is an attribute that also lends itself well to engaging with an initiative that requires a more thought-out approach.

“I grew up in a cooperative family, my father delivered to the cooperative and my grandfather and even for my great grandfather” (Stian Nylend, 2021)

Farmers are facing high pressure to revolutionise their operations. A point often made is that farmers aren't necessarily in a position to comprehend or understand how to make these changes.

Yet, with many farmers having often perceived themselves as farmers from a very young age, this direction and passion that has followed through with them, to where they are should be considered a strength and a force that would likely take future farming concepts through to completion.

“For me, it's no problem to discuss this, make changes or talk about it all these things. The main thing is that the farmers are thinking about it, or seeing that they have an issue here about animal welfare or sustainable production - that they see it, and that's the first step before we start” (Gunnar Alstad, 2021)

To be successful in drawing farmers in to the initiative, it was important for TINE to establish it as being adaptive for the farmers, where it was not forced upon the farmers to attend, but almost one that could advertise itself, and thereby encourage the farmers to see the relevance of it themselves (Darteh et al., 2019, p. 8).

4.6 EMPOWERMENT TO THE FARMERS

The format of introducing and engaging with the farming members on the initiative varied depending on the farmer's involvement with TINE. This meant that the initiative was not simply just pushed out from TINE, but in fact an opportunity was given to the farming members (who were typically taking meetings in groups with other farming members from the local area) to internalise it, process it, and decide how they wanted to ultimately approach it. From there it was a dual stage process, with TINE offering the farmers the chance to regularly meet with one another, but also with information being shared from TINE. In this approach, it meant that new ideas were generated and/or opportunities identified. With TINE providing “the seeds and fertiliser for new ideas to grow, and then to harvest, filter and store these ideas for further development into workable concepts” (du Preez and Louw, 2008, p. 9)

“It's a good thing that TINE makes something out of it because it makes people think more for themselves” – (Hans Kristian Teien, 2021).

On their own, farmers stand as individuals, yet when they have supportive backbone on the basis of shared goals, such as that witnessed in TINE with their farming members, it helped give a sense of empowerment to the farmers.

Actors may not be in a natural position (or even willing) to contribute to system innovation. But other times it is due to not knowing that they (actors) are even in a position (due to the way they operate) that they are also in a position of strength to aid system innovation. Yes, they might be successful in their enterprise level operations, but how does this connect with the needs of the system?

“I think that TINE’s role has to be to lift us farmers, up as well...They need to keep on having us on the team” (Maren Sveipe, 2021).

Further, by maintaining the breadth of voice throughout the country, it helps to reinforce the power relations. Farmers can feel like this is their industry, and that their opinions continue to reach the level of those who are ultimately deciding the direction of the industry.

“It's very important for those who deliver to TINE also to have a feeling and know there's someone there to help if there is a problem. I think we should use some of our extra money to be sure that we have a good system, so if something happens, if it's animal, or people are quality then TINE is there to help and take care of the person and to follow the milk” (Jorunn Gunnerød, 2021)

“It's one of the biggest issues of agriculture in the future in Norway - that we stay together in the cooperative, and that we teach the new farmers into this cooperative system.” - Gunnar

TINE should not forget the bigger 'role' they play in the lives of their farming members. While their position can appear somewhat minor for some farmers, it is still a relationship that the farmers share. Given the spread of individuals right throughout the country, farming in Norway historically has roots that has seen small scale farming taking place right throughout the country.

“Realisation is the first step, of course, and, for some farmers, it will be the biggest step, and then to implement it can be a long time. I mean, you have to be honest to know that there are farmers in my area now, who should not have been milking cows, but TINE has to take their milk, and the problem there is that the quality of the milk isn't always perfect, but TINE's picking up” (Gunnar Alstad, 2021).

What started out as small cooperatives throughout the regions, over time, these were progressively purchased to collectively build bigger networks of farmers. Today we can see that despite TINE

now being the large conglomerate of all these once sparsely spread cooperatives, many of the farmers' wishes remain of keeping strength in the local farmer networks.

“Everywhere I go - to meetings and everything, I preach to them that I cooperate with a neighbour and this makes it easier” (Hans Kristian Teien, 2021)

4.7 SHARED RESPONSIBILITY HELPS ENSURE COHESION

While there was a general acceptance that challenges taken on by collective action can be tiresome, the overall gain is beneficial for all involved in the long term. Yet to achieve best-fit for all can be challenging given “the heterogeneity of farming and farmers and farmers’ abilities to identify the most appropriate services for them” (Klerkx et al., 2017, p. 214).

"You can't go in there and say “hey, stop farming”, instead we need people who can come in and help them - “ok, let's start to sell some bulls, start to sell some cows, reduce the numbers...” (Gunnar Alstad, 2021)

With this statement, connecting with the advisors who ultimately help connect, these sorts of activities surrounding on-farm sustainability from TINE in conjunction with the farmers. When the advisory approach goes in tandem with the farmers, by meeting “farmers’ different needs and connect to different farming styles and goals” (Klerkx et al., 2017, p. 214), a greater interpretation of the task at hand and can be considered. Plus when the responsibility for solving the problem is managed together, this is likely to trigger a great adherence and overall change management success (Darteh et al., 2019, p. 20).

“Because 10, 15 years ago, you shouldn't try to help, you shouldn't bother. But in these groups, we were talking so much about that if something happened, we have to try to help and be there” (Ingebjørg Grindhaug, 2021)

This theme in a broad sense considers how the joining of ‘forces’ between the cooperative and their farming members helped to reduce the overwhelming expectations placed on the agricultural industry to operate more sustainably. It was clear the farmers understood they had a duty to ensure their operations were optimal. However, given the significant changes that were

necessary for some of the farmers to meet the new standards, it was not a decision they could simply make overnight.

"You have to be patient with some of the farmers... as for some farmers, it would mean minor steps, while for other farmers it would mean big steps" (Gunnar Alstad, 2021).

If the strategy takes a proactive and reflexive approach, over an 'elimination' approach, to try and remove anything deemed negative, it is likely to miss the greater potential of the project (Walker and Shove, 2007, p. 213). As by working together on solving the problem, it is likely to encourage greater uptake and acceptance, which aligns more suitably with achieving the sustainably shift, sustainably.

"I was eager to help the others, and you can do it if you just want to try and find someone to do it with" (Ingebjørg Grindhaug, 2021).

4.8 CONTRIBUTION TO ANSWERING THE OVERALL RESEARCH QUESTION

Typically, farmers have been instructed on a broad range of targets needing to be met in order for on-farm operations to be considered sustainable. However, with little considerations made on the practicalities of this beyond technological, political, and economic stimuli, it is clearly a problem then for the sustainable shift itself, to become more sustainable.

Organisational capabilities (whether internal or externally applicable), have shown their modern day relevance in their abilities "to change routines and conventions", and their potential applicability to influence the result of innovation processes (Petter Stræte, 2006, p. 1429). An important aspect of this though, is for the organisation or operating arena to ultimately consider how they can best pivot and adapt to leverage on this for greater action and build specific strategies (Petter Stræte, 2006, p. 1432). Which at times is reliant on stakeholders 'buying in' to the concept, to understand how action can be coordinated 'collectively', yet fundamentally is capable of revealing "hidden aspects of relations between actors" (Petter Stræte, 2006, p. 1430).

Many factors have been articulated as relevant in aiding the overall progression towards sustainable change, however this investigation took the opportunity to connect on several points which have previously been attributed with successful change in the industry, being initiatives as change mechanism, the social business type of cooperatives, as well as the social factor of stakeholder engagement. Thereby, trying to leverage on existing structures in the system, in consideration of how they may be applicable in the aiding the shift for the farmers.

Stakeholder engagement was selected as a social factor to specifically investigate, given its relevance in strengthening collaborative relationships amongst stakeholders. Despite the words of ‘stakeholder engagement’ not typically found in the vocabulary of farmers, the basis of it, is something that connects strongly with, particularly considering their location within agricultural supply chains, which is reliant on everyone else (stakeholders) beyond them to take their products to market. With agricultural cooperatives and their farming members selected as the two sets of actors (and stakeholders in the collaborative relationship), with which this investigation was based on.

With stakeholder engagement being understood as a contributing factor to the success of initiatives (which have a bigger role of aiding change in systems), it was determined then, that this social phenomenon could be well explored and considered by upon an initiative ran by an agricultural cooperative. Something that became more obvious upon moving through the key themes which were identified through the investigation, was the depth of insight witnessed within the layers. In considering the overall contribution that stakeholder engagement brings to overcoming the challenge of aiding sustainable on-farm operations, it was clear that its relevance went beyond being a temporary repair to the issue. Rather, the phenomenon helped to trigger a collaborative working relationship with farming members and the cooperative to understand what it means to have each other’s back. What it means to have a shared common goal, even if it means accepting a lower pay out because you would rather see other farmers also succeed. It took the animal welfare challenge and sought to comprehend it in a way, that could be worked into a manageable solution. Of course, there was disagreements about what the requirements were and if they were necessary, but we can acknowledge that there will always be individuals not happy with the status quo. What stakeholder engagement was able to show, was the strengthening of this internal framework to avoid future industry setbacks and even reinforce the arena for future initiatives.

“We can't just stand on the same point and produce products like we've been doing the last 50 years, because the times are changing” (Stian Nylend, 2021).

While the agenda for TINE's animal welfare initiative, contained nothing revolutionary for the farmers in terms of concepts, what it did allow was for a renaissance on addressing and overcoming a challenge together. As with dedicated focus and a streamlined agenda towards meeting these new animal welfare requirements together, brought a new sense of acknowledgement to the cooperative relationship also. For some, who had already instigated many of the requirements around animal welfare, this meant little more to them, while for others it gave them the confidence to take on these new requirements and see a positive side to it all and even help out other farmers. With a level of satisfaction in knowing that in the bigger scheme of sustainability, change does need to be made, which gave confidence for future challenges should they arise.

As for some, the idea of what it would take to make the necessary changes to meet the new requirements, were beyond them. Yet when they were able to connect on the initiative with shared goals and a clear alignment in objectives, this saw a greater willingness to engage, even if it did not remove the higher requirements. This captures the idea of what sustainability fundamentally 'should' mean for the dairy farmers, in that there way of going about solving the problems is done an effective manner that is naturally sustainable. Thereby being one, that they can internalise and not simply leave it waiting to grow on the surface.

While TINE's animal welfare initiative may not have reduced the national requirements for farmers, what it was able to contribute with, was reducing the 'scariness' of the new requirements. It was able to break the requirements down into processible and manageable steps for their farming members.

When the farmers could identify and connect with how TINE were deciding to handle the growing concern (and increasing requirements) for animal welfare, this proved to strengthen the alignment with one another, in recognising the needs of modern-day farming. Therefore, with the shared goals held between TINE and their farming members, this helps reinforce the potential of stakeholder engagement, which in turn is positively reinforcing in the overall goal of shifting towards more sustainable on-farm operations.

While it could be said that past activities or levels of engagement could be an influential factor in the future levels of engagement, this is by no means guaranteed. Yet, if farmers can recognise a distinct difference or benefit from taking part in activities and joining in the interaction, then this may provide an indication of future interaction and engagement with the cooperative.

“Because in TINE it’s what people want” (Hans Kristian Teien, 2021).

Fundamentally it was clear from the conversations held with everyone who contributed to this investigation that improving animal welfare standards, and sustainability in general was a goal that rang true for everyone. Yet, at times it was also apparent the farmers felt like they were being put in a box without any consideration of what was important for them when policy was being decided.

However, when the farmers had the opportunity to work together with TINE on their animal welfare initiative it seemed that the jump to reach the goals was now not totally out of reach, but also what was being asked of them, was something they actively wanted to work on.

While many of the farmers had indicated that the topic of animal welfare was perhaps driven by a growing demand from consumers, with TINE’s overall role in the supply chain (which extends right into the retail market), they could comprehend its relevance. It frustrated them, that they were being perceived in a negative way, and were interested to work together on improving this perception.

“I’m looking forward to trying to try and make our farming more sustainable for the environment... You can't just invest money in things that doesn't pay” (Stian Nylend, 2021).

Cooperatives have been able to become relevant again as the shift in the system has put a focus on food again “stressing compatibility” – how they fit into the supply chain and their ability to deliver quality food in a fair and sustainable manner. Yet, in what this means for the farming members of agricultural cooperatives, it suggests that an even greater volume of industry issues can be comprehended, Which may offer even greater resiliency in the future ahead. Further, with cooperatives continued ownership by their farming members, this will prove to be an effective way of ensuring farmers stay somewhat close to the directions of the company. What it does not warrant though, it that the opportunities are of interest to the farmers should it move too far away from what is actually important for the farmers.

Farstad et al. argues in their recent investigation (2020), that despite the myriad of actors surrounding farmers, internal industry initiatives led by these actors will be insufficient on their own to fundamentally change farming practices towards something more sustainable. In Farstad et al’s case, greenhouse gas emissions was the case problem at hand, with the conclusion that “significant changes would probably require both push and pull support from forces outside the agricultural system” (Farstad et al., 2020, p. 1). While their investigation was thorough, it took the potential of the actors to be pivotal based on their current ‘output’ levels. Which in the case of the specific investigation as illustrated in this thesis, could be a fair statement to be made in ‘current’ times. Yet if there was a clearer understanding about the potential for actors to help aid the farmers, as is explored in this investigation, then the future potential is still up for discussion. More recently, innovation within the agricultural industry has been based on restructuring how companies can contribute and pivot into a business that is not just market savvy, but also a company that can connect with its stakeholders. Which is a stark “contrast with the more conventional cost reduction or productivist strategies” that have largely been the basis of innovation and change to date across the industry (Petter Stræte, 2006, p. 1430).

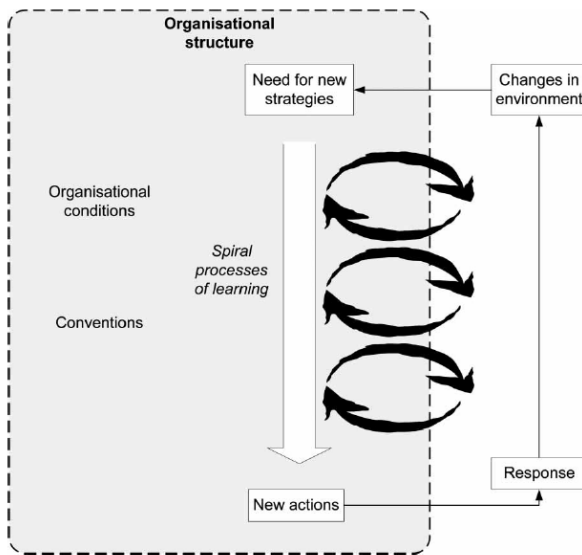


FIGURE 3 INTERNALISATION & EXTERNALISATION OF PROBLEMS (PETTER STRÆTE, 2006)

Just because stakeholder engagement may be a social factor that cooperatives can leverage or connect with more strongly than other business types, this does not guarantee it. Figure 3 demonstrates the process of internalising problems from the external environment and addressing them in a relevant way. While some may note that they are not in a position to help address the problem at hand, it is with flow diagrams such as this one, that reiterates change being an ongoing process, that requires persistence and patience. Something, which can

be further encouraged when you have close relations and nearby stakeholders to offer support and help provide stability in shared goals. This should be considered alongside the idea that the interest

in engaging with sustainable initiatives is not a given – “not all corporations actively utilize the notions of sustainable development” (Nicolăescu et al., 2015, p. 4).

Further, it could also be said that cooperatives face unique challenges from other business types, in consideration of stakeholder engagement, the need to liaise and check with all your stakeholders prior to moving forward on a business decision can be a slow and debilitating process for cooperatives, yet for IOFs seeking to make a decision, this can often be made very quickly and simply and if ‘stakeholders’ need or should be made aware of this, sure a media article can be written but there perhaps isn’t the same level of ‘responsibility’ to ensure that it is well communicated – it is just done, and if people want to learn more about it then they can choose to read up on it at their leisure. “Organisational structures, technologies, practices and cultures either help or hinder organisational learning and innovation (Totterdill, 2008, p. 268).

5 Conclusion

5.1 SUMMARY OF FINDINGS

For some, understanding and comprehending the sustainability agenda can be simple, but as we have seen previously, ideas are not necessarily translatable into action unless there is reinforcement. We need to look for leverage points in the system and appreciate the foothold these can provide to industries as they seek to revolutionise their operations and align themselves toward more sustainable behaviour.

With the greater potential of stakeholder engagement to help explain the success of collaborative relationships throughout the industry. In the case of this investigation, it was also able to be considered its relevance in aiding the sustainability shifts which the industry requires for farmers. Upon acknowledging how farmers comprehend and internalise the reality of the situation, but also the ways in which they engage with actors in the supply chain, it was evident that this social factor holds significance relevance for overcoming the challenges for farmers and provides leverage building options for them.

While farming members of agricultural cooperatives made up the group of farmers in the case, it was clear from the beginning that farmers recognised the typical cooperative principles which

may be relevant in their relationships today. However, it was also clear that they were not satisfied on the resilience going forward and were eager to understand how they could leverage on these relationships particularly if this is something relatively straightforward.

5.2 LIMITATIONS

This investigation takes a business and not a public policy perspective

Meaning that societal challenges and potential solutions are described from the perspective of the cooperative and their farming members, and it cannot be expected for all challenges to be totally overcome by effective stakeholder engagement. With the overall national responsibility for societies and the environment coming down to governments, the boundaries of stakeholder engagement's capacity would therefore need to be further explored.

This investigation seeks to understand how stakeholder engagement can be relevant to the sustainability of on-farm operations.

There is an awareness that the factor of stakeholder engagement is relevant to other 'places' throughout society. Yet, in this investigation, the focal point was specifically looking at it from a relevant perspective based on on-farm operations. While the findings could offer valuable insight and perspectives for other 'places' based on a different profile of characteristics, they should be placed into context prior to making any assumptions.

Takes initiatives as a suitable mechanism to base the relevancy on.

There are many mechanisms that can aid the sustainable shift; however, it was an initiative that was used as the basis of this investigation's case study due. While the success of the specific case was not quantified, there could certainly be merit in understanding how it fared, but also other alternatives available to drive the change.

Norwegian agriculture and society is unique

This investigation has investigated a recent initiative in Norway, and while there is certainly merit in considering this initiative in global standards, at some point, the findings and solutions will only

be relevant to Norway, given the unique context that this country has. Further, what constitutes a cooperative can vary between countries, given their own local interpretations of a cooperative law (if any).

This investigation was based on farming members of a dairy cooperative.

With TINE being a dairy cooperative, of course, points were raised which were specific to the dairy industry, and different sectors within the system are likely to face different specific challenges and thereby likely to see stakeholder engagement relevancy vary.

The farming members are not obliged to take on these initiatives.

Just because it was possible to speak with eight different farmers on the topic of their engagement and relationship with TINE, on-farm sustainability and the animal welfare initiative does not mean that the findings can be representative of all farmers

5.3 SUGGESTIONS FOR FURTHER RESEARCH

While this investigation sought to identify the relevance from farming members of agricultural cooperatives, it would be interesting to perform a comparative investigation – to understand the relevancy (and applicability) of stakeholder engagement from farmers who are supplying other business types within the industry.

With the surrounding system largely influential in determining the overall direction and expectations of the industry, it could be an interesting study to explore examples where there have been relevant overlaps with stakeholder engagement. In addition to other established factors found throughout the industry, as some factors may be more ‘accommodating’ than others, which could have a huge impact on the potential outcome of individual initiatives experience.

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7 Appendices

7.1 Appendix 1

Interview Questions for TINE Farming Members, Animal Welfare case

1. Tell me about yourself

- a. What is your background, experiences that have led you to be where you are now?
 - i. Family
 - ii. Academic – schooling, university?
 - iii. Professional - work life off the farm?, but also perhaps within it ... experience working in the agricultural industry?
 - iv. Cultural, involvement with organisations, volunteer work, unions
 - v. Travel – experiencing, witnessing other countries methods of farming etc.

- b. What is the farm’s history?
 - i. Is this a family farm?
 1. How long have you been farming it for?
 - ii. Has the size of your farming operations changed?
 1. Has this been considered?
 2. Have you been growing your farm size, through lease, or additional buying? – what has encouraged this?
 - iii. How would you describe the current state of your farm and its operations?
 1. Consider this from an economic viability, future outlook, opportunities, continued interest in farming (yourself & future generations – children who want to farm?), increasing rules and regulations placed on the industry, support for farming – politically, community, consumers etc.

- c. What is the history of livestock (animals) on the farm?
 - i. Has there always been dairy cows?
 - ii. Why dairy cows?

- d. What motivates you as a farmer? what inspires you?
- e. What are your thoughts on agriculture in Norway?
 - i. Past, current, and future
- f. What are your thoughts on dairy farming in Norway?
 - i. Past, current, and future

2. Future of Farming:

- a. What is your opinion of ‘sustainable’ farming?
 - i. What has shaped this opinion? ... research, farmers union, TINE, other farmers?
 - 1. Who has been most influential for you?
 - 2. How realistic do you feel their opinions around what is sustainable farming are, to fulfil as a farmer?
 - ii. How aligned do you feel your operations are, to these descriptions/perceptions of sustainable farming?
 - iii. How would you perceive your ‘alignment’ to the view of farming sustainably, compared with other farmers:
 - a. within Norway?
 - b. within your region around you?
 - c. Does this matter to you?
- b. Whose responsibility is it to shift/change on-farm operations to become more sustainable?
- c. What makes adopting sustainable practices easy?
- d. What makes adopting sustainable practices a challenge?

- e. Across the entire discussion of sustainable agriculture, which topics do you feel most inclined to join in with – be involved with?
 - i. Why do you think this is the case – what interests you in these topics over the others?
3. **Relationship with TINE:**
- a. Who is TINE to you?

 - b. Describe your relationship with TINE
 - i. How long have you had this relationship with TINE?
 - ii. Describe your level of involvement with TINE – eg. Tillatsvalg, regional boards etc?
 - iii. Has this level of involvement changed over the years?
 - iv. What have been deciding factors in your level of engagement with TINE?
 - 1. Are there any other milk processors in the area who you could sell your milk to?
 - v. Strengths of the relationship – in what ways has the relationship been positive, easy, helpful?
 - vi. Weaknesses of the relationships – in what ways has the relationship been negative, difficult, unhelpful?

 - c. What does your future relationship with TINE look like given the current direction?
 - i. Opportunities for future of the relationship?
 - ii. Challenges (or limitations) of the relationship for the future?
 - iii. Are you satisfied with this relationship?
 - 1. What are YOU doing/going to do in order to improve this?
 - 2. What do you need FROM TINE in order to improve this?

 - d. What is your understanding of the cooperative business model?

- i. What does it mean for TINE to be a cooperative?
 1. Are you familiar with any other cooperatives in the agricultural industry?
 2. What is the impact of cooperatives in the agricultural industry?
 - ii. What does it mean for you to be supplying/working with/to be a member of a cooperative?
- e. Relationship with TINE regarding sustainable farming
- i. What influence has TINE had on aiding your concern, interest, engagement on sustainable agriculture?
 - ii. How do you feel about this level of involvement, regarding TINE and sustainable agriculture?
 1. Is this satisfactory for YOU given the ‘importance placed on:
 - a. the future of farming sustainably
 - b. what you need/require as a farmer to continue supplying TINE with sustainable milk?
4. **Animal Welfare Project: use this project as a recent example to help you consider/think about the nature of your relationship with TINE, and its influence/contribution to initiating, developing and implementing on-farm sustainability projects.**

TINE’s animal welfare project went through a series of developments before it was launched as an ‘official’ project/initiative. Depending on your relationship with TINE, this will likely dictate at what stage in the process you joined.

As mentioned in the initial 2-page brief that was given to you with further information on the purpose of this investigation. A 3-stage process was mentioned – initiation, development, and implementation.

- a. At what stage in the process did you join/become involved in the animal welfare project?

- i. Did you feel this was appropriate given the level of the relationship you have in TINE?
- b. Try and consider your opinions about animal welfare BEFORE this project was developed:
 - i. What was your perception about animal welfare?
 - ii. How did you perceive your alignment with Norway's laws about animal welfare?
 - iii. What is your perception of Norway's standards globally?
 - iv. Can you remember ever questioning your practices/operations regarding animal welfare?
 - v. How was the topic first introduced to you from TINE?
 1. Describe this – was there the opportunity to talk about things and develop a common goal together, or was it largely led/directed/dictated by TINE`?
 - vi. Consider your reactions to the announcement/launch of the project by TINE
 1. What were your initial thoughts about it?
 2. Did you feel motivated/inspired to engage listen, read, try etc?
 - vii. The specific animal welfare topics/themes that TINE chose to focus on (see attached document, which was supplied to all members).
 1. Did these topics connect with you – did they feel relevant, applicable, achievable, worthwhile?
 2. Did you feel confident that these goals/strategies could be met?
 - a. By you?
 - b. By other TINE members around the country?
 3. How important is it that these goals/strategies can be achieved and not simply just talked about?
 4. Did you consider challenging/questioning these topics?
 - a. Is this possible? Are there good opportunities to do so?

- b. Have you ever challenged TINE’s directions previously on another project?
- viii. Given that this was a nationwide project by TINE, which had relevance for all members:
 - 1. How would you describe the opportunities/platforms given/suggested to you by TINE to engage with the project?
 - 2. What impression did you get that the series of opportunities (steps taken in the process) were helpful in directing you in the process – to successfully improve your animal welfare situation on farm.
 - 3. Timeframes – did you feel the process moved at a suitable speed for you? One that kept you engaged and didn’t move too slowly, but also not one that moved too fast.
 - 4. Integration with resources/tools. If an improvement, required you to invest in new technology, change your barn etc. Did you understand the necessity/importance of this in order to achieve the overall goals of the project? understood?

When considering the questions in 5a-5d (above), what influence do you think your relationship with TINE contributed to you engaging with the project on a variety of levels?

- Do you consider these:
 - o unique attributes of TINE?
 - o A strength of TINE?
 - Cooperative specific?

5. Consider where you as a farmer, with cows, supplying TINE are at now in terms of overall on-farm sustainability:

- a. Do you feel like you have made ‘worthwhile’ changes according to TINE’s strategies around animal welfare?
- b. Would you consider these changes satisfactory given the time, energy, resources etc spent?

- i. Do you feel like the project was a success?
 - 1. What would YOU do differently next time?

- c. Think back to the earlier question on cooperatives... do you think there are any unique aspects of TINE being a cooperative, which could be helpful in aiding this sustainable shift of your on-farm operations? – characteristics etc.
 - i. What needs to change in order to increase the leveraging capacity of this?
 - 1. Do you feel like YOU have sufficient knowledge on how YOU need to best utilise the relationship with TINE?
 - 2. What about TINE? ... their approach, their way of handling the topic of farm sustainability with their members?

- d. How interested would you be in participating in future projects with TINE regarding on-farm sustainability?



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