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Organic Without Certification

A Case Study on the Motivations of Farmers in the Village of Ogawa Machi to Become Non-Certified Organic Farmers

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Abstract.

In the 21st century organic farming has witnessed remarkable growth worldwide. However, Japan has lagged in this development, with a relatively low proportion of land dedicated to organic farming compared to the global average. This study investigates the case of Ogawa Machi, a village near Tokyo, where a significant number of farmers practice organic farming. Interestingly, all of them are operating as self-proclaimed organic farmers, none of the farmers in Ogawa Machi possess organic certification. This study aims to uncover the motivations behind their adoption of organic farming methods and their decision to forgo organic certification.

This research was conducted as a case study. The farmers of Ogawa Machi were interviewed and asked to explain their reasonings for becoming organic farmers without applying for a certification.

This paper reveals the reasoning that the farmers had for becoming organic farmers and the reasons for these farmers to not have applied for organic farming certification. These reasons are then discussed in the context of organic farming in Japan and in the broader context of non-certified organic farming around the world.

Key words: Noncertified, Organic farming.

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1 Introduction

1.1 Status quo of organic farming in Japan

Organic farming is a growing phenomenon and has experienced tremendous growth worldwide in recent years. The amount of land used for organic farming increased from 11 million hectares in 1999 to 72 million hectares in 2019. Economically, the sector has also seen significant expansion, with its size multiplying from 15.1 billion euros in 2000 to 106.4 billion euros in 2019 (FiBL, 2021). This growth indicates an increasing popularity of organic farming among the general public as is later discussed by this thesis. This popularity aligns with the basic rule of supply and demand which states that there must be demand for a product for there to be a supply. In other words, it wouldn't make sense for farmers worldwide to engage in organic farming if there were no buyers for their produce.
The increase of popularity of organic farming around the world could be explained by the increase in the concern of consumers on issues such as health and environmental conservation. (Zhu et al., 2020). For example, in the United States environmentally and socially consciously advertised products are favoured by consumers and such products have experienced increased sales within the past 5 years (Jordan et al., 2023). This shows how consumers take more and more into consideration environmental aspects in their purchase decisions.

Despite the global increase in organic farming, Japan has been lagging this trend. Over the past 10 years, the growth rate of arable land used for organic farming in Japan has been only 19%, which is significantly lower compared to other developed countries. For instance, Italy and Finland have experienced growth rates of 79% and 81.2% respectively during the same period (FiBL, 2021). Furthermore, the proportion of land used for organic farming in Japan is relatively small, accounting for only 0.2% of arable land, while the worldwide average is 1.4% and in Finland, it was 13% in 2019 (Miyake et al., 2020; Väre, 2021).

Even when comparing Japan to South Korea, a culturally and historically close country, Japan remains an outlier in terms of organic farming. South Korea utilizes 1.2% of its arable land for organic farming, six times the percentage in Japan, and has experienced

much higher growth rates, with the land area used for organic cultivation increasing by 91.5% in the past 10 years (Miyake et al., 2020).

These statistics highlight the relatively slow progress and lower adoption of organic farming practices in Japan compared to other countries, indicating the need for further examination, and understanding of the factors contributing to this disparity.

1.2 Certified organic farming in Japan

According to the Research Institute of Organic Agriculture FiBL (2021), around 11,000 hectares of agricultural land in Japan are used for certified organic farming, which accounts for 0.2% of all arable land in the country as stated before. The total land area used for organic farming, including non-certified farming, is estimated to be around 23,000 hectares, representing approximately 0.5% of the entire farming land area in Japan (MAFF, 2019). Essentially this means that, there are lesser amount of certified organic farmers in Japan than non-certified organic farmers. This raises the question of why only less than half of organic farmers in Japan choose to seek certification.

As stated by the Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF, 2022), organic farmers are required to obtain JAS (Japanese Agricultural Standards) organic certification in order to sell their produce as organic. Farmers who do not apply for certification are not permitted to label their products with the official JAS organic logo.

This requirement is not unique to Japan, as several other countries also require certification in order to sell products as organic. For instance, in the member states of the European Union certification is mandatory for all products labelled as "organic" (European Commission, 2023). Similarly, both Japan and the EU restrict the use of an official logo to certified entities selling organic products.

In many countries, including Japan and the member states of the EU, farmers are required to meet specific criteria to obtain organic certification. For example, in Japan, farmers seeking organic certification must have refrained from using chemical pesticides for two years prior to their application (Yoshihisa, 2015). Moreover, farms with Organic JAS certification in Japan undergo annual inspections. Similarly, in the EU, the requirements

include a period of no pesticide use ranging from two to three years before application, depending on the crop (European Commission, 2023).

The transition from conventional non-certified farming to organic farming can pose financial challenges, as products cannot be sold as organic during the conversion period. Consequently, farmers may incur costs during this transition phase, including higher labour expenses, as organic farming is more labour-intensive than traditional farming, and lower yields due to the absence of chemical pesticides and fertilizers (Crowdera et al., 2015). Therefore, in several countries, like those of the European Union, farmers must adhere to organic farming methods for a certain period before applying for certification bearing the associated costs without being able to sell their products as organic during that time.

To support farmers during this transition, farmers are often provided with subsidies. In Japan, the subsidies awarded are contingent upon the size of the farm (Miyake et al., 2020), while the European Commission also acknowledges the provision of subsidies to assist farmers (2023).

The low percentage of certified organic farmers in Japan suggests that there may be various reasons why farmers opt not to pursue certification, such as the costs and complexities associated with the certification process, limited awareness of the benefits of certification, or different approaches to organic farming, that may not align with the specific requirements of JAS certification. Research and exploration into the motivations and barriers faced by organic farmers in Japan could provide valuable insights for promoting and expanding the organic farming sector in the country. This thesis aims to achieve exactly that, by taking a look into the situation of a specific geographical area. More specifically a village.

1.3 The potential effect of the size of the farm on the decision to certify

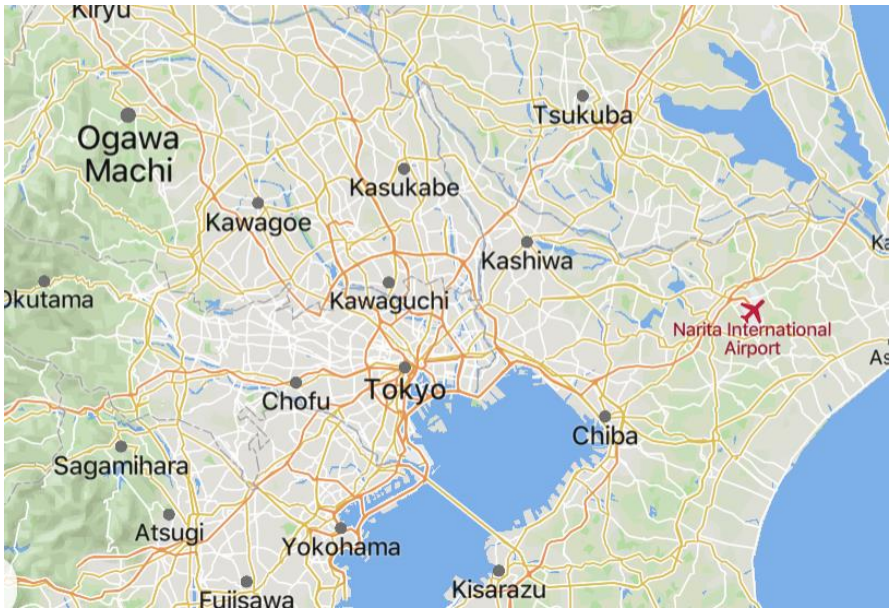
Farming organically without certification is not uniquely a Japanese phenomenon, however. An article “To certify or not to certify? Separating the organic production and certification decisions” (Veldstra et al., 2014) concludes that in the United States a large group of farmers farm organically without certification. According to the paper, there

could be a correlation between the farm size as well with smaller farms choosing not to apply for organic certification due to cost related issues.

In Japan the average farm size is 2.99 hectares (MAFF 2, 2019), which is relatively small when compared to United States, where the average size was 180.49 hectares in 2023 (USDA, 2023) or Finland where the average was 52 hectares in 2022 (Luonnonvarakeskus, 2022). This could potentially explain some of the reluctancy of Japanese farmers for applying to certification. The income generated by a farm typically increases as the size of the farm increases (Noack et al., 2019). The cost of the certification process can be burdensome for smaller farms, particularly when compared to the revenue generated. As smaller farms often face financial constraints, and the cost of certification may be proportionally higher for them. In contrast, larger farms may find it relatively easier to bear the cost, as they have a higher revenue base.

The relatively small size of farms plays an important role in this research as well. As is explained later, the farmers participating in this research all owned a farm close to the average size of farms in Japan. The relatively small size of farms in Japan therefore has to be taken into consideration as it can have an effect on the motivations and views that the farmers can have.

1.4 The case study village



Location of Ogawa Machi relative to Tokyo

Although organic farming enjoys a relatively low popularity around Japan, there are some exceptions, especially when it comes to non-certified organic farming. One notable example is a relatively small village called Ogawa Machi[1], which is the concentration of this case study. The village is located approximately 60 kilometres north of Tokyo and has a population of approximately 28,000 people (Ogawa town, 2023). What makes this otherwise ordinary Japanese town special is a relatively high concentration of non-certified organic farmers. No official statistics can be found, due to the fact that there are no certified organic farmers in Ogawa Machi. Therefore, in official statistics all farmers in Ogawa Machi would be listed as non-organic farmers. However, during the course of writing this thesis I interviewed several farmers in Ogawa Machi and a director of an organic farming organization. All these people I interviewed estimated the number of farmers who farm using organic methods to be around 15-20% of all farmers in Ogawa Machi. If the assumption of 15-20% of farmers being organic farmers was indeed true, it would mean that Ogawa Machi would have a much higher concentration of organic farmers than the rest of Japan. The number that came up is an estimate and not a fact but gives some indication of the popularity of organic farming in Ogawa Machi.

The relative popularity of Ogawa Machi amongst organic farmers seems to be no coincidence, however. As several of the farmers interviewed for this paper explained, a farm called Shimosato was the first notable organic farm to have been set up in Ogawa Machi over 40 years ago in 1970s. The founder of Shimosato farm, Kaneko Yoshinori[2], was a significant reason for several of the organic farmers in Ogawa Machi to start farming organically.

I personally knew Mr. Kaneko and even worked at Shimosato farm briefly in 2015. My experience of working at Shimosato Farm was one of the main reasons why I selected this topic for my thesis and chose Ogawa Machi as the case study location. During my time at Shimosato, I had the opportunity to personally experience life in the village of Ogawa Machi and noticed the relatively high popularity of organic farming in the area. The people living in the village seemed proud of the village's unofficial reputation as an organic farming hub, and there were several restaurants that advertised locally grown

[1] The name of Ogawa Machi is in the same format as is used by the town itself in English translations
[2] In this thesis Japanese names will be in the order last name-first name. Names are translated using modified Hepburn system.

foods and these locally farmed products were advertised using terms such as “pesticide free”. Later, as I discovered the lack of JAS certification and the rules regarding the usage of the term “organic,” avoiding the word “organic” in the advertisements of local restaurants seemed to make sense. A book written by Mr. Kaneko also mentions several restaurants and stores in Ogawa Machi that sell locally produced organic products (Kaneko, 2015).

The strong sense of community among the organic farmers and the villagers caught my attention. In 2015, all of the organic farmers I met knew each other, and many had trained at Shimosato Farm under the guidance of Mr. Kaneko. When considering potential research subjects for this thesis years later, I recalled my experience at Shimosato Farm and felt a strong desire to delve deeper into the topic. Initially, my intention was to explore the reasons why these farmers had chosen to start farming organically. It was only later that I discovered the absence of JAS certification among the farmers, which provided an additional interesting research question and added an interesting aspect to the case of Ogawa Machi.

1.5 Introduction to the research

Since interviews were chosen as the research method for this paper, I planned to commence my interviews with Mr. Kaneko, whom I contacted before my research trip took place. Fortunately, Mr. Kaneko graciously agreed to participate. I believed that starting with Mr. Kaneko would be an excellent way to begin my research, considering that all the farmers I had met in 2015 knew him, and many had received training under his guidance. I anticipated that Mr. Kaneko's insights on why he started farming organically and his efforts to train other farmers would be a central aspect of this study. I also hoped that Mr. Kaneko could introduce me to other farmers in Ogawa Machi whom I could interview. Unfortunately, my research encountered its first obstacle at this point: Mr. Kaneko passed away in the autumn of 2022, and I was unable to conduct an interview with him. In order to get insights of Mr. Kaneko included in this thesis, a book

written by Mr. Kaneko was used. The book is titled: "A Farm with a Future: Living with the Blessings of Soil and Sun," (1994).[3]

In addition to the book an interview with his son added important aspects to the thesis as well as a guidebook written by Mr. Kaneko titled “Shimosato, community development with Mr. Kaneko” (Kaneko, 2015).[4]

In the end, I conducted interviews with five farmers residing in Ogawa Machi. In addition to the local farmers, I also interviewed a representative from the Japanese organic farmers platform " Zenyukyo," who provided valuable insights into the case of Ogawa Machi and the current state of organic farming in Japan. I interviewed Mr. Obaro on the 2nd of November 2022. Mr Obaro was also a founder of a much smaller organization called “The Organic”, which was according to him, a more personal project. The participation of Mr. Obaro on two different projects showcases his passion towards organic farming. Furthermore, I had the opportunity to interview Mr. Tsurunen Marutei, a former senator of the Democratic Party of Japan. Mr. Tsurunen played a significant role in the formulation of the organic farming law of 2006 (Act on Promotion of Organic Agriculture, act 112, 2006). I was fortunate to secure an interview with him as a personal favour since he is my father's father. The interview with Mr. Tsurunen took place on the 24th of December 2022.

In summary, this study aims to provide valuable insights into the case of Ogawa Machi, where a significant number of farmers practice organic farming methods. The paper will explore the reasons behind the farmers' decision to adopt organic farming practices and examine why they have chosen not to pursue JAS organic certification for their farms. These findings will subsequently be analysed within the specific context of organic farming in Japan and within the broader context of non-certified organic farming globally.

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[3] The book “a farm with a future: living with blessings of soil and sun” has been translated to English and therefore additional translation work is not necessary.

[4] The book “Shimosato, community development with Mr. Kaneko” was written in Japanese and everything, including the title has been translated by me. This book is more of a guidebook and does not contain many actual opinions of Mr. Kaneko but does add important context.

1.6 Research questions

The primary objective of this study is to investigate the motivations behind the decision of farmers in Ogawa Machi to practice organic farming without pursuing JAS (Japanese Agricultural Standard) organic farming certification, as well as to explore their attitudes towards the JAS organic farming certificate. To accomplish this, a series of interviews were conducted with farmers residing in Ogawa Machi.

It is important to note that none of the interviewed farmers possessed JAS organic farming certification; however, they self-identified as organic farmers.

The research questions guiding this study, are as follows:

1. What factors influenced the decision of organic farmers in Ogawa Machi to adopt organic farming practices?
2. What are the reasons for the absence of the JAS organic farming certification among farmers in Ogawa Machi?

By addressing these research questions, the study aims to shed light on the motivations and perspectives of organic farmers in Ogawa Machi, providing insights into their choice to engage in organic farming without seeking formal JAS certification. This research is important for a comprehensive understanding of the organic farming landscape in the region and may contribute to discussions surrounding the adoption and perceptions of certification systems in the agricultural sector.

In addressing the first research question, the study will explore the considerations that influenced farmers' decisions to adopt organic farming practices. This will involve examining the perceived benefits, costs, and expected outcomes associated with organic farming, as well as the availability and accessibility of resources and information related to organic practices.

For the second research question, the study will delve into the reasons behind the absence of the JAS organic farming certification among farmers in Ogawa Machi. This will involve investigating factors such as the perceived costs and benefits of certification, the

credibility and relevance of the certification system, alternative options available to farmers, and external influences that may shape their decision-making.

In conclusion the study aims to provide a comprehensive understanding of the decision-making processes of the organic farmers in Ogawa Machi. The findings will contribute to the existing literature on organic farming and certification systems, offering insights that can inform strategies for promoting certification adoption or addressing any barriers identified within the context of Ogawa Machi. The findings of this study could provide preliminary information for the cases of other regions in Japan as well.

2 Review of literature

This chapter provides important definitions related to organic farming in the context of this paper and offers a summary of the brief history of organic farming in Japan as well as an introduction on the special aspects of farming in Japan in general. Additionally, it examines existing data and literature on organic farming both domestically and globally. The section also delves into the phenomenon of non-certified organic farming worldwide. To supplement the information, interviews with Mr. Obaro Sotaro, an expert in Japan's organic farming landscape, and Mr. Tsurunen Marutei, a former senator who focused on organic farming legislation, are included.

2.1 Definition of organic farming

In the recent past, the increase in the human population has necessitated the invention of more productive farming methods compared to those used previously. With the rapid population growth, the demand for food has also significantly increased (Gamage et al., 2023). As a result, the usage of chemical fertilizers and synthetic pesticides containing substances like nitrogen and potassium has become necessary to enhance field productivity rates (Chandini et al., 2019). However, the use of synthetic fertilizers can have notable negative effects on the soil, degrading its quality (Gamage et al., 2023). Moreover, these chemicals can accumulate on plants and eventually find their way into the human body through consumption (Chandini et al., 2019). In response to these issues, organic farming practices have emerged as an alternative solution (Gamage et al., 2023).

When discussing organic farming, it is often associated with sustainable farming; however, it is important to differentiate between the two. While both sustainable agriculture and organic farming share similarities, such as their focus on conserving the environment through the use of renewable resources (Poincelot, 1986), sustainable agriculture is a broader term encompassing various farming methods aimed at nurturing society, the environment, and the economy (Gamage et al., 2023). Not all sustainable farming practices are organic farming, but all organic farming can be considered sustainable farming (Poincelot, 1986).

According to the Food and Agriculture Organization of the United Nations (FAO), there are multiple explanations and definitions for organic agriculture, but they all emphasize

its reliance “on ecosystem management rather than external agricultural inputs” (FAO, 2023). The consistent element across these definitions is the absence of external synthetic pesticides or fertilizers. The FAO states that organic farming aims to improve the health of the agricultural ecosystem. Therefore, the exclusion of chemical fertilizers or pesticides is the most important requirement for organic farming in this study.

Since this study focuses on Japan, the most relevant definition for organic farming pertains to organic farming practices in Japan. However, since none of the farmers in this study are certified, there is no assurance, apart from the farmers' own claims, that no chemical pesticides or fertilizers have been used. Certification serves as proof of organic farming methods, but it is not a criterion, meaning that a farmer can practice organic farming even without certification.

2.2 Certified organic farming

In many countries, organic products must undergo certification in order to be sold as organic. However, there is no universal certification system for organic farming, and each country establishes its own requirements. Furthermore, some countries do not have a certification system for organic products at all. In Africa, for example, only a few countries have a national certification system, while others rely on external certification standards for export, primarily those set by the European Union (Bouagnimbeck, 2011). However, certification is mandatory in major economies such as the European Union (European Commission, 2023), the United States, and Japan (USDA, 2023; MAFF, 2023).

Certification can be considered as proof that the farmer adheres to the specific methods required in the certification process. In this thesis, the definition of certified organic farming in Japan holds significant importance. Although the farmers in Ogawa Machi do not have JAS certification, the official definition provided by the Japanese government offers a framework to determine whether a farmer can be considered an organic farmer, regardless of their certification status.

In the case of Japan the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan adopts the same definition as FAO on its official website (MAFF, 2023) However,

according to MAFF, the official definition in Japan stipulates that all products labelled as organic must above all adhere to the "Japanese agricultural standards for organic plants" . The most important requirement that MAFF requires organic farmers to adhere is prohibition of the usage of chemical or synthetic pesticides or fertilizers for a period of two years. In addition, MAFF requires that a farmer must take caution to not have prohibited substances, such as chemicals flowing into their fields from surrounding areas as well as not use “Recombinant DNA technology” (MAFF 3, 2023) In essence the latter requirement prohibits genetic modification of organisms (GMO) (WHO, 2023). These requirements are not much different from, for example, that in the European Union, as mentioned above. In addition, MAFF requires the farmers to pass annual investigations. (MAFF 2, 2023).

2.3 Features of farming in Japan

As this thesis covers the topic of organic farming in Japan, it is necessary to introduce the current situation in Japanese agriculture in general. Japanese farms are typically rather small, with the average farm size being 2.99 hectares (MAFF 2, 2019). The Japanese topography is also very mountainous, which makes farming challenging. In fact, due to the challenges posed by the topography, only 20% of the land area of Japan is suitable for agriculture (Statista 2, 2023). The Japanese agricultural sector is also more concentrated on crop production rather than livestock farming (Statista 2, 2023).

Over the past 60 years, Japan has experienced relatively rapid industrialization, resulting in a decline of approximately 51% in the number of farmers (USDA, 2022). The portion of land used for farming in Japan has also decreased. In the past decade alone, the agricultural land has fallen from 12.6% to less than 12%, representing a 5% decline (World Bank 4, 2023). This decrease in farmland has also led to a significant decline in the agricultural sector's contribution to the Japanese economy. From 1995 to 2023, farming's share of Japan's GDP has dropped from around 2% to less than 1% (World Bank 2, 2023). Nevertheless, this trend is consistent with several other industrialized countries, such as Germany and the United States, though the drop has been less severe in those countries compared to Japan (World Bank 2, 2023). Consequently, farming does not play a major role in the Japanese economy. It is however important to note that in Japanese politics farming has traditionally held great importance. Japanese Liberal

Democratic (LDP) party that has dominated the Japanese politics for a long time, originally managing to become the dominant party, mostly through the support of farmers (Umeda, 2019, p.10). Due to the strong popularity amongst farmers, LDP has protected farmers trough government policies (Umeda, 2019,p.13), even though relatively small percentage of Japanese economy derives from agriculture.

As only 20% of the land area of Japan is suitable for agriculture, the available land area is mostly used for farming. Since 12% of the total land area of Japan is used for agriculture, this means that around 60% of the total land are available for agriculture is used. It is notable however, that the self-sufficiency ratio of food in Japan, is notably low at 37% of total caloric intake in Japan (MAFF, 2020)

Amid this decline in agriculture, there is one notable exception: rice production. Rice holds significant importance in the Japanese diet, as well as a great symbolic value, leading the Japanese government to place great emphasis on domestic rice production. Import restrictions on rice contribute to higher prices for Japonica rice, the most popular rice variety in Japan, compared to other countries (Hisao et al., 2003).

Despite the decline in agricultural land, Japan has maintained a remarkably high self-sufficiency ratio in rice production, standing at 98% in 2021, even increasing from 96% in 2012 (MAFF 4, 2023). This high self-sufficiency is achieved through government-mandated pricing for rice, which supports local rice producers. Additionally, the Japanese government provides subsidies to rice farmers, with 35% of all producer support in 2010 going to rice farming, despite rice contributing only 20% of Japan's total agricultural output (Takahashi, 2012). These subsidies and import controls serve as significant incentives for many farmers to continue growing rice. The typical Japanese rice farmer is often a small-scale household farmer, cultivating rice paddies less than 3 hectares in size (Hisao et al., 2003).

In the context of this thesis, these features of Japanese agriculture are crucial background considerations. Farmers in Ogawa Machi, like many others in Japan, grow rice and benefit from government subsidies. Understanding the decline of the Japanese agriculture sector is also essential for comprehending the broader context within which organic farming operates as agricultural policies impact organic farmers as well.

2.4 History of organic farming in Japan

It can be argued that organic farming has existed in some form for as long as farming itself. Synthetic fertilizers and pesticides were certainly not available thousands of years ago. However, William Lockeretz argues in his book; “Organic farming, an international history” (2007, p.IX) that organic farming has to be intentionally practiced and therefore organic farming has only been practiced in recent times.

The modern history of organic farming started in the early 20th century, a period characterized by growing concerns about the detrimental effects of intensive chemical use in agriculture. The excessive reliance on chemicals in farming practices resulted in the degradation of soil and the production of low-quality food (Lockeretz, 2007, p. 9). As a response to these concerns, the first movements advocating for organic farming emerged in the 1940s, seeking alternative agricultural practices that were more environmentally and socially sustainable (Lockeretz, 2007, p. IX). However, it was not until the 1960s that the initial standards and regulations for organic farming were established, providing a formal framework for the organic agriculture movement (Lockeretz, 2007, p. IX). These standards aimed to guide and regulate organic farming practices, ensuring adherence to principles of ecological sustainability and the avoidance of synthetic inputs.

However, the aforementioned developments primarily occurred in the Western context. In Japan, the history of modern organic agriculture can be characterized by two distinctive periods. The first period emerged in the 1930s when two influential figures, Masanobu Fukuoka, an agricultural philosopher, and Mokichi Okada, a religious leader, began practicing and demonstrating their organic farming methods (Miyake et al., 2020). Masanobu Fukuoka, in particular, is widely recognized as a pioneering figure in organic farming globally (Miyake et al., 2020). Fukuoka's farming method, better known as the Fukuoka method, promoted the usage of natural methods in farming with an idea that nature supports crop production at its core. (Miyake et al., 2020) The Fukuoka method remains highly regarded as a viable form of natural farming and continues to be actively promoted. For instance, the United Nations Development Program (UNDP) in Timor-Leste advocates for the adoption of natural farming methods, including the Fukuoka method, as part of its agricultural development initiatives (UNDP, 2018).

The second notable period in the history of Japanese organic farming emerged in the 1980s, characterized by the implementation of the *teikei* method. Under the *teikei* method, farmers formed collectives in collaboration with consumers, establishing predetermined agreements regarding the products and prices (Miyake et al., 2020). This method bears resemblance to the current system observed in Ogawa Machi. During my observations at Shimosato Farm, I noticed that the farm predominantly sold its products directly to consumers who were members of the cooperative. These products were then delivered to each consumer according to agreed-upon intervals, typically on a weekly basis. This practice aligns with the early days of Shimosato Farm, as described by Kaneko Yoshinori in his book "A Farm with a Future: Living with the Blessings of Soil and Sun" (1994). Kaneko explains that a group of nearby families would pay a monthly fee to Mr. Kaneko, and in return, they would receive a predetermined amount of products (p.60). Interestingly, Kaneko also notes in his book that consumers at that time were less concerned about the safety of the food and instead paid more attention to the appearance, colours, and pricing of the products (1994, p.58). In his newer book “Shimosato, community development with Mr. Kaneko”, Mr. Kaneko does not directly talk about such system, but he does mention that the *teikei* system still has significant influence on the operations of Shimosato farm and that products are still often delivered directly to consumers (Kaneko, 2015, p.12). This note supports my own observation that the system is still highly used.

The continued use of this practice today demonstrates the lasting influence of the *teikei* method on the local agricultural community. As Kondoh Kazumi[5] explains in his paper (2015), *teikei* is primarily a grassroots movement that involves small-scale farmers and their immediate surrounding community. It was an initiative born out of farmers and consumers themselves to promote organic farming. However, as Kondoh further explains, the popularity of the *teikei* movement has declined in recent years.

Both the Fukuoka method and the *teikei* movement were grassroots movements that played a significant role in the early development of organic farming in Japan. However, the next major advancement in the organic farming sector would come from the top, as

[5] This romanization of the name was used by the writer themself.

the Japanese government began to take interest in the growing global organic farming movement.

In the 1990s, the Japanese government showed increased interest in promoting organic agriculture through legislation, and in 2001, the Ministry of Agriculture, Forestry and Fisheries (MAFF) implemented the JAS (Japanese Agricultural Standard) organic certification system (Miyake et al., 2020). However, as discussed by Miyake Yoshitaka in his paper titled "History, ethnicity, and policy analysis of organic farming in Japan: when 'nature' was detached from organic,"(2020) the JAS mark initially faced backlash from farmers. They believed that the system did not provide adequate guidance for farmers and did not consider the uniqueness of Japanese agriculture. As explained in the paper, unlike the Fukuoka method and the *teikei* movement, which were initiated by farmers themselves, the JAS certification system was criticized for being developed in a "top-down" manner, without considering the farmers' experiences and the cultural farming traditions of Japan.

Negative attitude towards the JAS mark was also confirmed during an interview for this thesis with Mr. Obaro Sotaro, the director of an organization dedicated to promoting organic farming, who had previously worked closely with the JAS certification system. According to Mr. Obaro, the government did not pay adequate attention to the real-life experiences and methods used by Japanese farmers.

The development of legislation towards organic farming did not halt with the introduction of the JAS certification. It can be argued that in the 21st century organic agriculture in Japan has received more attention than ever in modern history. In 2006, the Japanese government enacted the "Law of Promoting Organic Agriculture," which provides a clearer definition of organic agriculture and mandates the promotion of organic farming methods by both the central and local governments (Act on Promotion of Organic Agriculture, act 112., 2006, article 1).

The aim of the law was to enhance the adoption of organic farming methods, as explained by a former Senator of the Japanese upper house, Mr. Tsurunen, whom I interviewed for this thesis. Mr. Tsurunen was one of the key advocates of the law. One notable thing, as explained by Mr. Tsurunen, was that the law was passed with votes from all parties in the senate. This according to him, shows that the Japanese public and

the government are clearly in favor of increasing support for organic farming in Japan. Mr. Tsurunen also explains that as he was in personal contact with several organic farmers around Japan, at the time they all expressed content towards the passage of the law. It is interesting that the popularity of certified organic farming has not experienced signifigant growth since the passage of the law, despite the law getting unanimous approval in the senate and being praised by the farmers, at least according to Mr. Tsurunen.

In the end, it can be argued that the history of organic farming in Japan is surprisingly rich, especially when considering the current situation, where Japan lags behind the rest of the world in popularity of organic farming. An interesting aspect is the continuing popularity of the Fukuoka method worldwide, despite organic farming remaining a niche field in its country of origin. It was only relatively recently when the Japanese government for the first time showed any interest in organic farming and made efforts to promote it through legislation. The future of organic farming is therefore starting to look more promising.

2.5 Challenges and solutions of organic farming in Japan and around the world

2.5.1 Current situation of organic farming in Japan

Despite the passage of the “law of promoting organic agriculture”, the increase in agricultural land used for organic farming in the last 10 years has been much lower than in other comparable countries such as Finland and Italy (FiBL, 2021). This indicates that the law has not had a dramatic effect on the organic farming sector in Japan.

Consequently, the Japanese government has taken even more proactive stance towards organic farming. In 2022, they enacted the "Act to Promote Environmental Burden Reduction Activities for Establishment of Environmentally Harmonized Food System," aimed at supporting the "green food system strategy" of the Japanese government (USDA Foreign Agricultural Service, 2022). This approach incorporates specific objectives, including a targeted decrease of 10.6 percent in carbon dioxide emissions and a 20 percent reduction in the application of chemical fertilizers by the year 2030. Moreover, the ultimate goal of the strategy is to increase the portion of arable land used for organic

farming to 25% by 2050 (USDA, 2022). This goal is ambitious considering that, as mentioned earlier, the current portion of land used for organic farming in Japan is approximately 0.5%, even when non-certified organic farming is taken into consideration. However, unlike the Organic Farming Law of 2006 (Act on Promotion of Organic Agriculture, act 112, 2006), the new law appears to include more concrete steps towards promoting organic agriculture in Japan. As indicated in the report by the USDA Foreign Agricultural Service (2022), the Organic Farming Act of 2022 includes more subsidies than before for both farmers and local governments. Part of these subsidies would be directly paid to farmers based on the amount of land used for organic farming.

During the interview, Mr. Obaro expressed his satisfaction with this new strategy and law. He mentioned that as the law was enacted only a year prior to the interview, not much had yet occurred, but he believes that the organic farming "movement" will gradually gain traction. One of the notable comments made by Mr. Obaro was that, although as a board member of an organic farming lobbying organization he is obligated to say that the government could always do more, personally, he believes that the government is doing "the best they can." When asked about the government's ambitious goal of increasing the portion of land used for organic farming to 25% by 2050, Mr. Obaro explained that he was "cautiously optimistic." However, Mr. Obaro also shared his observation that in Japan, there is still a significant reluctance towards the JAS certification system. Based on his personal interactions with organic farmers, he noted that many farmers who do not have JAS certification are not interested in obtaining it either. According to Mr. Obaro, there is a prevailing perception among farmers that the certification process is both burdensome and expensive. In contrast, those farmers who have obtained JAS certification tend to view the process as relatively easy and do not share the same concerns as their uncertified counterparts. This viewpoint was supported by Mr. Tsurunen during his interview.

Mr. Tsurunen further explained that many Japanese farmers hold the belief that the Japanese climate necessitates the use of chemical fertilizers and pesticides, and transitioning to full organic farming practices would result in decreased farm output. Additionally, Japanese farmers consider the JAS certification process to be costly, as Mr. Obaro also highlighted. It is important to acknowledge that both Mr. Tsurunen and Mr. Obaro may have political motivations, with the former being a former senator as well as

the main advocate for the 2006 organic farming law and the latter being a member of a pro-organic farming lobbying organization.

The views expressed by the farmers to Mr. Tsurunen do have some validity. Studies have concluded that the yield from organic farms can be around 25% lower on average compared to yields from traditional farms (Alvarez, 2021). Therefore, their perspective is not solely a belief but is also grounded in some reality.

Currently, in Japan, the marketing of farmed products is often organized through cooperatives, somewhat resembling the system seen during the *teikei* era (Yuki et al., 2021). The popularity of cooperatives can be attributed to the relatively small size of farms in Japan. Cooperatives facilitate efficient product delivery to wholesalers and provide farmers with greater negotiating power through collective price negotiations (Yuki et al., 2021). One significant difference between the current system and the *teikei* method is the involvement of wholesale markets. While *teikei* involved direct delivery of products to consumers, modern practices typically entail initial delivery to a wholesale store. The smaller farm sizes necessitate the formation of collectives and may contribute to the reservations expressed by farmers towards organic farming, as becoming an organic farmer without the other cooperative members adopting organic practices could be perceived as an insurmountable challenge. Farmers rely on cooperatives for collective bargaining, given the low bargaining power of individual farmers in the Japanese retail market (Yuki et al., 2021).

2.5.2 Consumer attitudes towards organically farmed products in Japan

Although farmers' perspectives are crucial in shaping the popularity of organic farming, it is important to acknowledge the significant role of consumers. While this study primarily focuses on farmers, consumer attitudes are equally important for the growth of the organic farming market. Without market demand for organic products, government legislation alone cannot make organic farming a viable business option.

It is worth noting that organic products generally have higher prices compared to non-organic products (FAO, 2023), with a global average premium of 29-32% (Crowdera et al., 2015). According to a report commissioned by the USDA (2017), Japanese consumers are aware of the higher costs associated with organic products and many are

willing to pay a price premium of up to 20%-30%. However, in Japan, organic products are sold on average at a premium of 50% (USDA, 2017), which could explain consumer hesitation in purchasing them. Thus, while Japanese consumers may be willing to pay the global average premium of around 30% (Crowdera et al., 2015), the higher premiums in Japan may deter their purchase behavior. In contrast, countries like Finland have a larger market for organic products despite high price premiums, as indicated by the greater market size (FiBL, 2021). For example, some organic products like vegetables and fruits in Finland carry a price premium of up to 100% (Heinonen, 2023), yet over half of Finnish consumers still purchase organic products at least monthly (Pekkala, 2019).

These observations suggest that Japanese consumers may not value organic products at the same price level as Finnish consumers. This viewpoint is supported by a report from MAFF (2019), where over 80% of respondents considered organic products to be expensive. Additionally, an earlier observation by Mr. Kaneko in the 1970s, as mentioned earlier, noted that consumers were more concerned about price than food safety (Kaneko, 1994, p.58). This observation remains relevant today and suggests that consumer attitudes from that time may still influence purchasing decisions. However, it is important to remember that Mr. Kaneko's observation is anecdotal and should be treated as such.

According to a study titled "Interpretations and attitudes toward healthy eating among Japanese workers" (Akamatsu et al., 2005), Japanese workers interviewed for the study emphasized the importance of a nutritionally balanced diet and consuming plenty of vegetables for healthy eating. This strong interest in healthy eating among the Japanese population may contribute to Japan's impressive life expectancy, which stands at 84 years, making it one of the highest in the world (World Bank, 2023).

It is intriguing however that Japanese people, who are known for their longevity and who emphasize healthy and nutritious food, do not show significant interest in organic products, particularly when compared to other developed countries. Furthermore, this disinterest extends beyond organic products, as overall interest in food traceability in Japan appears to be low. According to a paper titled "Consumer Interest in Information Provided by Food Traceability Systems in Japan," Japan has a highly advanced food traceability system, yet the average consumer does not display much interest in it. For

instance, less than 6% of surveyed consumers had accessed fresh food traceability information (Shaosheng et al, 2014). However, it appears that Japanese people have at least some levels of knowledge about organic farming. According to the aforementioned report by the Japanese Ministry of Agriculture, Forestry and Fisheries, 90.9% of respondents to a questionnaire were at least somewhat familiar with the term "organic farming" (2019). Nevertheless, the same survey revealed that the majority of respondents were not familiar with the proper labeling of organic products. Similarly, the previously mentioned USDA report (2017) explains that only 5% of Japanese consumers understand the correct meaning of the term "organic."

A notable comparison to Japan in terms of consumer awareness can be seen in the case of Taiwan. In an article titled "The Effects of Organic Certification on Shoppers' Purchase Intention Formation in Taiwan: A Multi-Group Analysis of Structural Invariance" by Ming Liu (2021), is explained that organic certification was introduced in Taiwan in 2009, which is eight years later than in Japan. The article highlights that knowledge about organically certified products in Taiwan is relatively limited, and consumers hold negative views, perceiving such products as expensive and doubting the trustworthiness of the certification.

However, Liu suggests that consumers' interest in purchasing organically certified products tends to increase as their knowledge about the products expands. Additionally, many consumers expressed a desire for the government to promote certification more actively and provide public education about organic products.

Therefore, it can be argued that in addition to addressing farmers' perceptions, the Japanese government needs to consider the public perception of organic farming and the limited awareness of the JAS organic certification among the general population. One difficulty, that the Japanese government will undoubtedly face, is the issue of trust. One study aimed at examining the effects of information and prices of Ecologically Friendly Farming (EFF) products on consumer behavior in Japan supports this notion (Yang et al., 2020). According to Runan Yang, EFF products do not have as strict requirements as certified organic products. In the cultivation process a lesser number of chemical fertilizers and pesticides must be used, compared to regular products, but the requirements for JAS certified products are much stricter. It can be argued however that

the attitudes of customers towards these products could be reflected on organically farmed products as well. The study concluded that the most significant factor influencing consumer purchase decisions was the price, followed by the source of information. Interestingly, information about EFF cultivated products obtained from family and friends had a greater impact on consumer decision-making than information from the media. In other words, consumers who received no information on EFF products from their peers were more hesitant to purchase these products. This study suggests that despite media advertisements, the public tends to place more trust in the opinions of fellow consumers.

The public perception towards farmers themselves also carries importance. An article titled "Young Organic Farmers in Japan: Betting on Lifestyle, Locality, and Livelihood" (Rosenberg, 2017) explores the perceptions of organic farming in Japan. The paper introduces new organic farmers in their 30s and 40s as "Occupational Edge Workers," who are considered rebels and risk-takers in Japan. The article provides insights into the opinions and views of these farmers. It offers a comprehensive understanding on perspectives on organic farming in Japan, these perspectives seem to differ greatly when compared to other countries such as Finland. According to the interviewed farmers in the study, organic farming is regarded as a risky business with various uncertainties. Those who choose to farm organically must have motivation beyond mere profit. In contrast, in Finland, where organic farming is practiced on a larger scale, organic farms are actually more profitable than non-organic farms (Väre, 2021).

The aforementioned study on young organic farmers provides valuable insights into the perceptions and views on organic farming in Japan. However, this study will focus on a specific village and place more emphasis on the JAS certification, or more specifically, the lack thereof. While Rosenberg's study (2017) highlights that organic farming is viewed as a lifestyle choice and organic farmers as "rebels," it does not directly address organic certification, which is the main focus of this thesis. In the interviews conducted for this paper, farmers were asked about their decision to become organic farmers and their perspectives on the profitability of organic farming. I anticipate that their responses will align with the findings presented in Rosenberg's paper.

2.5.3 Noncertified organic farming around the world

This paper is by no means the first case study on non-certified organic farmers in a specific geographic area. An article titled "Smallholder farmers' engagement in non-certified organic farming: a case from Southern China" (Zhu et al., 2020) investigates non-certified organic farmers in the region of Southern China. The farms examined in the study are smallholder farms, similar to those in the village of Ogawa Machi. However, the sample size in the article is much larger than in this thesis, with over 300 farmers included. The article reveals that the farmers identified their primary motivation as the desire to farm organically to conserve land for future generations. These findings may relate to the findings of this paper as well. The farmers in Ogawa Machi could have similar motivations behind their decision to farm organically, but without certification.

Although the focus of this paper is on the case of Japanese organic farming and the JAS certification, it is worth noting that similar phenomena have been studied in other countries. For example, a study titled "To certify or not to certify? Separating the organic production and certification decisions" by Veldstra (2014) examines the situation in the United States, where a significant number of farmers practice organic farming without obtaining USDA (United States Department of Agriculture) organic certification. The study highlights that the main reasons for not pursuing certification are the perceived costs and complexity of the certification process. It is important to mention that the methodology used in this paper is a survey, while the present study utilizes a semi-structured interview approach. Furthermore, this paper focuses on a distinct geographical region. Nevertheless, it is anticipated that the findings of this study will align with those of Veldstra (2014), indicating that Japanese farmers may express similar perspectives on JAS organic certification as farmers in the US do towards USDA certification.

Another paper that studies the phenomena of non-certified organic farming called “Non-Certified Organic Agriculture: An Opportunity for Resource-Poor Farmers” (Cáceres, 2005) concludes that in Argentina the biggest obstacle for organic farmers to become certified are economic reasons. As one of the biggest obstacles mentioned by Veldstra (2014) are also economic reasons, it could be expected that this obstacle clearly prevalent in both United States and Argentina could be also a large issue in Japan as well.

One notable point in the study by Cáceres is that the leading country in the world when it comes to portion of land used for organic farming is Australia. The land used for organic agriculture in Australia was over 10 million hectares already in 2005. More recent statistics show that this land area has grown to 35.7 million hectares in 2021, which is almost ten times more than in Argentina where this number is at 3.7 million hectares (FiBL, 2021). The amount of land used for organic agriculture in Australia seems even more vast when compared to Japan, where this number was 11 000 hectares in the same year (FiBL, 2021).

What is interesting, however, is that in Australia, the subsidies awarder for any type of farming are second lowest amongst OECD (The Organization for Economic Co-operation and Development) countries (Australian Farm Institute, 2023). Subsidies are therefore not the factor that explains the lead of Australia when it comes to organic farming. Nevertheless, other aspects, such as population density, which is noticeably lower in Australia (3 per square km) when compared to Japan (346 per square km), could help to explain the difference (World Bank, 2023). As explained in the study by Veldstra (2014), the size of the farm could have an effect on the decision to at least apply for organic farming certification. In Australia the average size of the farm stood at a staggering 4 331 hectares, more than hundred times the average farm size of 2.99 hectares in in Japan (Australian Bureau of Statistics, 2023; MAFF, 2019). This disparity in farm sizes could play a a role in the drastic differences between these countries when it comes to organic farming and its popularity. As noted previously, the certification process in Japan can be costly, as the farm needs to have been practicing organic farming methods for two years prior to applying for certification (MAFF, 2023). Organic farms tend to have an average yield that is 25% lower than farms using synthetic pesticides and fertilizers (Alvarez, 2021). For smaller farms, this decrease in yield could be particularly challenging, as their products cannot be sold as organic during the two-year transition period, nor can they command premium prices. On the other hand, larger farms might be better positioned to absorb the productivity loss.

Although the case of Australia demonstrates that organic farming can become popular without subsidies, subsidies can still play an important role. According to FiBL (2021), when comparing the portion of land used for organic farming to the total farming land, six out of the top ten countries are in the European Union, and eight are in Europe. As

highlighted by Veldstra (2014) in his paper, it is more common for the European Union to provide subsidies to organic farmers compared to the United States. Therefore, it can be argued that subsidies can and do play a role in the transition to organic farming. As mentioned earlier, the new "green food systems strategy" act of 2022 includes subsidies for farmers who are converting to organic farming (USDA, 2022). However, according to MAFF (2023), subsidies for "environmentally friendly agriculture" were already being provided to farmers prior to the implementation of the new act. Nevertheless, a comparison between the "new subsidies" and the previous ones reveals a noticeable increase in the subsidy amounts. Under the old scheme, farmers received a direct payment of 12,000 yen per 10 acres, whereas the new act promises 120,000 yen per hectare. This means that under the old scheme, farmers were provided with 12,000 yen for every 2.5 hectares (MAFF 2, 2023; USDA Foreign Agricultural Service, 2022). Although there are several other subsidies available based on specific farming activities, it is evident that the subsidy for the most basic form of farming has significantly increased. This indicates that the government of Japan has adopted a more proactive approach towards environmentally friendly farming practices, including organic farming.

In summary, the government's perspective on organic farming in Japan has undergone changes in recent years. However, when compared to the global average in terms of land area, organic farming in Japan still remains a relatively niche field. There seems to be some degree of hesitancy towards the JAS certification process in Japan, although this phenomenon is not unique to Japan alone.

3 Methods and data

This chapter offers a comprehensive overview of the materials and methods utilized in the present study. It outlines the chosen research method and provides detailed explanations for why this specific method was selected to address the research questions at hand. By delving into the rationale behind the chosen method, this chapter aims to establish the validity and appropriateness of the research approach. Furthermore, this chapter will provide a thorough description of the interview process, including information on how and when the interviews were conducted.

3.1 Case study method

As all the farmers participating in the research are located in a small geographic area this research was conducted as a case study. Some of the characteristics of the case study method include a focus on interrelationships within “the context of a specific entity, such as an organization, event, phenomenon, or person” (Mills et al., 2010, p. xxxii). Case study is additionally well-suited to answer "how" and "why" questions in the context of the case's setting (Pamela et al., 2010). Essentially, this thesis will attempt to answer research questions that do not have a simple one-word answer within the case's context, making the case study method suitable for this situation.

As mentioned before, the chosen location for this case study is a small village named Ogawa Machi, where all the participating farmers reside. In addition to the farmers, two individuals who do not live in Ogawa Machi were also interviewed. However, their interviews were included for the purpose of providing context. Therefore, the village of Ogawa Machi serves as the contextual entity for this case study, aiming to investigate the relationships between the farmers living in Ogawa Machi, as well as their relationship with the government of Japan.

Furthermore, the study also considers the relationship between the farmers of Ogawa Machi and the people living in and around the village. The people of Ogawa Machi play the role of consumers of the products produced by the farmers.

3.2 Qualitative research

As stated by David Silverman in his book titled "Doing Qualitative Research" (2009), the choice of research method should be guided by the researcher's objectives rather than predetermined factors (p.10). Qualitative research is particularly suitable when the goal is to explore individuals' life histories and behaviors, as suggested by Silverman. The primary aim of qualitative research is to understand why individuals have behaved in certain ways and made specific decisions (Sutton et al., 2015).

In this study, the objective is to uncover the reasons behind farmers' decisions, which requires delving into their personal experiences and histories. Therefore, qualitative research is the most appropriate method for this paper. Since the decision to transition from non-organic farming to organic farming is made by the farmers themselves, conducting qualitative interviews will allow for a deeper understanding of their rationale and the choice to forgo organic certification.

It is important to acknowledge that in qualitative research, it is practically impossible for the researcher to completely avoid biases, as having expectations and prior opinions is part of human nature. As explained by Jane Sutton and Zubin Austin in their paper, it is more important to acknowledge and articulate the researcher's position and subjectivities rather than conceal them (2015). Hence, it is important to note that my personal relationships with some of the interviewed individuals, such as Tsurunen Marutei and Mr. Kaneko's son, increase the risk of bias as a researcher. However, in this thesis, this factor is taken into consideration as is customary in qualitative research. As a researcher I always considered the possibility of a bias when analyzing answers from these subjects with whom I have personal relationship with.

3.3 Semi structured interviews

Given the complexity of the answers sought in the interviews, which are likely to encompass a range of socioeconomic factors, a semi-structured interview approach will be employed as the preferred method. William Adams suggests that semi-structured interviews are particularly suitable in scenarios requiring open-ended questions and where responses can potentially reveal unforeseen perspectives. (2015, p.494). Adams further explains that while the researcher should be knowledgeable about the topic, the

semi-structured format enables the researcher to learn more during the interviews (2015, p.494).

In addition, a semi structured interview allows the researcher to ask follow-up questions and learn during the research process. It is also important to note that as this research is conducted as a case study in a relatively small village, obtaining a large sample group would be unlikely. Therefore, it is crucial to delve deeply into the views and experiences of each participant.

The semi-structured interview questions designed for the farmers in this study were intentionally crafted to provide them with the flexibility to respond in a comprehensive manner. However, as the researcher, I also ensured that the farmers had the opportunity to elaborate on their answers whenever necessary. Throughout each phase of the interview, the farmers were specifically prompted to provide reasoning for their responses. For instance, when discussing topics such as the JAS certification or the absence thereof, the farmers were asked to explain their rationale for not pursuing JAS certification. This approach allowed for a deeper exploration of their perspectives and provided valuable insights into their decision-making processes.

Furthermore, as explained later in this paper, the open-ended nature of the questions allowed me, as a researcher, to learn more about the topic and broaden my own understanding of the facts surrounding JAS certification. Therefore, the form proved its worth, as semi-structured interviews allow the researcher to learn more about the topic, and prior knowledge of the topic is not required.

3.4 Thematic Analysis

The chosen method of data analysis in this thesis is Thematic analysis. As stated in the article "Thematic Analysis" by Clarke and Braun (2017), the objective of thematic analysis is to identify, analyze, and interpret patterns of meaning, referred to as "themes," within qualitative data.

Given that the aim of this study is to uncover the reasons behind decisions based on materials obtained from semi-structured interviews, the chosen analysis tool must be capable of identifying recurring patterns in qualitative data. Thematic analysis is

particularly suitable for this study due to its flexibility. According to Clarke and Braun, thematic analysis is well-suited for discovering patterns in the perspectives and experiences reflected in interview data. The experiences and viewpoints of the farmers in Ogawa Machi are precisely what this study aims to explore in order to address the research questions.

In practice, the first step involved transcribing and translating the interview responses of the farmers into written format. It is important to note that all interviews were conducted with the participants' consent, and recordings were made for accuracy. Since most of the interviews were conducted in Japanese, it was necessary to translate the responses into English. During this translation process, I found that documenting the data helped me become more familiar with the material as a researcher. Typically, qualitative interviews generate a substantial amount of data initially in audio format, which needs to be transcribed verbatim (Sutton et al., 2015).

In the analysis process of the recorded interviews from Ogawa Machi, there were several hours of recorded interviews that had to be transcribed word for word. Initially, the recordings were transcribed in written format in Japanese. The transcribed interviews in Japanese were then translated into English. At times, I required additional assistance in the translation process due to my own limitations in Japanese language skills. However, I was able to understand most of the interviews without external help. The process of transcribing and translating took several weeks, which is typical since the analysis of 45 minutes of interview in audio format can take approximately 8 hours (Sutton et al., 2015).

Following the initial transcription and translation, the data reduction phase was conducted according to the methodological approach of thematic analysis. In this phase, sentences, and statements relevant to the desired research questions were identified and highlighted (Alhojailan, 2012). These noteworthy remarks made by the farmers served as reference points for comparison and analysis of the interview data from other participants. However, it is crucial to revisit the complete dataset to ensure that no important information was overlooked during the data reduction process (Alhojailan, 2012). Hence, I thoroughly reviewed the entire dataset multiple times.

Subsequently, the identified remarks were further categorized and organized into themes, representing meaningful patterns within the data. This process involved careful analysis and interpretation to ensure the reliability and validity of the themes. It is worth noting that in accordance with Alhojailan (2012), multiple readings of the dataset were conducted to refine and validate the themes discovered during the analysis process.

Finally, the themes derived from the thematic analysis were presented in this thesis, reflecting the patterns and insights obtained from the farmers' perspectives and experiences (Alhojailan, 2012).

3.5 Interview process

3.5.1 Preparation for the interviews

In order to gain a comprehensive understanding of the situation in Ogawa Machi and to obtain a clear impression of the farmers' opinions and views, the interviews were conducted in person in Japan. While it would have been possible to conduct the interviews remotely, using a video connection would not have allowed for a full understanding of the farmers' reactions and nuances. To facilitate this, I applied for an exchange semester at Sophia University in Tokyo, which is located relatively close to Ogawa Machi.

I drafted the interview questions even before the exchange semester, aiming to cover all possible angles related to the research questions. A total of 20 questions were prepared, and I also created an information sheet outlining the participants' rights. Later on, with the assistance of a Japanese language teacher at Sophia University, I translated both the questions and the information sheet into Japanese. Since a semi-structured interview approach was chosen as the research method, I planned to ask follow-up questions to further explore the farmers' perspectives.

During my exchange semester in Japan, I conducted interviews as part of this research project. To initiate the process of finding farmers to interview, I reached out to Mr. Kaneko, with whom I had previous contact. I hoped he could also introduce me to other farmers. Additionally, Mr. Kaneko spoke some English. Fortunately, he responded positively to my inquiry, and we agreed to commence the interview process in late

October 2022, one month after my arrival in Japan. This allowed me some time to acclimate to life in Japan before beginning the interviews.

However, shortly after my arrival, an unfortunate event occurred: Mr. Kaneko passed away. This sorrowful situation resulted in the loss of the most important planned source for this thesis. I had hoped that Mr. Kaneko's interview could shed light on the case of Ogawa Machi and provide important context for this thesis. As mentioned before, as a solution, a book written by Mr. Kaneko is used in this thesis as a substitute for an interview. The book is also supplemented by an interview that his son kindly provided.

Due to the unfortunate passing of Mr. Kaneko, I had to restart the process of finding farmers to interview. Fortunately, I had personal connections with other individuals who could assist me, most notably a former politician in Japan, Mr. Tsurunen Marutei, whom I also interviewed for this thesis. Additionally, I was able to contact Mr. Kaneko's son, whom I had met in 2015 while working at Shimosato Farm. However, out of respect for the passing of his father, I decided not to contact Mr. Kaneko's son immediately and instead reached out to him later when I had already been in Japan for a while.

Luckily, Mr. Tsurunen had close personal relationships with several organic farmers and organic farming organizations, and he agreed to help me find farmers to interview. He also agreed to be interviewed for this thesis. Through his assistance, I contacted a non-governmental organization (NGO) called "Zenyukyo" The organization's director, Mr. Obaro Sotaro, responded positively to my inquiry and even agreed to a recorded interview. Mr. Obaro was fluent in English which provided an excellent starting point for the interviews especially as I was not confident with my Japanese abilities in the beginning of my exchange studies. During the interview, he explained that the main purpose of the organization was to promote organic farming in Japan. The organization had approximately 30 organic farming collectives as members, comprising a total of around 400-500 organic farmers. He had discussed with many of these farmers personally and was able to explain what these farmers had given as reasons for wanting to farm organically. Mr. Obaro’s previous line of work had also been very closely related to JAS certification, so he was able to give information regarding the process.

Mr. Obaro arranged interviews with organic farmers, all of whom were located in Ogawa-Machi, Saitama, near Tokyo. He mentioned that organic farmers were typically located far from Tokyo, primarily on the island of Hokkaido, making the farmers of Ogawa Machi a rare exception in close proximity to the city. The possibility of arranging interviews through video calls was also discussed. However, since the aim of this research was always to conduct interviews in person, it was agreed that face-to-face meetings would be the preferred method.

The interview conducted with Mr. Obaro yielded valuable information beyond the locations of the organic farmers. Particularly noteworthy was Mr. Obaro's explanation that no farmer in the village of Ogawa Machi holds JAS certification. Initially, I had presumed that while most farmers might not possess this certification, there would still be some who did, allowing for a broader perspective on the situation through interviews with certified farmers. However, according to Mr. Obaro, he was unaware of any JAS certified farmers in proximity to Tokyo. This revelation changed some of the plans I initially had, however it also proved the benefits of semi structured interviews as they allow the researcher to learn more on the subject. My interview with Mr. Obaro certainly offered new and somewhat unexpected information.

The interviews were conducted between November 2022 and January 2023, involving a total of five organic farmers from Ogawa Machi. These farmers represented four different farms, and at one of the farms, both owners wished to be interviewed separately as individuals. Prior to the interviews, all participating farmers were informed about their rights as research subjects, including their ability to withdraw their interviews from this thesis at any time by contacting the researcher. Additionally, they were given the option to choose whether they wanted to be named or remain anonymous in the paper. It is noteworthy that all farmers expressed their willingness to be identified by their names in this study.

However, even when research participants provide consent to be identified by name, it is the responsibility of the researcher to make the final decision considering the safety and confidentiality of the data. In the case of this thesis, the data can be argued to have a low level of confidentiality, and the research does not involve particularly sensitive information about the participants. Therefore, as the researcher, I concluded that

including the names of the participants was feasible. Furthermore, I believe that using the participants' names in this research enhances the validity of the findings by demonstrating the farmers' willingness to engage in potential follow-up questions or further research regarding their perspectives.

3.5.2 Conducting the interviews

In practice, the process of the interviews started on the 27th of November 2022 when I visited the village of Ogawa Machi together with Mr. Obaro. With Mr. Obaro, we visited two farms where I conducted interviews. The first of these farms was Shimosato Farm, where I had worked in 2015. At Shimosato, I interviewed the son of the farm owner, Mr. Kaneko, who had passed away just over one month prior. As an interesting anecdote, on the second farm I visited on that day, called Kaze no ka, a television crew from a prefectural television station was filming a program on the rising popularity of organic farming. Naturally, making any sort of conclusion from an individual situation such as this one would not be possible, but I believe that this case was worth mentioning as it shows that there clearly exists some interest towards organic farming in Japan.

The two other farms I visited in January individually and without Mr. Obaro accompanying me. Mr. Takahashi Tomohiro's farm on the 20th of January 2023 and Ms. Akahori Kaoris farm on the 29th of January. Each interview provided valuable insights into the farmers' motivations and decision-making processes. In addition to the interviews Mr. Kaneko's book "A farm with a future; living with the blessings of soil and sun" (1994) will be used to augment the interview with Mr. Kaneko's son as his son recommended the book as an answer for some of the questions during his interview. Mr. Obaro happened to have a copy of the book and was kind enough to give it to me. I also received a Japanese language book written by Mr. Kaneko titled "Shimosato, community development with Mr. Kaneko" (Kaneko, 2015). However, this book is more of a guidebook for community development and contains only a few actual opinions and views of Mr. Kaneko himself. The book is used as supporting material and has some more recent remarks from Mr. Kaneko as it was published in 2015. As noted before, it was my wish to interview Mr. Kaneko as I hoped that he could explain to me some observations I had made during my work at Shimosato farm and provide insights into the case of Ogawa Machi.

The usage of the book as a source resulted in some inherent difficulties when comparing it to interviews. Most notably, interviews allow the researcher to ask follow-up questions, while in the book, the researcher has to rely on the provided information and make assumptions without the possibility to ask clarifying questions. However, Mr. Kaneko's book does cover the topic of motivation for becoming an organic farmer relatively well. When it comes to the JAS certification, though, the book could not provide any answers, as it was written much earlier when the certification did not even exist. The other book written by Mr. Kaneko in 2015 did not cover the topic of JAS certification either, which was unfortunate as it was written, when the certification had existed for some time. In this regard, Mr. Kaneko's son provided valuable additional information regarding his own beliefs and the beliefs of his father. Naturally, the interview with Mr. Kaneko's son, regarding his father's views, should be considered second-hand information, but given the circumstances, it was the best source available.

Following the completion of the interviews, I conducted an analysis of the collected data. Utilizing a thematic analysis approach (Clarke et al., 2017), I identified recurring themes and patterns within the interview responses. The analysis revealed a range of reasons behind the farmers' decisions to engage in organic farming, including environmental concerns, personal health, and philosophical beliefs. Additionally, socioeconomic factors such as market demand and government subsidies emerged as influential factors. The analysis shed light on the complex interplay between individual choices and broader socio-economic contexts.

In summary, despite initial obstacles and unfortunate circumstances, the interview process for this research project was successfully completed. The subsequent analysis of the collected data provided valuable insights into the motivations of organic farmers in Ogawa Machi, contributing to a deeper understanding of their decision-making processes.

4 Analysis

This chapter aims to present the findings derived from the analysis of the interview data. The data analysis process utilized thematic analysis as the method of analysis. The chapter is divided into three parts. The first part introduces the research participants through a table, while the remaining two parts analyze the farmers' responses to the research questions, which were introduced in the "Research Questions" chapter. The research questions addressed in this chapter are as follows:

1. What factors influenced the decision of organic farmers in Ogawa Machi to adopt organic farming practices?
2. What are the reasons for the absence of JAS organic farming certification among farmers in Ogawa Machi?

4.1 Research participants

All five farmers who took part in the research lived in the village of Ogawa Machi. The participants were willing to be named in this paper and in the following table each one is introduced. In addition, as mentioned before, Mr. Kaneko Yoshinori’s opinions and views have been derived from his book as well as a community development guidebook that he wrote. These opinions and views were then augmented with the interview of his son. As can be seen from the table, participants were of varying ages. The following table will introduce the participants. None of the participants possess the JAS organic certification, but self-identified as organic farmers. When asked to clarify their own views on the requirements of being classified as being organic farmers, all the farmers agreed that the most important requirement is to not use any chemical pesticides. Therefore, the farmers who participated in this research fulfilled at least the most important criterion required by MAFF. Although not discussed during the interviews, it is highly unlikely that the farmers would use genetically modified crops (GMO) either. The reason for not having JAS certification, as discussed later, is therefore not the inability to fulfil the most important criterion required by MAFF.

Name of the farm	Name of the farmer(s)	Age of the person(s)	Size of the farm (approx. in hectares)
Sun farm Takahashi	Takahashi Tomohiro	40	2
Daikon farm	Akahori Kaori	38	5
Kaze no oka farm	Tashita[6] Ryuichi and Mieko	62, 61	6.5
Shimosato farm	Kaneko Yoshinori(posthumously) and his son	Kaneko Yoshinori was 74 and his son 50	10

As can be seen from the table above, the farmers were of ages 38 to 62, and their farms were relatively small when compared to the average farm size around the world, such as in Finland or USA where the average sizes of the farms were 52 hectares and 180 hectares respectively (Luonnonvarakeskus, 2022;USDA, 2023). However when compared to the average size in Japan of 2.99 hectares (MAFF 2, 2019), it could be said that the farmers interviewed for this study represent this average relatively well, with Mr. Takahashi's farm being smaller than the average and the other farms being somewhat larger. All the farmers interviewed farmed rice which is not surprising considering that in Japan most farmers receive at least part of their income from cultivating rice (Hisao, Rice Sector Policies in Japan, 2003). In addition, all the farmers reported that they farmed several other crops, for example in Shimosato farm some 80 different kinds of crops are farmed and at Kaze no ka this number was 60.

[6] Tashita, the the romanization used in the website of Kaze no oka farm

4.2 Reasons for becoming organic farmers

In this section the reasonings for becoming organic farmers will be analyzed using the thematic analysis method as explained before. Mr. Kaneko's book is used to augment this part as his son recommended the usage of his book instead of his interview as an answer to this question. Each farmer was asked to explain why they had become organic farmers. In the end, one theme that did not come out in any of the interviews nor Mr. Kaneko's book was money. Therefore, no farmer saw money as the most important reason for starting to farm organically. Mr. Tashita Ryichi and Ms. Tashita Mieko gave practically identical reasons for becoming organic farmers. As they are partners this was an anticipated outcome as they made the decision to start farming organically together. The following table will show the themes that emerged in each interview.

Name of the farmer(s)	**Worry for environmental issues**	**Self-sufficiency**	**Health reasons**	**Money**
Takahashi Tomohiro	Yes	No	No	No
Akahori Kaori	Yes	Yes	No	No
Tashita Ryuichi Tashita Mieko	Yes	Yes	No	No
Kaneko Yoshinori and his son	Yes	Yes	Yes	No

During the analysis process, several themes emerged as reasons for farmers to choose organic farming over non-organic practices. These themes revolved around environmental concerns, the desire for self-reliance or self-sufficiency, and considerations related to health. The most prominent and frequently mentioned reason for opting for organic farming was the environment. All farmers expressed varying degrees of worry and concern about environmental issues, and this played a significant role in their decision to embrace organic practices.

Mr. Takahashi stood out in his deep concern for environmental sustainability and his aspiration to lead a lifestyle that minimizes the burden on the ecosystem. When asked about the most important reason for becoming an organic farmer, he responded, "Well, it (my decision) was triggered by environmental issues. I wanted to live a lifestyle that is not burdensome to the environment"[7]. The answer clearly demonstrated his reasoning for his decision. He further explained that organic farming was the way he believed he could achieve his desire for an environmentally friendly lifestyle.

Ms. Akahori also mentioned concern for environmental issues, but also mentioned that her mother was an inspiration for her as well as. When asked about the reason for farming organically she answered: “Well, the story is long. When I was a student, my mother was running a vegetable set at our home. She was the one who inspired me. I was very interested in environmental issues.”[8] She continued explained that her mother´s passion regarding environmental concerns affected her greatly.

Another significant factor was the farmers' pursuit of self-sufficiency. Three out of four farmers highlighted the importance of being able to sustain themselves solely on what their farms produce. In his interview, Tashita Ryuichi shared his dream of achieving self-reliance through his farm, aiming to eliminate the need for unnecessary external purchases. He believed that organic farming aligned with this vision, as organic farmers produce everything they need, including fertilizers, without relying on external inputs such as chemical fertilizers and pesticides. Similarly, Mr. Kaneko Yoshinori advocated

[7] The interview of Mr. Takahashi was conducted in Japanese and translated to English by me
[8] The interview of Ms. Akahori was also conducted in Japanese and translated to English by me.

for organic farming as a means for farmers to attain self-reliance, emphasizing the elimination of externally produced pesticides and fertilizers (Kaneko, 1994).

While health reasons were less frequently mentioned, Mr. Kaneko emphasized them in his book as a partial motivation for embracing organic farming. He consistently highlighted the health benefits associated with organic practices and expressed his belief that chemical pesticides and fertilizers can have adverse effects on a person's well-being. In his book, he made a striking statement: "Pesticides are poisons. Some, often mistakenly believed to be 'safe,' are actually the same chemicals used in the lethal poison gas in World War 1" (1994, p.20). This belief clearly demonstrates his health-related motivations he had for transitioning to organic farming methods. In his book “Shimosato, community development with Mr. Kaneko” (2015), he also explains that environmental and health issues stemming from pesticides are a major issue that are a deep cause for concern (Kaneko, 2015, p.3).

It can also be noted here, that Mr. Obaro Sotaro in his interview explained that several farmers who he personally knew had started to farm organically because of health reasons. He was also more than happy to tell stories, that according to him were actual real-life stories, of farmers facing health issues, such as allergies, and then having these issues eased significantly by starting to eat organic foods. While I had no reason to doubt that the farmers and their experiences were real, it would be impossible to verify their authenticity.

No farmer mentioned money as a motivation during the course of answering this question on the motivation for farming organically. However, all farmers were asked specifically what their opinion on the profitability of organic farming is when compared to non-organic farming. As a note, most farmers expressed hesitation with answering this question, however all of them provided an answer in the end. For example, Mr. Tashita Ryuichi explained that in the case of Ogawa Machi, some organic farmers might actually be more profitable than non-organic farmers. Nonetheless, according to him, organic farming is generally more labor intensive, and this makes attaining profit difficult, even with the higher profit margins that organically farmed products can attain.

The farmers were also asked about training programs regarding organic farming and, more specifically, how they themselves had come to learn about organic farming practices. The influence of Shimosato farm once again showed up. In fact, Mr. Kaneko's son stated as much: “In this farm, there are training programs, and most (organic) farmers in Ogawa Machi have trained here.” This statement was confirmed by other farmers as well, who mentioned that they had indeed trained at Shimosato farm under Mr. Kaneko's guidance at some point. For this part, Mr. Kaneko's book was important as it explained how Mr. Kaneko himself had come to learn organic farming methods. In his book, Mr. Kaneko explains that the methods were mostly learned through experimentation at a “self-sufficient” farm (Kaneko, 1994, p.50). He did also travel abroad to countries such as Indonesia to learn organic farming methods but there, he also saw the “terrible consequences of farming monoculture” (Kaneko, 1994, p.52). Mr. Kaneko further elaborates that his experiments at his farm often failed, but failure was a necessary part of the learning process. In the end, Mr. Kaneko seems to have learned the organic farming methods mostly by himself through experimentation. He has also been open to teaching his methods to others, as stated by the other farmers interviewed.

In summary, the primary reasons that emerged from the interviews for farmers choosing organic farming over non-organic methods were environmental concerns, the pursuit of self-sufficiency, and, to a lesser extent, considerations related to health. These factors collectively shed light on the motivations behind the farmers' decision-making processes.

4.3 Reasons for not having JAS certification

As explained before, no farmer in Ogawa Machi has a certification for organic farming. Therefore, no farmer interviewed for this thesis has this certification either. All the farmers interviewed were asked firstly if they were aware of the JAS organic mark and if they had ever considered applying for the certification. In order to discover if the farmers were truly aware of the mark, the farmers were shown a picture of the symbol and were asked to explain its meaning. All farmers correctly explained what the meaning and purpose of the JAS organic farming certification was. In this part Mr. Tashita Ryuichi and Ms. Tashita Mieko of Kaze no Oka farm were interviewed separately as they had slightly differing views on the reasoning behind not having the certification. Mr. Kaneko Yoshinori’s son was able to explain reasonings for his father not having the certification,

therefore the book was not used. In any case the book was written in the year 1994, which predates the introduction of the JAS organic certification. As in the earlier section, the following table will showcase the themes that emerged in the interviews of the farmers.

Name of the farmer(s)	Bureaucracy	Monetary cost	Certification is unnecessary	Non-sensible requirements
Takahashi Tomohiro	No	No	Yes	No
Akahori Kaori	Yes	Yes	Yes	No
Tashita Ryuichi	Yes	Yes	Yes	Yes
Kaneko Yoshinori and his son	No	No	Yes	No
Tashita Mieko	Yes	No	Yes	Yes

One theme that emerged in every interview was the view that the JAS certification was considered unnecessary. Although the farmers had slightly different perspectives on why the certification was unnecessary, most of them mentioned the case of Ogawa Machi as a significant factor. For instance, Kaneko Yoshinori's son mentioned that in Ogawa Machi, consumers are in close proximity to the farms and are familiar with them. Therefore, applying for certification is unnecessary as consumers already know which farms are organic and which are not. This view was also reinforced by Mr. Takahashi Tomohiro who has considered applying for the JAS certification, however Mr. Takahashi concluded that at least currently there is no need for the certification. His farm supplies goods to

restaurants and individual households. According to him there really is no need for the certification as he can always explain personally to the buyers what kinds of methods were used in the process of growing the products and even though his farm does not have the certification, these buyers still buy his products, nonetheless. Ms. Tashita Mieko also echoed this sentiment in her comment: " In Ogawa Machi, being an organic farmer is a declaration. Even if you do not have a JAS mark, you can still communicate with customers and inform them that you are farming using organic methods." Her perspective effectively encapsulates the situation in Ogawa Machi, and her response encompasses points expressed by all the farmers in various ways.

It is however interesting to note that in the comment of Ms. Tashita as well as in some other comments made by farmers, there seems to be a theme of not being familiar with the JAS certification process. This view specifically came out in the part where the farmers were asked about their knowledge of the certification process. Some, such as Ms. Tashita, who stated that: “I don't know too much about the JAS certification process, but it is very strict.” Also Mr. Takahashi simply said that “Well, I don't really know the details of the obtaining process, but I believe for a small-scale farm it is not necessary.” The lack of knowledge was not universal, however. Mr. Kaneko’s son explained that: “In the university where I studied, we did learn about the JAS certification and the process of obtaining it”. There does however seem to be some lack in the knowledge regarding the certification process.

The farmers were informed about some of the requirements of JAS certification, such as annual inspections and the prohibition of using chemical pesticides and fertilizers for the past two years. They were then asked to share their opinions on these requirements. Overall, the farmers seemed to agree that these requirements were sensible. For example, Mr. Takahashi commented, "Well, I think it's natural to have that requirement. It's for safety reasons." He further explained that he believed the JAS mark and its requirements were necessary to demonstrate that a farmer is genuinely practicing organic farming.

Still not all farmers expressed such positivity towards the requirements. Mr. Tashita Ryuichi, for instance, found the requirement nonsensical and felt that it demonstrated a lack of consideration for the practical experiences of farmers. He elaborated by saying that the requirement of two years of organic farming prior to certification did not align

with real-life situations. As he often leases fields from other farmers, it becomes challenging for him to fulfill this requirement. He elaborated, saying, "If I lease a field that has been previously treated with pesticides or chemical fertilizers, a certain period of time is needed for the effects to dissipate. Two years for JAS certification seems quite long for agricultural land in Japan."

Interestingly, Mr. Kaneko Yoshinori's son during the interview explained that in Ogawa Machi a certification of some kind is currently in development. He unfortunately could not tell much about this local certification, but explained that in his opinion this certification could actually be more practical in the case of Ogawa Machi. Mr. Obaro also confirmed that indeed Ogawa Machi as well as some other areas in Japan have considered implementing a certificate of their own. It is likely that this process is not yet too far developed, but nevertheless deserves to be mentioned.

Other themes that emerged during the interview process were monetary cost and bureaucracy. Monetary costs were mentioned in two of the interviews. For example, when asked about the lack of JAS certification, Ms. Akahori stated, "The reason is because it is expensive. It is too expensive. We cultivate around 40 different vegetables, and it costs 100,000[9] yen per item per year. So, for those 40 items, it would be 4 million yen[10]." Mr. Tashita also highlighted monetary costs in his response, stating, "One issue is that it costs too much money. For farmers who grow multiple varieties of vegetables like a household, obtaining JAS certification becomes difficult because it involves a lot of paperwork and tasks."

This theme of monetary cost almost tied with the mention of bureaucracy in its frequency. Both Mr. Tashita and Ms. Akahori pointed out the necessity of applying for certification for all crops grown by the farmer. As mentioned earlier, this makes the process costly and bureaucratic. Out of the five farmers interviewed, three expressed that the complexity of the certification process was a major reason for not applying. Mr. Tashita Ryuichi clearly explained in his previous answer that bureaucracy was a significant obstacle. When asked to clarify, he mentioned that as his farm cultivated over 60 different fruits and vegetables, it would require an enormous amount of paperwork to

[9] 100 000 yen equals to 629,70 euros in 14.08.2023.
[10] 4 million yen equals to 25 197,12 euros in 14.08.2023.

certify the entire produce. However, he noted that if he were to farm only a couple of different crops, the situation could be completely different. The focus on fewer crops was also mentioned by Mr. Kaneko's son when asked about the profitability of organic farming. He responded, "Interesting philosophical question. At Shimosato, we don't really think about that. We have 80 different vegetables because we want to avoid 'monoculture.' However, it could be more profitable[11]." The answer provided by Mr. Kaneko's son was not directly related to the JAS certification, but nevertheless connects to the decision of the farmers to farm several different crops rather than fewer.

Lastly, two farmers mentioned nonsensible requirements. It is important to note that both farmers who mentioned these requirements were the couple who ran Kaze no ka farm together. However, both farmers were interviewed separately and the examples they gave were completely different. Therefore, they were included in the analysis. Ms. Tashita Mieko brought up the case of biodegradable mulch, which JAS certification does not allow to be used. In her opinion, this requirement was nonsensical and exemplified the fact that JAS certification is not designed with the farmers' practical experiences in mind. As mentioned earlier, Mr. Tashita Ryuichi also brought up the case of not taking into consideration the possibility that a farmer might lease a field, which has not been used for organic farming in the past two years.

In addition, all farmers were asked about the potential impact of JAS-certified farmers receiving higher subsidies compared to non-certified farmers on their decision-making process. All the farmers reported receiving some amount of subsidies, either from the local government or the government of Japan. Although the farmers were surprisingly open about discussing the exact amount of subsidies they received, these subsidies are already awarded to all farmers in Japan and are not relevant to this thesis, so they are not disclosed.

Regarding the potential additional subsidies based on certification, the farmers generally agreed that the current subsidy scheme does not have a significant influence on their decision-making, indicating that the current subsidy level has a negligible effect. Additionally, several farmers pointed out that money was not a deciding factor for them.

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[11] The interview with Mr. Kaneko's son was primarily conducted in English, with occasional use of Japanese to clarify certain answers.

Most notably, Mr. Kaneko's son answered, "Yes, I know that we could get more by applying for certification. But you don't really do these things for money." His answer succinctly expresses the non-financial motivations of the farmers. However, some farmers did acknowledge that a significant increase in subsidies could potentially impact their decision-making.

The farmers were also asked about their views on the future of organic farming in Japan. Interestingly, all farmers were aware of the new law set in 2022, as mentioned earlier, and the subsequent goal set by the Japanese government to have 25% of farmers practicing organic farming by 2050. Several of the farmers were eager to discuss the potential effects of the law and expressed varying opinions about the ambitious goal set for 2050.

For example, when asked about the future of organic farming in Japan, Mr. Tashita Ryuichi expressed some doubt regarding the goal in his response: "It seems difficult. The government has set five goals by 2050, but I wonder if the number of organic farmers will really increase to that extent, and even if farmers increase, how many people will actually buy organic agricultural products?" However, not all opinions were as negative. Mr. Takahashi, for instance, acknowledged that Japan may be lagging on a global scale but believed that the goal could still be achieved. He stated, "The government has set a goal to make 25% of the country's agriculture organic by a certain year (2050). It's quite late on a global scale, but still, the importance is there. It's important that the country recognizes and aims for it. It's significant progress[12]". Thus, while the farmers expressed some doubts regarding the expansion of organic farming in Japan, not all opinions were entirely negative.

In conclusion, it would seem that the most pertinent reason for these farmers to not have the JAS certification is that these farmers do not consider it necessary to obtain it. Bureaucracy seems to be an important factor as well. Money was mentioned by some of the farmers. Nonsensible requirements were only mentioned by two farmers of the same

[12] Interview of Mr. Takahashi was conducted in Japanese and translated to English by me

farm, so for this thesis they should not be considered a common reason, but it provides an interesting addition to the discussion.

Finally, it is important to note that the reasons mentioned above were stated by the farmers during the interviews. It is possible that the farmers have additional reasons for not applying for the JAS organic certification. However, these reasons provide insights into why these farmers have made the decision to forgo certification.

5 Discussion

5.1 Discussion of emerged themes

In the analysis section of this thesis, the results were introduced. Yet, it is important to delve into the discussion of these findings and their potential implications. This section will walk through the themes that emerged during the analysis process, as well as the themes that were expected to emerge but did not.

5.1.1 Ideological motivations

When it comes to the reasoning of the interviewed farmers for becoming organic farmers, it appears that they have embraced organic farming driven by ideological motivations rather than financial considerations. Environmental reasons emerged as the most significant and relevant factor for the farmers in Ogawa Machi. When asked about the profitability of organic farming, most farmers seemed hesitant to provide a direct answer. Nevertheless, a recurring theme in the interviews was that the farmers had opted to cultivate a diverse range of crops rather than narrowing down to a smaller selection. As Mr. Tashita Ryuichi mentioned, concentrating on fewer crops could potentially make applying for JAS certification a more feasible choice. However, neither he nor the other farmers expressed a desire to pursue this approach.

Additionally, Mr. Kaneko's son's response regarding the deliberate avoidance of "monoculture" or concentration on fewer crops suggests an ideological rationale rather than a profit-driven decision. In fact, as mentioned earlier all the interviewed farmers cultivated multiple types of crops, indicating their awareness that this decision may not be the most profitable but is rooted more in ideological considerations.

Monoculture farming, as mentioned by Mr. Kaneko's son, refers to the practice where a farmer cultivates only a few or sometimes just one crop. On a global scale monoculture farming has been the most popular and profitable form of farming. It has been perceived as more efficient and less labor-intensive when compared to multi-crop farming (Horizon, 2021). This aligns with the statements made by some of the farmers in the interviews, as they mentioned that multi-crop farming, practiced by the farmers of Ogawa Machi, requires more labor and is therefore costlier.

Still, monoculture has negative aspects. For instance, it can lead to significant soil erosion and degradation when there is little or no crop rotation (Horizon, 2021). In contrast, organic farming practices incorporate crop rotation, which has been proven to mitigate the degrading impact of farming on the soil (Bai et al., 2018). Therefore, it is natural that the interviewed farmers, who expressed great concern for environmental issues, would prefer to avoid monocultural farming.

A great example illustrating the practical application of crop rotation is my personal observation during my time working at Shimosato farm in 2015. I witnessed a potato field that was harvested being subsequently flooded with water and transformed into a rice paddy. I was informed that this practice exemplified crop rotation, which involves regularly switching the crops grown to prevent soil erosion. Later, I discovered that crop rotation is an integral part of organic farming.

5.1.2 Health effects as a motivation

One notable theme that was expected but did not emerge from the interviews was health reasons. As mentioned in the analysis section, during the interview Mr. Obaro explained that in his view, one of the most common reasons for farmers to start farming organically is health related. The examples and stories he provided did paint a picture of health reasons being important. As none of the farmers interviewed mentioned health reasons as a significant factor in their decision-making process, it is difficult to discuss this potential motivator in this thesis.

Nonetheless as mentioned earlier, Mr. Kaneko Yoshinori's book (1994) does mention positive health effects of organic products on several occasions and his personal belief was that chemical fertilizers can have degrading health effects. It is also worth noting that Mr. Obaro Sotaro, being affiliated with an organization of approximately 400-500 organic farmers, has personal connections with many farmers, as confirmed during the interview. Therefore, a larger sample size might have led to the emergence of this theme during the data analysis process as well.

Health considerations are a significant factor in the context of organic farming. Synthetic fertilizers have been associated with negative health effects on the human body, as highlighted in the paper "The Impact of Chemical Fertilizers on our Environment and

Ecosystem" by Chandini (2019). On the other hand, the consumption of organically farmed products has been suggested to have positive health effects, including a reduced risk of allergic diseases and obesity. However, it is important to note that the evidence regarding these health effects is not yet conclusive, as indicated by an article titled "Human health implications of organic food and organic agriculture: a comprehensive review" (Mie et al., 2017). Although the health effects of organically farmed products are not the focus of this thesis, they provide interesting motivation for farmers to adopt organic farming methods, which falls within the scope of this research. The mention of positive health effects by Mr. Kaneko in his book, examples shared by Mr. Obaro, and some preliminary studies suggest that this aspect could be an interesting topic for future research.

5.1.3 Bureaucracy and the cost of certification process

When it comes to the JAS certification, many farmers, especially Ms. Akahori, highlighted an issue that the Japanese government seems to have overlooked, multi-crop farming. The certification process must be carried out separately for each crop, and since organic farming requires crop rotation, as mentioned earlier, the process can become excessively expensive and burdensome. Several farmers expressed that the certification process for just one crop is already burdensome, and as Ms. Akahori pointed out, it costs around 100,000 yen per crop, which can be deemed an overwhelming expense for small farms. Considering the prevalence of small farms in Japan, as mentioned earlier, it is crucial for the Japanese government to consider this aspect.

Furthermore, the government's lack of consideration for the actual situation of the farmers is a significant issue. The couple operating Kaze No Ka farm also highlighted that the JAS certification process fails to account for factors such as field leasing and the use of biodegradable mulch. These factors indicate a disconnect between the government's approach and the real needs of farmers and the reality of organic farming in Japan.

It is intriguing to observe that localities are now planning to establish their own certification systems despite the existence of a national certification system. The goal of developing an independent certification system was mentioned by some of the farmers as

well as Mr. Obaro. It is, however, unclear what form a local certification could take, given that the law regarding organic certification in Japan leaves no room for interpretation. The term "organic" can only be used for JAS certified products, making it unlikely that locally certified products would be able to use this term. Therefore, it remains to be seen if these plans will ever be realized. Nonetheless, the existence of such plans highlights the potential need for a redesign of the JAS certification system, with a greater emphasis on incorporating the actual experiences and perspectives of farmers.

Knowledge of the JAS certification process appeared to be lacking among the farmers interviewed, with some, like Ms. Tashita Mieko, openly stating their limited understanding of the process. While they acknowledged its perceived difficulty, they did not seem to possess in-depth knowledge of the certification requirements. Providing simple education on the process could help increase awareness and popularity of obtaining certification. In contrast, Mr. Obaro, in his interview, explained that those who had obtained the certification did not find the process difficult. This highlights the issue of knowledge gaps among farmers.

5.1.4 Need for certification and strong community

Irrespective of the certification requirements or knowledge about the process, the interviewed farmers did not see a need for JAS certification. As explained by several of the farmers, their perspective stems from the fact that consumers in the town are already aware of which farmers practice organic farming methods, rendering certification unnecessary. This perspective may be influenced by the relatively small scale of farms in Ogawa Machi. The farmers themselves emphasized that since they primarily sell their products within the town, the size and nature of their farms do not necessitate certification.

In the event that their produce extends beyond Ogawa Machi, the nearby Tokyo market would be the logical expansion option. However, Mr. Kaneko Yoshinori's son, in his interview, expressed a different vision for the future of organic farming in Ogawa Machi, envisioning the town gaining a reputation as a "town of organic farming" that attracts people from Tokyo to purchase locally grown organic products. This viewpoint aligns

with Kaneko Yoshinori's perspective, as mentioned in his book on multiple occasions (Kaneko, 1994).

During the time when I worked in Ogawa Machi in 2015, I also noticed another interesting aspect that could play a part in the future of Ogawa Machi: tourism. On numerous occasions, there were groups of people coming from surrounding areas, but especially from Tokyo, to experience farming using traditional methods. One notable example was during the rice planting period, when hundreds of people came from Tokyo to simply plant rice by hand. For these people, the experience was worth the 2-hour travel from Tokyo, which indicates that there could be hope for tourism in Ogawa Machi. There were other occasions of groups of people arriving from Tokyo as well, but the rice harvesting event was the most notable one. Although these rice planters did not pay anything for the experience itself, I personally noticed that they purchased large quantities of products from Shimosato farm. In his book “Shimosato, community development with Mr. Kaneko” (2015, p.27), Mr. Kaneko also explains that Shimosato farm occasionally arranged events such as rice planting and sake brewing to raise awareness of organic farming.

The farmers did not discuss tourism as an option during the time of my interviews, but instead, they stated that such experiences are meant for spreading knowledge regarding organic farming. However, this example shows that the vision expressed by Mr. Kaneko in his book and by his son during the interview could indeed be realistic if enough effort is made.

It is noteworthy to highlight the considerable influence of Shimosato Farm, established by the late Kaneko Yoshinori, on the organic farming community in Ogawa Machi. All the farmers interviewed for this thesis not only knew about Shimosato and Kaneko Yoshinori but also spoke highly of him and acknowledged his significant impact on Ogawa Machi's organic farming practices. Mr. Tashita Ryuichi, for instance, specifically mentioned that Kaneko Yoshinori and his farm were the primary reasons behind his decision to establish his own farm in the village of Ogawa Machi. Shimosato, in a way, was seen as the originator of the concept of Ogawa Machi as a town of Organic farming. Mr. Kaneko’s vision of a town known as a producer of organically farmed products was resonated by the farmers.

It is also important to highlight the communal aspect of organic farming, especially in the case of Ogawa Machi. The interviewed farmers had a close-knit community where they knew and exchanged information with each other. Many of them claimed to personally know all the organic farmers within Ogawa Machi, which is feasible given the size of the village. As discussed in the analysis section, it was also a common narrative that farmers had received brief training at each other's farms, with all having trained at Shimosato under Mr. Kaneko's guidance at some point. This mutual support and cooperation among farmers were valued over competition. For small-scale farmers, this collaborative approach could be the most effective method of operating, especially considering that organic farming entails higher costs compared to non-organic farming, as mentioned by the farmers. Excessive competition could make the already expensive practice of organic farming financially unfeasible.

Additionally, cooperation among farmers can enhance synergies in logistics and improve production efficiency, as concluded by a study focusing on Ukraine (Alieksieieva, 2020). Therefore, the choice of organic farmers in Ogawa Machi to cooperate rather than compete appears to be rational. Additionally, as mentioned in Mr. Kaneko's book "Shimosato, community development with Mr. Kaneko" (p. 2015) and observed by me, this community does not purely consist of farmers. There are also several restaurants and shops that use these local products, and these shop and restaurant owners have close connections to the farmers as well. This further shows the communal aspect of organic farming in Ogawa Machi. Most products grown by the farmers in Ogawa Machi are also used by local residents, restaurants, and shops.

5.2 Discussion of findings within the framework of literature review

It is important to establish a connection between the findings of this research and the prior research discussed in the literature review section of this thesis. Equally crucial is the exploration of findings that emerged during the research but were omitted from the literature review section. By comparing the outcomes with existing research, the validity of the findings of this case study can be determined.

5.2.1 Size of the farm and the decision to certify

The relatively small average size of the farms in Ogawa Machi and their decision not to apply for the JAS certification is not unique to Japan. As discussed in the paper "To Certify or Not to Certify? Separating the Organic Production and Certification Decisions" by Michael D. Veldstra (2014), farm size strongly influences the decision to seek organic certification, with smaller farms being more hesitant to pursue certification. This phenomenon aligns with the observations made in Ogawa Machi. Additionally, Mr. Obaro confirms this in his interview, stating that most organic farmers are located on the island of Hokkaido. This could be explained by the fact that farms are typically larger in Hokkaido compared to other more urban areas in Japan. According to a report titled "Long-Term Trends in Japanese Agriculture and Agricultural Imports" (USDA, 2022), the average farm size in Hokkaido is over 30 hectares, which is over 10 times larger than the average in the rest of Japan. By land area, Hokkaido has over five times more organic farmland than any other prefecture in Japan (Statista, 2023). Although Hokkaido is the largest prefecture in terms of land area, this information, combined with Mr. Obaro Sotaro's interview, suggests that the size of the farm could indeed play a role in the decision to apply for certification.

The interviews with the farmers further validate this observation. As previously mentioned, several farmers expressed that organic farming methods, which necessitate crop rotation and diversity, are less financially rewarding compared to conventional farming practices. Due to the avoidance of monoculture in organic farming, small-scale farmers are unable to benefit from economies of scale. Each crop requires specific equipment and knowledge to grow, and if a farm of relatively small size cultivates over 80 different crops, such as Mr. Kaneko's Shimosato farm, operating profitably can become challenging. This further validates the observation that the farmers in Ogawa Machi have embraced organic farming for ideological or philosophical reasons rather than financial motives.

The paper by Veldstra (2014) also highlights several points that resonate with the situation in Ogawa Machi. Particularly, it states that philosophical beliefs often play a significant role in the decision to adopt organic farming methods, which aligns with the themes that emerged during the analysis of the interviews. In Ogawa Machi most farmers

stated that the biggest motivators for them to adopt organic farming methods were environmental concerns or the desire to be self-sufficient.

Additionally, the paper by Veldstra (2014) mentions that farmers who primarily rely on direct markets are more hesitant to certify their products, as the relationship between farmers and consumers serves as a substitute for certification. This resonates with the prevalent reasons cited by farmers in Ogawa Machi for not seeking certification. The farmers in Ogawa Machi have personal relationships with their consumers and majority of the produce is bought by the community members allowing them to personally explain their farming methods, as noted by Mr. Takahashi Tomohiro as well as Ms. Tashita Mieko. Therefore, the aforementioned paper clearly connects to the case of Ogawa Machi, suggesting that the phenomenon of non-certified farming is not unique to this town.

5.2.2 Locally grown products

Interestingly, this finding of Ogawa Machi is related to other research conducted around the world. A research paper titled "Revisiting consumers' valuation for local versus organic food using a non-hypothetical choice experiment: Does personality matter?" (Bazzani et al, 2017) explains that locally grown food products have gained increasing popularity worldwide in recent years. The research concludes that consumers are willing to pay a price premium for locally grown produce due to the emotional appeal it holds for them. Other studies also confirm the rising popularity of locally farmed products. A recent study found that there is a significant potential demand for locally farmed products in Europe (Solarz et al., 2023). Although neither of these studies specifically focus on Japan, in an increasingly globalized world, it is plausible that the popularity of locally grown food has also increased in Japan.

The research conducted for this thesis concludes that, at least in the case of Ogawa Machi, the increased popularity of locally grown products is indeed true, as confirmed by several farmers interviewed. According to these farmers, the popularity of their locally grown products has risen in recent years. Such an increase in popularity would naturally be beneficial for organic farmers, as in Ogawa Machi, they are all small-scale farmers who can be considered "local."

Furthermore, the willingness of consumers to pay a price premium, as mentioned earlier (Bazzani et al, 2017), would assist organic farmers in Ogawa Machi in dealing with the higher labor costs and lower crop yields associated with organic farming. It is important to note that while local often aligns with organic, any farm located nearby the consumer can be considered "local" regardless of the usage of organic farming methods. An increase in the popularity of locally grown food would nevertheless benefit the farmers of Ogawa Machi. On a larger scale of Japan, this trend could however have little to no effect on the popularity of organic farming methods, as small-scale farmers are not always organic farmers, merely it would help small scale farmers to sell directly to consumers.

5.2.3 Comparisons from around the world

As all the farmers interviewed for this thesis practice farming methods that could be termed as 'non-certified organic farming,' it is also important to explore research from other regions that investigate this phenomenon. The paper titled "Smallholder farmers' engagement in non-certified organic farming: a case from Southern China" (Zhu et al., 2020) concluded that in the case of Southern China, the majority of farmers reported their biggest reason for wanting to farm organically as the desire to preserve the land for future generations. There seems to be some similarity between the motivations of the farmers in Ogawa Machi and the farmers in the above-mentioned case study. Although the farmers in Ogawa Machi did not specifically mention the concern for future generations as a motivation, environmental reasons were mentioned by several of the farmers, highlighting a common theme.

Another study that bears relevance to the findings in Ogawa Machi is the paper "Non-Certified Organic Agriculture: An Opportunity for Resource-Poor Farmers?" by Cáceres (2005), which examines non-certified organic farmers in Argentina. The paper concludes that the most prevalent reason for farmers in Argentina to forego certification is economic. While the analysis of interviews in Ogawa Machi did not highlight costs as the most important factor, the theme did emerge significantly enough to be considered important in the decision-making process. The specific cost of certification was even mentioned by Ms. Akahori and general expensiveness was stated by Mr. Tashita. It is however important to note that the standard of living could play an important role when financial costs are discussed as a reason. The standard of living in Japanis notably higher

than in Argentina (The economist, 2019) and this point could partially explain why economic reasons did not come out as the most frequently occurring theme in the interviews.

5.2.4 Potential effect of subsidies on the decision to certify

In the literature review section of this thesis, it is discussed that it is more common for member states of the European Union to provide subsidies for organic farmers compared to farmers in other regions, such as the United States (Veldstra et al., 2014). Additionally, six out of the ten countries with the largest portion of land dedicated to organic farming were in the European Union (FiBL, 2021). Therefore, subsidies could indeed play a crucial role in the decision-making process of farmers and is a factor that has to be considered in the case of Ogawa Machi.

Based on the responses of the interviewed farmers it can be argued that the current subsidy scheme in Ogawa Machi is insufficient to influence the decision-making process of the farmers. However, with the new legislation in place that significantly increases subsidies (USDA, 2022; MAFF 2, 2023), the situation could potentially change in the near future. As discussed in the literature review section, the new legislation indicates a substantial increase in subsidies for certified organic farming. Only time will tell whether this increase in subsidies will have an effect, but the example of the European Union suggests that this change could have an impact.

Furthermore, as noted by the farmers, a significant increase in subsidies could persuade them to apply for certification. However, it is important to note that the farmers did not specify the exact amount of the desired increase in subsidies and some of the farmers, such as Mr. Kaneko’s son stated that the aspect of money does not really concern him and did not really concern his father either.

5.2.5 Effects of recent changes in legislation

As indicated by the aforementioned new law, there appears to be a positive shift in the government's perspective on organic farming. The interviews with Mr. Obaro Sotaro and Mr. Tsurunen Marutei also confirm that in recent years the government has taken a more proactive stance towards organic farming. Mr. Tsurunen Marutei explained that even the

2006 organic farming law received support from all parties involved. However, it remains to be seen whether this new legislation will have concrete effects on organic farming in Japan, unlike the 2006 law, which did not significantly increase the area of organic farmland. The ambitious goals set by the Japanese government through this legislation indicate their current attitude towards organic farming. However, it is important to remember that as is often the case in politics, goals do not mean that actual efforts will be made.

In the case of Ogawa Machi, the impact of this legislation is likely to be minor, as the farmers in Ogawa Machi showed little interest in certification and were not primarily motivated by financial incentives. Their decisions to farm organically were driven by ideological reasons, and they were content with selling their products within the local community. Consequently, the need for certification in their case is likely to remain negligible, as local customers do not require certification when making purchasing decisions.

5.2.6 Public opinion on organic farming

For the Japanese government to achieve their ambitious goal of having 25% organic farmers by 2050, they must consider the perception of the Japanese public, as discussed in the literature review section of this thesis. Consumers' purchasing decisions play a crucial role in assessing the feasibility of organic farming. According to a USDA report on the Japanese organic market (2017), only 5% of Japanese consumers have a correct understanding of the meaning of JAS organic certification. Although not explicitly mentioned by the farmers of Ogawa Machi, it is highly likely that if more consumers were aware of the accurate meaning of the JAS certification, farmers would have greater motivation to pursue certification. If consumers are not aware of the correct meaning of the certification, then the farmers would logically have little incentive to obtain the certification, as it would not bring them much added value. Organic farming is more expensive than non-organic farming, as has been discussed numerous times in this thesis, and certified organic farming even more so, as the certification process brings costs to the farmers. Therefore, the farmers must have a financial incentive for them to even consider certifying.

As explained above, the consumers' knowledge of the certification and its meaning play an important role in the popularity of certification. This is also pointed out by Ming Liu (2021) in her paper regarding Taiwan, which found that an increase in knowledge about the certification and its meaning tends to enhance consumers' interest in purchasing organically certified products. Given the limited awareness of the JAS certification in Japan, it is probable that the farmers of Ogawa Machi do not perceive the need to pursue organic certification, as consumers would not grasp its correct meaning regardless. Instead, the farmers in Ogawa Machi choose to personally explain their farming methods to consumers, as several interviewed farmers explained. Since the certification would not effectively communicate to Japanese consumers how the products are farmed, given their lack of understanding of its true significance.

This preference for personally explaining farming methods to consumers, rather than relying solely on labels, also aligns with the findings of Runan Yang's paper (2020). The paper concluded that consumers tended to place greater trust in the opinions of family and friends over information from official sources, especially concerning Ecologically Friendly Farming (EFF) products. Since organically farmed products fall within the EFF category, it appears that the observations made in Ogawa Machi validate the results of Yang's paper. The residents of Ogawa Machi appear to trust both the farmers themselves and the opinions of fellow residents more than they trust official information portrayed by a certification.

To conclude, it can be argued that the interview data from the interviews conducted in Ogawa Machi confirms the findings of several other studies mentioned above. This demonstrates that the farmers of Ogawa Machi are not a unique case but rather exemplify the increasing interest in organic farming worldwide. Additionally, the case aligns with the findings of several other studies indicating that small farmers with personal connections to their customer base generally prefer not to pursue organic certification. The globally increased interest towards locally produced food products enables these farmers to sell more locally rather than through for example a wholesaler, eliminating the need for an official certification. With local consumers the reputation and personal relationship matter more than a certification.

In addition, the Japanese government seems to have overlooked some aspects of Japanese agriculture which are more prevalent in Japan than elsewhere around the world, most importantly the relatively small size of the farms. This small size of the farms and the fact that organic farming requires multiple crops to be grown, creates a situation where the cost and bureaucracy relating to the certification can be too much to bear for farmers in Japan. However, simply making the certification process easier may not be sufficient, as is the case in Ogawa Machi. In addition to streamlining the process, there also needs to be a compelling reason for farmers to pursue certification. Educating farmers about the benefits of certification and the application process is equally crucial, as well as educating the consumers. If a sufficient portion of consumers in Japan were aware of the correct meaning of the JAS certification, there could also be an increase in the demand for products carrying such a symbol. Increasing demand would allow for higher prices, and more farmers would consider the certification worth applying for.

6 Conclusion

The case of Ogawa Machi provides a captivating example of a village that has transformed into an organic farming community. It illustrates how the influence of a single individual, such as Mr. Kaneko Yoshinori, can bring together a group of people to engage in organic farming as a unified community within a single village. The decision to adopt organic farming practices in Ogawa Machi is primarily driven by ideological motivations rather than financial considerations.

Remarkably, the community in Ogawa Machi has established a dynamic where the farmers have collectively concluded that there is no need to pursue organic farming certification. Within this community, there seems to be a very limited competition between the farmers as information and knowledge about organic farming practices are freely exchanged among members, eliminating the necessity for formal certification as a means of validation. Furthermore, the cumbersome and costly nature of the JAS certification process has deterred several farmers from pursuing it, resulting in a lack of incentive to seek certification.

It is crucial to recognize that if other organic farmers in Japan hold similar opinions and perspectives, more substantial efforts must be made by the government to achieve its ambitious goal of promoting organic farming across the nation. The findings from the case of Ogawa Machi shed light on the challenges associated with organic farming certification and highlight the need for policy adjustments and support mechanisms to encourage wider participation in organic farming initiatives. In addition, the findings show that the Japanese government must take smaller size of the farms into consideration with the certification process, if it hopes to attract farmers to certify their products. Educating the farmers on the certification process and its potential benefits has to also be taken into consideration.

6.1 Limitations and further studies

The most significant limitation of this study is certainly the lower number of farmers interviewed compared to the initial objective. The intention was to interview a larger group of farmers in the village of Ogawa Machi. However, due to the unfortunate passing

of Mr. Kaneko Yoshinori and unexpected time constraints related to my own exchange studies and the need to return to Finland from Japan, the research project faced limitations in terms of time availability.

Nevertheless, with the inclusion of the five farmers interviewed for this thesis and the insights gathered from Mr. Kaneko Yoshinori's book, I believe that the thesis was able to provide a comprehensive picture of organic farming in the village of Ogawa Machi. The similarity of the answers given by the farmers indicates that the interviews reached a saturation point relatively quickly in terms of obtaining new information.

An additional, yet important note is that since the interviews were conducted in Japanese, there may be some loss in translation as small nuances specific to each language are inevitably lost. However, I made every effort to preserve the original intentions conveyed in the answers. Furthermore, the body language and reactions of the interviewed farmers played a significant role in uncovering the true meaning behind their responses. This highlights the importance of conducting face-to-face interviews rather than relying solely on video calls. In conclusion, considering the limitations and challenges encountered during the interview and translation process, I believe the research was conducted in the best possible manner.

In the future, I believe that the case of Ogawa Machi could certainly offer an interesting subject for further research. This thesis provides only a glimpse into the organic farming community of Ogawa Machi, and additional research could potentially investigate the formation of this interesting community in the relatively small village near Tokyo. The farmers mentioned the development of a local certification, and if implemented, this certification in Ogawa Machi would certainly be an interesting case study subject. The farmers of Ogawa Machi have a strong interest in promoting organic farming and were more than happy to openly discuss the subject under their own names. This most likely relates to the ideological motivations covered in this study, revealing the reasons behind their decision to farm organically. Consequently, finding potential research participants would be relatively easy. However, it is important for potential researchers to consider that all of these farmers expressed a preference for discussing their opinions and views in Japanese rather than English, even if they had some knowledge of English. It is likely that understandably the farmers lacked confidence in expressing complex reasoning and

views in a foreign language, despite some of them being practically fluent in English. The close proximity of Ogawa Machi to Tokyo also makes conducting research easier compared to a location far from Tokyo. As explained by Mr. Obaro Sotaro, most organic farmers are located on the island of Hokkaido and the distances in Hokkaido are larger and might require a car as the public transportation is not as good as in Tokyo.

6.2 Implications of this study

Despite its limitations, this study points out that in the case of the village of Ogawa Machi, farmers chose organic farming due to ideological rather than financial reasons. Environmental concerns and the desire to live a certain lifestyle were the primary influencing factors for the farmers in Ogawa Machi. This study also confirmed previous findings regarding the correlation between farm size and farmers' motivations to engage in organic farming and seek certification. Most notably that a smaller size of a farm correlates with ideological rather than financial reasons and farmers owning a smaller farm more often hesitate to apply for certification compared to the owners of a larger farm.

Furthermore, the study concluded that if the government of Japan intends to achieve its ambitious goal of having 25% of all farmlands cultivated organically by 2050, more efforts are needed to encourage farmers throughout the country, including those in Ogawa Machi, to apply for organic farming certification. Although this thesis focused on Ogawa Machi, some conclusions can be applied to the national level. As discussed throughout this paper, organic farming in Japan remains a relatively niche field, distinguishing it somewhat from comparable countries worldwide. The farms that participated in this study were relatively small in size but representative of the average farm size in Japan. Therefore, the reasons provided by the farmers, particularly regarding the cost and complexity of the certification process, could also be applicable to other farms in Japan.

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Interview questions

The questions were translated to Japanese, and the interview was conducted mostly in Japanese.

1. What is your name and age?
2. What is the size of your farm?
3. What plants do you grow?
4. Do you consider yourself an organic farmer?
5. How long have you been farming using organic farming methods?
6. Why did you decide to become an organic farmer?
7. Do you think organic farming is more or less profitable than non-organic farming?
8. Do you know what this logo means? (Farmer was shown the JAS organic logo on paper)
9. Can you explain to me the meaning of this logo?
10. Have you ever considered applying for the JAS certification?
11. If yes, what are the biggest reasons why you would want to apply for JAS certification? [13]
12. If no, what are the biggest reasons why you would not want to apply for JAS certification?
13. Do you know anything about the process of obtaining JAS certification?
14. What is your opinion on the process of getting the JAS organic certificate?
15. In the application process for JAS organic farming certificate, farmer must not have been using chemical pesticides for 2 years. What is your opinion on this requirement?
16. In order to keep the JAS organic farming certificate a farm must be inspected once a year. What is your opinion on this requirement?
17. Any other thoughts on organic farming and the JAS obtaining process?
18. Farmers who have been JAS certified are entitled to get higher subsidies than non-organic farmers, are you aware of this?
19. Do you think a higher subsidy would have an influence on your decision to apply for JAS certification?
20. Do you have any knowledge of organic farming training programs?
21. what do you think is the future of organic farming in Japan? What about in the village of Ogawa Machi?

[13] The farmers were asked wither the question 11 or 12, not both, depending on the answer to the previous question