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## **Bachelor Project**

*The social acceptance of a food forest in a rural area*

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15-06-2024

## Abstract

There is a need for society to become more sustainable and achieve long-term viability. There are diverse initiatives who want to contribute to this, such as food forests. The change towards a more sustainable living environment can be problematic in rural areas due to defensive localism. Thus it can be harder to get social acceptance in a rural area as a food forest. Social acceptance can be important for the success of new development, and food forests need human interaction to help build, take care and make use of the food forest. To research this problem a sustainable initiative, a food forest, in a rural area has been used as a case-study. The following research question has been proposed; *“How does a food forest try to ensure social acceptance in a rural community, and how does this community respond?”*

A qualitative approach was used to answer this question to get an argumentative reasoning behind the communities' response. Ten interviews were conducted, interviewing three stakeholders from the food forest and eight inhabitants of the rural community.

The results show that the food forest their best integration techniques were openness and distributing information. In addition to this they used different measures. While social integration has never been their main focus, having an open posture gave them the most positive reactions.

The community responded hesitant and suspicious at first, but some have become more interested and positive due to the initiative, their openness, and visual displays of both their effort, persistence of the stakeholders and physical characteristics of the area changing.

The rapid change in scenery, and expected changes, is the main focus of a troubled start. Most interviewees are interested in sustainability and sustainable concepts although NIMBY is present. They are afraid of change and sceptical if it will actually be beneficial.

One limitation of this study is that it is a case-study. For future research it would be recommended to research multiple initiatives and communities and research if there is a pattern.

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## 1 Background

Climate change can be considered one of the biggest problems of the 21st century. There is a need for society to become more sustainable and achieve long-term viability. It should be possible for humanity to live on this earth without using all of its finite resources. With resource depletion and environmental pollution increasing, climate change has become a global issue with destructive consequences (Blowers, et al., 2012).

Another considerable problem is the growing population and food shortage. There is already a food shortage in certain areas of the world and with a growing population this problem, in combination with climate change, will probably only become harder to solve.

The change towards a more sustainable living environment can be problematic in rural areas. The recent farmers protests in f.e. The Netherlands, France, Belgium and Germany have shed light to this. These protests are from farmers in rural areas towards the restrictive European environmental policies that have a big influence on their traditional approach to agriculture.

To follow the EU policies and create a sustainable rural area there need to be changes in the way that farmers use their land. The intensive agriculture of recent years does not suit a sustainable way of living, it does not have long-term viability. Intensive farming also adds to a reduced biodiversity, poor soil quality and water pollution and shortage (Milieucentraal.nl).

Due to this wish for less intensive land-usage in rural areas there have been multiple sustainable initiatives that try to tackle this problem.

One of these are food forests. This is a form of agroforestry, combining agricultural and ecological principles. The soil is not fertilised, there is no use of heavy machinery and there is a different array of products to forage from the forest. The aim is to harvest a different range of produce year long. Nevertheless the different array of products are all plant based wherefore different food-production techniques are still necessary to supply a well-rounded diet according to the food pyramid. Food forest do tackle two problems relating to sustainable food intake. Produce grown in such a forest is both locally and biologically grown.

Food forests need human interaction to help build, take care and make use of the food forest. Social acceptance is important for the success of such new development. If the people who implement an initiative do not feel welcomed by a community, there is an added active opponent. In addition to this a community can help with the starting of a project. Local knowledge is an important factor to take into account when considering a sustainable initiative on rural grounds. A local community usually has knowledge about the area, think about f.e. groundwater flows.

## 1.1 Research Problem

This paper focuses on a food forest in a rural area in the Netherlands. This initiative is relatively new and located in close proximity to an averaged sized city, and multiple villages.

The founders are newcomers to the area, from a larger city, and are still navigating both the area and the initiative, thus assumed to still be figuring out how to manage being accepted by a rural community.

The young age and current state of the initiative makes it very suitable to study how a sustainable initiative tries to be socially accepted into a rural area. The initiative has received mixed opinions, regarding their city-descent and new approach to farming.

The purpose of this paper is to explore the different measures a sustainable initiative can take to try to be accepted into a rural community and how this community has reacted towards this food forest and their measures.

Which leads us to the following research question:

*How does a food forest try to ensure social acceptance in a rural community, and how does this community respond?*

In order to answer this question two sub-questions will follow:

1. *What measures did the food forest take to ensure social acceptance in a rural community, and how did they expect the measures to help?*
2. *How does the rural community respond to the food forest and their measures to ensure social acceptance?*

## 2. Theoretical Framework

### 2.1 Sustainable initiatives

Environmental sustainability is by necessity a multi-disciplinary concept (Dimitrov, 2010) and context dependent. Sustainable initiatives are established by entrepreneurs in an effort to gain environmental sustainability. For this research we are looking at a sustainable farming initiative, a food forest.

Sustainable initiatives are a valuable component of sustainable development. Sustainable development is defined by the World Commission on Environment and Development (i.e. Brundtland's Commission) as "...*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" [45], (Glavič and Lukman, 2007).

The food forest studied is relatively new, which leads to question if there is any help provided for new initiatives by local authorities. There are multiple local factors that can help local initiatives start up or survive. Frysia implemented guarantee funds (OmropFryslan, 2017) to ensure that local initiatives can be implemented.

Groene Metropool Twente is a partnership between 14 Twentse governments, the water board 'Vechtstromen', and 'Landschap Overijssel'. They strive towards a strong, green and future-oriented landscape by stimulating local projects by providing them with the right information. They claim that working together and sharing knowledge is their backbone.

This leads to assuming that sustainable initiatives have something to rely on. They have allocations to an organisation that can help them out, with funds or information.

#### 2.1.2 Food forest

A food forest is a form of agroforestry. Agroforestry is land use management combining agriculture and forestry examples to create a permaculture. Morel, Leger and Ferguson (2019) state the following definition: "*Food forest: polyculture mimicking forest ecology with multiple plant layers (annual plants, shrubs, trees, and liana) which produce a diversity of edible produce*" [3] as the definition of a food forest.

While this is still common in indigenous and traditional agricultural production systems, the contemporary concept of a food forest emerged in the late 20th century in Australia (Albrecht and Wiek, 2021).

Since agroforestry offers proven strategies to improve the water cycle, soil enrichment and biodiversity conservation (Jose, 2009) it suggests that it is a possible solution for rural areas in the Netherlands. There is a lot of discussion about the intensive farming usage of the land, this intensive land-usage occurs together with water degradation and soil depletion.

According to Morel, Leger and Ferguson (2019), Mollison and Holmgren (1978) coined the term perma-culture as "*an integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man*". Holmgren (2020) extended this term: "*Consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fiber and energy for provision of local needs*" [3], (Holmgren, 2020).

*"Food forests have the potential to provide healthy food, sufficient livelihoods, environmental services, and spaces for recreation, education, and community building."* [92] (Albrecht and Wiek, 2021).

Albrecht and Wiek (2021) display with this quote the social implications a food forest have. This could be on different scales, both local and regional.

Food production service is the core factor although next to food production services an important part are the social-cultural services a food forest offers. Such as education,

recreation and community building. This makes the impression that a food forest should be well accepted in an area to fulfil part of its goal.

## **2.2 Social acceptance**

In rural areas there usually is a form of community, as opposed to urban areas, where there is a more individualistic approach to neighbours. Think of the difference between 'gemeinschaft' and 'gesellschaft' as stated by Ferdinand Tönnies (1926).

The food forest has a direct link to different neighbours and a need for social capital. The social capital is needed for the accumulation of capital, buying the produce and the other social-cultural services. Social acceptance of the food forest is deemed important.

Wüstenhagen, Wolsink and Burer (2007), introduce three dimensions of social acceptance. Community acceptance is the most important for this research. They argue that one of the biggest barriers to overcome to achieve renewable energy targets, mainly wind energy, is social acceptance. While the food forest is not aiming towards renewable energy targets, it is similar to renewable energy. It is sustainable development and it changes the physical environment and scenery of an area. This is where the 'not in my backyard' (NIMBY) concept unfolds (Wüstenhagen, Wolsink and Burer, 2007). Wolsink (2007) states that it is statistically significant that wind power attitudes follow a U-shaped development pattern. Where the attitudes towards wind power are high before implementation in an area, then go down when implemented in that area, but go up again after a reasonable time after construction.

## **2.3 Defensive localism**

A big problem of initiating changes in a rural area is defensive localism. "Defensive localism is the defense of local power in order to defend the status quo" [261] (Barron and Frug, 2005). Barron and Frug (2005) also describe defensive localism from a political point of view as 'an active posture' and 'a form of active engagement'. This leads to the assumption that defensive localism derives from a group of people and their engagement with each other, and against others. It could be considered more of a social construct and a feeling of community, rather than more institutional such as regionalism (Mansfield & Solingen, 2010).

Doreen Massey (Oakes and Price, 2008) proposed that the traditional fixed and stuck local identity can be seen as outdated due to the changing space-time compression.

She recognizes the diversity and complexity of a place and argues for a more nuanced view of areas. She emphasizes that areas are not isolated anymore but have interactions with different factors such as migration and trade. Massey does argue that defensive and reactionary responses towards outsiders often comes from an uncertainty of place. "A sense of place 'rootedness' can provide stability" (Oakes and Price, 2008).

## **2.4 NIMBY**

The not in my backyard (NIMBY) concept is defined by the social reaction towards unwanted facilities or changes (Schively, 2007) and highly relevant to the planning practice. This social reaction is usually defined by resistance and conflict.

It is a response from people towards development that they also deem as important. However, not in close proximity to a specific area, usually their home. NIMBY responses happen when

people believe that they are sufficiently close to said proposed development (Kraft and Clary, 1991). NIMBY responses are stimulated by facilities that serve small parts of the population (Schively, 2007). Examples in urban areas are mental health facilities, homeless shelters and detention centers.

In rural areas the NIMBY phenomenon is common with a form of sustainable development; the building of windmills. Since they create both noise pollution and visual intrusion. According to (Smith and Klick, 2007), "Members and locals alike claimed that the project would ruin the pristine landscape and was environmentally unsound" [3]. In addition to this, Wüstenhagen, Wolsink and Burer (2007) stated that the social acceptance of wind energy was the subject of discussion due to the visual impact on the landscape.

Kraft and Clary (1991) analysed NIMBY responses and created the NIMBY Construct (figure 1). This model shows the five most frequent reasoning behind NIMBY responses.

Compensation is used frequently as a method of increasing acceptance (Schively, 2007) to reimburse potential losses because one of the biggest concerns surrounding NIMBY is property devaluation (Schively, 2007). A property's value can partially be determined by the surrounding area. Dwellings that are located in a rural area have certain characteristics such as privacy and space, peace and quiet and the natural environment. By implementing a drastic change in scenery these characteristics can change and thus the value of the property. Comparable to from a dairy farm with low grass and cows, towards a food forest with a lot of, high, vegetation. Schively (2007) also states that the impact on quality of life can be a big concern, which factors in with the change from a dairy farm towards a food forest.

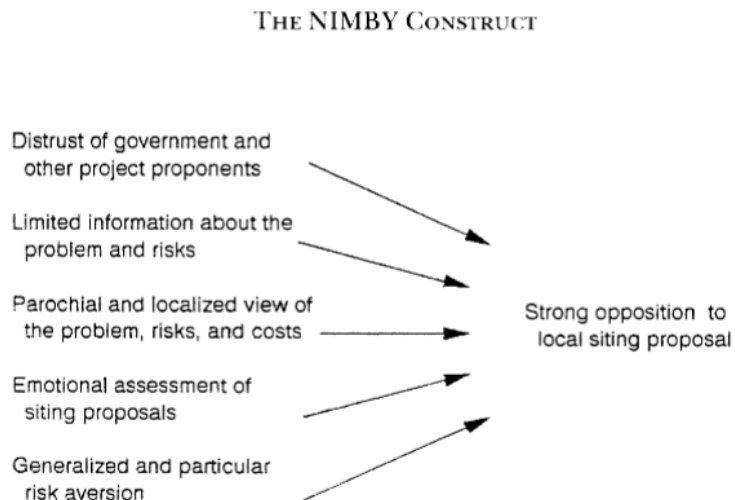


Figure 1: The NIMBY Construct. (Kraft and Clary, 1991).



### 3. Conceptual Model

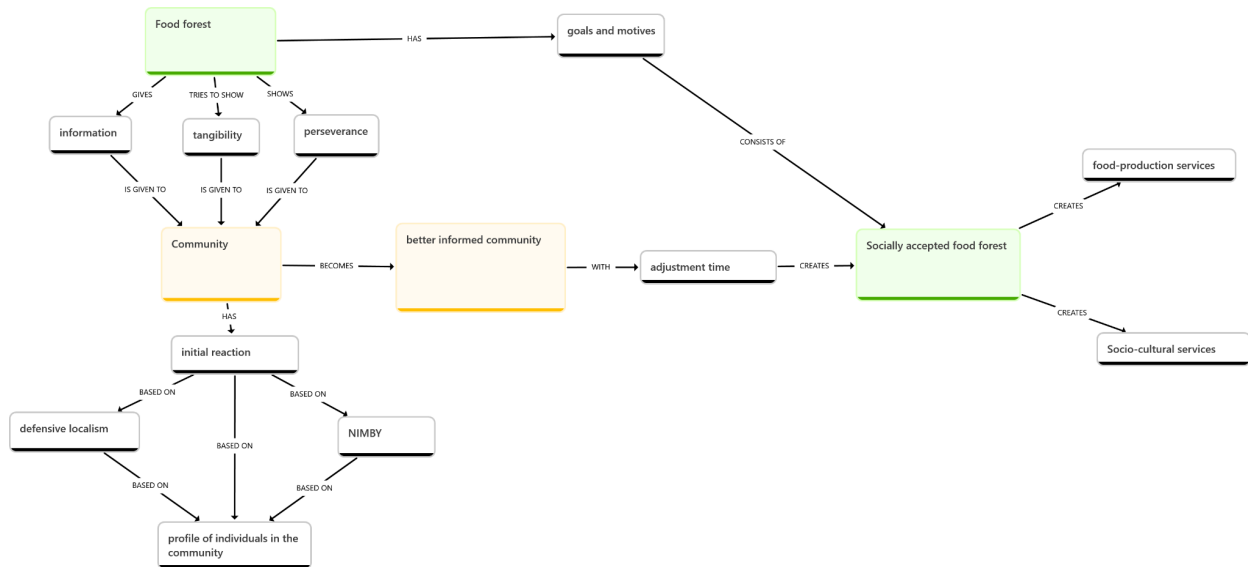


Figure 2: conceptual model of the relationship between the food forest and the community.

The conceptual model is a visualisation of the key concepts that play a role in the social acceptance of this food forest. The main actors are the community and the food forest, which implies the different stakeholders from this project.

As seen on the left of the model, the community has an initial reaction on the implementation of the food forest. This initial reaction is based on the profile of individuals in the community. This profile consists of different aspects about an individual and their personal life. This includes, but is not limited to, age, gender, occupation, connection to the former owner, view on sustainability, knowledge on food forests and spatial relation to the forest. These different factors create an image and is known as the initial reaction of the individual. Defensive localism also plays a role in the initial reaction, just as NIMBYism. The impact that these two factors have on the initial reaction is based on the individual's profile.

The food forest has goals and motives. One of these goals is presumably to be socially accepted by the community it resides in due to the need of social capital. The most important measure the food forest has taken towards acceptance is giving information towards the community. If the sustainable initiative is open towards the community regarding their plans and actions within the area, the community will respond better. It is plausible that the more they reveal, and the more open they are, the better they are received.

In addition to this they try to show tangibility, which has been shown to be important for community members, since they have a hard time visualising the food forest. Perseverance was an important aspect for the community members to show that the initiative cared and put effort into their surroundings. All three factors inform the community more about the initiative and they create a better informed community which together with some adjustment time create a socially accepted food forest.

#### **4 Hypotheses/Expectations**

The acceptance of a food forest made by entrepreneurs from outside the specific rural area can be considered difficult. They have most likely implemented certain measures to ensure better integration since they expected to have trouble integrating due to defensive localism with a tight knit community and implementing a new sustainable initiative. Not knowing anybody in the area, and 'drastically' changing its physical appearance, will have been their biggest burden to overcome. With persistence being key to getting accepted by a local community. By acknowledging towards the community that they are planning on staying here.

## 5. Methodology

To answer the research question a qualitative method has been used. In-depth interviews have been conducted to get a nuanced understanding of the respondents their opinion and attitudes towards this sustainable initiative. It is deemed important to know the respondents' argumentation behind their opinion since the aim of this research is to understand the respondents and their reaction towards the food forest. These interviews have been transcribed and then coded (Appendix 1) using atlas.ti.

The first subquestion; *“What measures did the food forest take to ensure social acceptance in a rural community, and how did they expect the measures to help?”*. Has been answered by interviewing the founders of the initiative. Trying to reveal the information behind what measures the food forest took to ensure social integration, and how the founders expected this to pan out. The sampling strategy used for this sub question is purposive sampling. The deliberately selected criteria was that they had to be founders of the food forest, thus relevant to answering the subquestion.

The second subquestion; *“How does the rural community respond to the food forest and their measures to ensure social acceptance?”*. Has been answered through interviewing eight people who live in a close proximity to the initiative.

It is deemed important to get a good reflection and sufficient view of the population.

In figure 3 the profiles of the interviewees from the community are presented.

| <b>Gender</b> | <b>Age (in years)</b> | <b>Member of the community for</b> |
|---------------|-----------------------|------------------------------------|
| Female        | 50/60                 | 7 years                            |
| Female        | 80/90                 | 60 years                           |
| Female        | 50/60                 | 30 years                           |
| Female        | 40/50                 | Born and raised                    |
| Female        | <35                   | Born and raised                    |
| Female        | 50/60                 | 2 years                            |
| Male          | <40                   | 7 / 8 years                        |
| Male          | <40                   | Born and raised                    |

Figure 3: Table with profiles of the interviewees from the community.

There were mainly females interviewed and there is a lot of differentiation in the amount of time that they have been habitable in this area which gives a broad view.

The sampling method used for the second sub question is considered a mix of snowball sampling and convenience sampling. With mutual connections and door-to-door contact the research has made use of both snowball sampling and convenience sampling.

A conclusion to the central research question will be made by analysing the results of the two sub questions.

Preceding the interviews, all participants will be verbally informed about their rights when

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entering the study. This includes the goal of the research, their anonymity within the research, the academic relevance and that they may withdraw to participate in the study at any point during the interview. To conclude the information prior to the interview, the participants will have to sign an informed consent form (Appendix, 2)

Ethical considerations surrounding the confidentiality and anonymity of the participants are regarded very highly. There were multiple concerns regarding other inhabitants of the area reading this research and figuring out their opinion. This is thus being treated as very important and with caution. Personal information will not be disclosed and all files will be stored safely.

## 6. Results

### 6.1 Qualitative analysis

Before analysing the results it is important to create an image of the area, and the food forest by explaining some of the spatial features. As explained before the food forest is relatively new, it is younger than 5 years. This entails that the founders of the food forest are still setting up the agroforestry system and there is little, to no, produce yet. The founders have been extremely busy with analysing the area, planning where to put all the different vegetation, and starting to plant these different trees and bushes. There is already a big physical difference since they started, although the crops that are able to be foraged have been very limited. It is supposed to grow to a relatively big size for a food forest in the Netherlands.

The rural area is relatively well connected to the rest of the Netherlands. There is an average sized city close to the area and multiple smaller villages. The food forest is connected to multiple private properties, close to multiple properties of the community and walking distance to the closest village.

The food forest has never had social acceptance on their agenda. With their main focus being on starting up the initiative, planning and planting the physical attributes of the food forest. This results in not being able to fully answer the first sub question. Since they never had a focus on social acceptance, there never were predetermined measures they would take nor a suspected outcome. Although they realise the importance of social capital for succeeding the food forest. "A food forest is inspired by nature, designed by people. But also designed for people" (Interviewee 3, 2024).

During the beginning phase of the initiative there were multiple actions taken which can be considered as measures to ensure better social acceptance.

These measures were mainly social gatherings, to get to know the community. They were interested in what people thought, and put a face to the people. They had social gatherings such as neighbour visits and an introduction drink. They also held informative lectures and tours about what permaculture and food forests are, but also about their plans and their navigation through their experiment. They explained that they also see the food forest as an experiment, they believe it will work, but it is still an experiment.

They also organise volunteer days where people are able to volunteer and help them plant different types of vegetation and get better informed about, for example, food forests. These are completely voluntary but they do seem to help with building social capital. People from different areas in the region come there and get acquainted with the initiative and the founders.

Realising that with a food forest this size they will need to accumulate more of a food forest community to help build the social capital necessary to achieve the goal, they are not working on this yet. "We realise that this will become too much to do with just us. Although we are very open for collaborations with different entrepreneurs who want to sell, use or process our foods. We simply are not actively looking yet" (Interviewee 2, 2024). While they have already made ties with smaller collaborations, such as with a beekeeper and the local ice cream-shop. There is no real produce yet, so they feel that this is now not necessary and they should keep putting their effort towards planning and planting.

According to the founders the most effective way of achieving social acceptance is having an open attitude and welcoming atmosphere. Stating that even though they can be divided hugely with some people, for example politically, they can still form a mutual connection through being a farmer. "...And we connect to each other. As farmers" (Interviewee 4, 2024). Stating that even though the way of farming might be different, they still have the same occupation.

They argue that by talking to people and engaging in conversation, they were able to share their knowledge and (part of) their plans, thus people have started to lose their initial bad ideas.

Which is not actively taking measures.

They state that it is obvious that they share information and do informative tours in their forest. "Because it is new, and you would like to share that knowledge" (Interviewee 3, 2024). In addition to the founders liking to share knowledge about the food forest, they also see the importance of it. Due to many people being uninformed about what is happening. It is deemed logical that people make assumptions without the proper knowledge. Since there is no tangible or physical evidence of what a food forest looks like, they deem the story behind the food forest also very important to tell. "There is a story behind it. You just have to look through it (the beginning phase). It is something that will only be convincing in a couple of years if you do not know the story" (interviewee 4, 2024).

The interviews also shed light on the initial bad reactions that they got, and are still receiving, to the initiative. Which sounded a lot like defensive localism, due to locals defending the status quo. These bad reactions were mainly negative opinions and ignorance. The initial shock consisted of reactions like: "will there be a tree in front of my house?!" and "and how do you make ends meet?!".

Except for the emotional baggage with this situation, they also saw the polarisation that happened due to the farmers' protests. Most importantly the lack of knowledge that inhabitants had. This is also why their best measure was openness and informing. After an open conversation with somebody who had a negative opinion about the initiative, these people sometimes started to root for the initiative and hoped it would succeed. Or they would create a bond over the bad weather and bonding them as farmers, or locals. Displaying the effects of acquisition of knowledge.

All of the participants felt connected to the community and the area. Liking the natural areas, the peace and quiet and wanting to be able to look away. Although they were keen on the close proximity to more urbanised areas. As interviewee 7 stated “I would not go any further than this”. Implying this is as far into a rural area she would go.

Most of the participants from the community that have been researched deem sustainability as important. While arguing that they feel like it is a very broad concept and a buzzword. As a response to the question “What do you think about sustainability?” a common answer was: “Yea, a very broad concept. And a bit of a commercial concept” (interviewee 8, 2024). The capitalization of the word ‘sustainability’ has a negative connotation to it according to many participants. “Green go, but not if you are in the red” (Interviewee 11). This is a quote from a participant arguing that sustainability is a good thing, but that you do not always have the financial means to do this.

Sustainability being a broad concept also led people to give their own interpretation to it. One participant would talk about solar panels while the other would talk about the most efficient way to use a product. Interviewee 1 argued that it is ingrained in everybody's daily life already, giving examples such as separating waste.

Most people interviewed shared initial doubts about the initiative. These doubts came mostly from unfamiliarity, but the term ‘idealistic’ was also used. There was also the shock about the change of scenery. “Usually there were always cows and grass ... then you get an imagine in your head of different kinds of trees, forests, branches, plants. Kind of a chaos” (Interviewee 7, 2024). This interviewee felt it as heavy, implying that it is something she has to look at daily. Some of them had known about a similar initiative, but most were in the dark.

Some interviewees admitted that after having more information about the initiative their perspective changed. “But we also had a guided tour. And now I look at it differently” (Interviewee 10, 2024). Another participant

Seeing the determination from the founders and the physical changes in the area helped people to adjust to the changes. “Now I have a lot of expectations because they put so much effort in it” (Interviewee 1, 2024).

Most of them are inclined to buy produce there, once they could. However most participants are still sceptical if it will actually ever be profitable.

As mentioned above, one of the bigger social acceptance strengths was openness and informing. Although a considerable issue for some participants would be the ever changing nature of the plans, and the attitude towards the plans.

They are, according to participants, adding new things every week and not open enough about this. They feel left out on the decision making process

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With an added opponent being the municipality. There has not been good contact between some of the participants and the municipality, which creates a bigger negative annotation. They also feel like there is a bias towards the food forest. Inclining that



## **7. Conclusion and discussion**

A rural community will act hesitant at first but are inclined to be more accepting towards a sustainable initiative. This inclination is dependent on the openness and informing nature of the initiative.

The initiative's best integration techniques were openness and information sharing. In addition to this they used different measures. While social integration has never been their main focus, having an open posture and sharing the story and information gave them the most positive reactions.

The community responded hesitant and suspicious at first, but some have become more interested and positive due to the initiative, their openness, and visual displays of both their effort, persistence and physical characteristics of the food forest changing.

The rapid changes, and expected changes in scenery is the main focus of a troubled start. Most interviewees are interested in sustainability and sustainable concepts although NIMBY is present. They are afraid of change and sceptical if it will actually be beneficial.

For future research it would be recommended to research multiple initiatives and communities, to ensure a broader understanding of the social acceptance of food forests in rural areas. It would also be interesting to interview people below the age of thirty to see if there is a difference in opinion. And an interview with people from the municipality could give a different perspective on the legislative part of the discussion.

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### **Figures:**

Figure 1: The NIMBY Construct. (Kraft and Clary, 1991)

Figure 2: Conceptual model of the relationship between the food forest and the community, 2024.

Figure 3: Table with profiles of the interviewees from the community.

## 9. Appendixes

### Appendix 1: Code tree



