

From Grassroots to Global: Community-Based Entrepreneurs Shaping Systemic Change

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Abstract

This research explores how community-based entrepreneurs can contribute to the reorganization of natural resource management and find solutions to environmental problems within the current capitalist economy. Recent scholars on post-capitalism, believe that the economy can be organized by different institutions than the market and investigate the role of individuals as catalyst of environmental and social change from the bottom up. By conducting an ethnographic-inspired, qualitative study of the Sunnemo eco-village, the research explores how community-based entrepreneurs have the potential to catalyze social and environmental change through local actions. This study applies Elinor Ostrom's eight design principles as support for analyzing the community's local governance structure. The key findings emphasize the importance of defined community boundaries while allowing external visitors to replicate their sustainable lifestyle. Additional findings show that the eco-village is organized as nested enterprises, by collaborating with neighboring communities which support the maintenance of local commons, with a global focus. This study highlights the significance of two design principles in achieving a harmonious balance between the local aspirations and global ambitions of Sunnemo eco-village while emphasizing how community-based entrepreneurs can catalyze social and environmental change.

Key words: Depletion of natural resources, re-organizing the economy, bottom-up efforts, community-based entrepreneurship, common-based economy, eco-villages, community boundary management, collective action, social and environmental change.

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Glossary

Commons: The word 'commons' comes from the Latin root 'communis', which means both "in common, shared by all, or general," and also "common property." The commons are what is owned together, traditional examples of commons include forest, fisheries or groundwater resources. Yet, the term 'commons' is used for a broader set of domains, e.g. knowledge commons, digital commons, urban commons, health commons, cultural commons and more.

Common-based economy: A common-based economy refers to systems where resources are collectively owned and managed by a community. In such economies, the main resource is protected based on established community rules that are agreed through collective agreements. This includes the challenge of creating rules that control the amount, timing and technology used to attract different units of the resource. It's essential to create balance in making these rules, as setting them too high would result in the overuse and depletion of the shared resource, whereas setting them too low would decrease the benefits from the users.

Common-pool resource: A common-pool resource (CPR) is a type of good made up of a system of natural or human-made resources (such as forest or fishing grounds) whose size or properties make it expensive, but not impossible, to exclude potential beneficiaries from reaping benefits from their utilization.

Community-based entrepreneur: Community-based entrepreneurs are realizing communities that alternative from the mainstream economy. Cultural values, shared resources, connections, and mutual trust are beneficial to the community and are nurtured through close personal relationships.

Eco-village: Eco-villages are communities with the aim of being socially, economically and environmentally sustainable. Eco-villages are founded on the principles of the commons. It is defined as a clustered human settlement, larger than a hamlet but smaller than a town, with a population ranging from ten to a few thousand people.

1. Introduction

Environmental degradation from unsustainable natural resource uses is one of the most pressing challenges of our time. We are exhausting scarce natural resources, such as fisheries or forests, which threatens varies species, and even humanity. Such scarce natural resources are also understood as our "commons", that allows individuals to take benefits from a resource that nobody has exclusive access to (De Angelis, 2017). Fundamentally, the problem of exploiting finite resources is a result of how we organize our current economy of capitalism, which pursues continuous growth for individual gain that is reliant on finite resource and unaccounted for free finite ecosystem services (De Angelis, 2017). The increasing demand for natural resources has been considered a wicked problem and a serious threat to our current social and economic systems (Ostrom E., Governing the commons: The evolution of institutions for collective action., 1990). Environmental problems such as climate change, biodiversity loss and ecosystem degradation have a direct impact on our economy, as well as social inequality. Many scholars argue that the socioeconomic system of capitalism and its mode of production are the main driver of ecological degradation and climate change (S. Solomon, 2007).

To resolve this issue, a new breed of entrepreneurs who focus on social and environmental change is emerging. These entrepreneurs recognize the need to reorganize the management of natural resources to tackle the current adverse effects on the environment. They are often defined as community-based entrepreneurs and believe that they can play a crucial role in catalysing social and environmental change (Pierre, Friedrichs, & Wincent, 2013). Such community-based entrepreneurs set-in motion social change by organizing alternative economies locally, while aiming at larger social change. A small-scale example of community-based entrepreneurship are eco-villages. Eco-villages are local, common-based initiatives that aim to reorganize the economy. Common-based economies are in opposition to capitalist logic, as the main trait is to imply recognizing shared risk and find joint solutions to shared problems. The goal is not individual gain or profit, but collective sustainability through contributions to shared goals. Thus, community-based entrepreneurs can offer alternative models based on regeneration through cooperation (Ostrom E., 1990).

This qualitative study aims to explore how community-based entrepreneurs organize local action yet aiming at global social and environmental change. The focus of this research is on how a new breed of community-based entrepreneurs can contribute to the reorganization of

natural resource management and find solutions to environmental problems. In this understanding, the boundaries of entrepreneurship theory are extended to encompass communities that organize bottom-up to catalyze social change. To examine this, this study aims to answer the following research question:

How do community-based entrepreneurs balance local action with a global focus?

2. Theoretical Framework

2.1 A broader perspective of entrepreneurship

Mainstream ontological and epistemological bases of entrepreneurship are particularly oriented towards financial growth, opportunity recognition, profitability and market gain (Calás, M. B., Smircich, L., & Bourne, K. A., 2009, s. 1). Correspondingly, extensive scholars on entrepreneurship argue that solely seeing entrepreneurial theory as a field of opportunity recognition is 'short-sighted' as it is a more complex phenomenon which requires a multiperspective (Calás, M. B., Smircich, L., & Bourne, K. A., 2009, s. 1). The origin of the word entrepreneurship declares that it has more extensive meanings than solely a 'positive economic activity'. The definition of entrepreneurship is originated around the 12th century from the French language as "entreprendre" which means to 'set in motion', referring to a process or activity to achieve something (Landström, 2020). Accordingly, in the multi-levelled understanding of entrepreneurship by Calás, Smircich & Bourne (2009), 'entrepreneuring' can also be a process of achieving social change, on a system-level by organizing bottom-up efforts. Entrepreneurship as a driver of social change is often defined as 'social entrepreneurship'.

This research aims to contribute to the development of this broad definition of entrepreneurship, which ties to the very etymology of entrepreneurship. The extensive research and theory on entrepreneurship by Calás, Smircich & Bourne (2009) change the perspective to entrepreneurship from the mainstream perspective "entrepreneurship as positive economic activity" to "entrepreneurship as social change (Calás, M. B., Smircich, L., & Bourne, K. A., 2009). In this research we reframe the entrepreneurship theory and research by exploring the variety of social change on a systematic level that social entrepreneurship aims to catalyze.

2.2 Social entrepreneurship: A Community-based approach

There is a difficulty in defining the research objective of social entrepreneurship. According to Banks (1972), who introduced the term 'social entrepreneurship', social entrepreneurs are the ones that radically change social systems. Some scholars define social entrepreneurship as non-profit organizations, whereas others refer to community-based entrepreneurs (Barinaga, 2012). In this research we follow the term of community-based entrepreneurship as it specifically defines the ability of groups to transform societies (Pierre, Friedrichs, & Wincent, 2013) Where successfully implemented, it can reinvigorate a society. Although it would seem an obvious

topic, there has been little research on community-based entrepreneurship, and tends to be very limited (Hassan, 2021).

Community-based entrepreneurship, exist in different forms, such as NPOs, local community development organizations of which ecological villages are an example, and traditional small firms linked to rural and social development programmes. Such community-based enterprises aim to set-in motion social change by organizing alternative economies on a local scale. There is a paradox in the organizational efforts of these community-based entrepreneurs: They organize locally, while aiming at larger social and environmental change (Lam, 2020).

2.3 History of the theory of the commons

In this section, we analyze the theoretical principles that support the new political economy of a commons, as introduced by Elinor Ostrom (1990). Commons are scarce natural resources that provides individuals to take benefits from a resource that nobody has exclusive access to (De Angelis, 2017). From this key concept, we explore two key developments in the history of theoretical thinking of a common to clarify its definition. First, the theory of 'The Tragedy of the Commons' by Garrett Hardin (1968). He argued that individuals with access to an open resource, or a common according to Hardin, such as common grassland or fisheries, tend to exhaust a resource to maximize self-interest risking the depletion of a resource. Mainstream economics argue that the solution is to give ownership of the resource is to the market or state. In opposition to this theory, Ostrom argued that Hardin's theory is not a definition of a commons, but solely a case of open access (De Angelis, 2017). Ostrom argues that there is, besides the state and the market, a third model for governing the commons: self-organized communities. Ostrom's research is based on extensive travels to observe commons that had been successfully managed over centuries. In Governing the Commons (1990), Ostrom argues that commons always have collective action problems and communal governance rules is a solution to prevent resource depletion. Along this definition, Ostrom's conceptualisation is the starting point of approaching commons as social systems (De Angelis, 2017). To understand how Elinor Ostrom defined the commons, we classify different typologies of resources (Ostrom, 1990). The distinction between different typologies of resources is crucial to understand how Ostrom defined the commons and how these can successfully be governed (Ostrom, 1990). How communities are governing the commons is theorized by Ostrom with a tool for building a commons governance framework: the eight design principles (Ostrom, 1990).

2.4 Tragedy of the Commons

In 1968, Garrett Hardin introduced the 'Tragedy of the Commons' to exemplify a deterioration of the environment as a result of individuals using scarce resources in common (Hardin, 1968). The Tragedy of the Commons in society is applicable to much more than the environment, but we study environmental common resources such as forests, rivers and oceans the most (Ostrom E., 1990, s. 3). He stated that each individual is stuck in a system that forces them to act selfish in a world with limited resources which results in overharvesting, deforestation and overfishing. Hardin uses a true example of the Tragedy of the Commons where selfish herders, with open access to a 'free for all' resource, tend to gain as much as they could out of the common resource by overgrazing a meadow. Herders tend to send their cattle to consume the grass first, before someone else benefits more from the resource, resulting in overgrazing if all individuals behave similarly. Thus, The Tragedy of the Commons explains the individual's tendency to make decisions based on self-interest rather than the common good (De Young, 1988). This understanding of human behavior has been analyzed already by the ancient Greeks where Aristotle pointed out the problem of common resources: 'What is common to many is taken least care of, for all men have greater regard for what is their own than for what they possess in common with others' (Ostrom E., 1990, s. 2).

Accordingly, Hardin argued that resource depletion and environmental degradation result from such rational decision-making tragedies of innocent actions of individuals (Hardin, 1968). Individual rational behavior is a decision-making process based on optimizing the personal benefit for an individual by overusing the resource system which causes long-term harm for themselves and others (Vriend, 1996). Central to this dilemma is the free-rider problem, explaining that individuals do not participate in the common effort, but free-ride on the efforts of others (Ostrom E., 1990, s. 6). If all participants free ride, the collective benefit, or the optimal outcome, will not be achieved. The decision and temptation to free ride dominates the decision-making process and negatively influences the collective benefit. Although these dilemmas are constantly occurring and causing long-term environmental harm, the dilemma has still not been solved (Dawes, 1980). The decision-making tragedy is also understood in game theory through examples such as the 'prisoners dilemma' or the 'collective action problem' to conceptualize the problems individuals face when achieving common benefits (De Young, 1988). The prisoner's dilemma suggests that it is possible for rational individuals with rivaling incentives to cooperate and choose an optimal outcome (Van Dijk, 2015).

The 'Logic of Collective action' by Mancur Olson (1965) is an accompanying perspective of the difficulty of individuals to seek the common benefit. Olson summarized this perspective by mentioning that if the members of a group have a common interest and if they would all be ultimately better off, they would rationally act to achieve the common objective from self-interest. Nevertheless, Olsen argues that rational, self-interested individuals will not act in the best interest of the group, unless the number of individuals is relatively small (Ostrom E., Governing the commons: The evolution of institutions for collective action., 1990, s. 6).

According to Hardin, there are two solutions to prevent the destruction of natural resources as a result of rational decision tragedies or collective action problems. One, is that the state must control most natural resources and maintain the quality. Alternatively, natural resources must be privatized by individuals in who's that is to maintain the quality and capacity of the common resource (De Angelis, 2017). In both situations the organization of collective action is initiated by individuals, whose benefits are directly connected with the generated surplus. Mainstream economics agree with Hardin's conclusion that external authorities are unquestionably needed in the occurrence of the decision-making tragedy in common governance. In contemporary theories on resource economics, resource users are trapped in repeated dilemmas as a result of noncooperative game theory (Ostrom E. R., 1994).

Until the 1980s, most scholars agreed with the conventional idea that commons can only be governed by external authorities requiring privatization or centralization to prevent the overexploitation of natural resources (Baker, 2014). Though, recent scholars opposed this solution by showing that the commons can be governed by community-based or local management systems (Feeny, 1990). Recent research on the common governance theory has highlights there is no fixed solution to achieve the sustainable management of natural resources. The success of natural resource governance depends on the characteristics of the resource, the users, external factors and the institutional design (Ostrom E., The challenge of common-pool resources., 2008).

In Elinor Ostrom's Nobel-winning research on Governing the Commons (1990), she opposes Hardin's solution by mentioning that neither the state nor the market is solely successful in enabling individuals to sustain long-term, productive use of natural resource systems. She argues that all individuals have the capacity to solve commons problems in dilemma situations where commons can be managed well without state interference (Ostrom E., Governing the commons: The evolution of institutions for collective action., 1990, s. 28). Accordingly, commons can be governed by a third model: local communities. After travelling to many

communities that had successfully managed commons for over centuries, Ostrom concluded that the solution to 'The Tragedy of the Commons' is best addressed through common-based governance. These communities were developing social norms and institutions where they not only acted upon self-interest, but the common good (De Angelis, 2017, s. 169).

2.5 Governing the Commons

2.5.1 Ostrom's definition of a commons: Distinction between open access and commons

Ostrom argues that what Hardin described is not a commons, but a scenario in which there were no boundaries to the use of natural resources gracing without rules and presence of communities. According to Ostrom, Hardin does not give the definition of a commons, but an open-access regime (De Angelis, 2017, s. 169). From the recent perspective of the commons by Ostrom, a commons has boundaries and rules and social norms without free riders. Therefore, Ostrom states that the definition of a commons is not a resource in itself but involves a community with governance of values and norms to preserve the sustainability of resources (De Angelis, 2017, s. 163). For Ostrom, commons are 'where the members of a clearly marked group have a legal right to exclude nonmembers of that group from using a resource. Open access regimes (res nullius) – including the classic cases of the open seas and the atmosphere – have long been considered in legal doctrine as involving no limits on who is authorized to use a resource' (Ostrom E. , 2000, s. 335). This distinction from Hardin's definition of a commons is the starting point for Ostrom to define commons as social systems resources (De Angelis, 2017, s. 169).

2.5.2 Typologies of resources

The definition by Ostrom of a commons as a social/economic system needs further explanation than distinguishing the term from an open-access resource to a resource maintained by communal governance (De Angelis, 2017, s. 145). By way of explanation, common goods are distinguished according to four different typologies, as introduced by Elinor Ostrom (Ostrom E. R., 1994) (De Angelis, 2017, s. 37). As illustrated in table 2.5.1, the most important distinction between typologies of resources is based on two attributes: excludability and subtractability also known as rivalry of resources. This explains whether individuals can be prevented from consuming the resources (excludability) and if the consumption of individuals impacts the availability of the resources to others (subtractability). In regard to these two

attributes, resources can be separated into four categories: Common-pool resources, public goods, private goods and toll goods (club goods) (Ostrom E. R., 1994).

Table 1 Classification Table for Types of Resources (Ostrom, 1994)

| | Subtractability of Use | | | |
|---------------|------------------------|----------------------|------------------------------|--|
| | | High | Low | |
| Difficulty of | High | Common-pool | Public goods: peace | |
| Excluding | | resources: | and security of a | |
| Potential | | groundwater basins, | community, national | |
| Beneficiaries | | lakes, irrigation | defense, knowledge, | |
| | | systems, fisheries, | fire protection, | |
| | | forests, etc. | weather forecast, etc. | |
| | Low | Private goods: food, | <i>Toll goods:</i> theatres, | |
| | | clothing, | private clubs, | |
| | | automobiles, etc. | daycare centres | |

Private goods, such as food or clothing, are both excludable and rival and have to be purchased before consumption. In Ostrom's definition, a "common-pool resource" (CPR) is 'a natural or man-made re-source system that is large enough to be costly to prevent individuals from gaining benefits from using it' (Ostrom E., Governing the commons: The evolution of institutions for collective action., 1990, s. 32). Common-pool resources (CPRs) are identified as nonexcludable resources with high levels or rivalry such as forests, lakes and fisheries (natural CPRs) and irrigation systems, bridges or parking garages (man-made CPRs). This explains that anyone can consume the resource, but the availability decreases if one individual consumes from the resource. Therefore, overuse problems often occur in CPR situations (Ostrom E., Governing the commons: The evolution of institutions for collective action., 1990, s. 32). Both private goods and common-pool resources are tangible products meaning that the subtractability of use is high. Public goods, such as knowledge, sunsets or weather forests, are often non-rivalrous and non-excludable. No one can be prevented from consuming them and individuals can use the goods without reducing the availability for others. Toll goods or club goods, such as theatres, private clubs or cable television, are excludable goods. These goods are excludable because individuals can be stopped from consuming them, but the rivalry is low because the consumption does not reduce the availability to others (Ostrom E. R., 1994).

Most important to understand commons as social systems, is the distinction of a common pool resource in comparison with other types of common goods. Ostrom often defines commons as common-pool resources. The importance of social processes and local, communal governance is important, because the excludability and subtractability of a CPR is high, therefore difficult

to govern successfully for the sustainability of the resource (Ostrom E. , 1990, s. 32). Thus, 'commons' is a jargon for common property regimes. Commons are defined by their characteristics such as excludability and rivalry or by their property rights regime, such as private or public, or both. In Ostrom's research on commons as alternative economic models, she refers to common pool resources, or property rights regimes specifically. Where capitalism pushes for individual rights and gains, common property regimes advocate shared rights, shared responsibilities and shared or distributed gains (Ostrom E. , 1990).

2.5.3 CPR: Resource systems and resource units

As mentioned previously, natural CPRs such as fisheries or forests are more likely to be overused than public goods, such as knowledge or sunsets, as the subtractability and rivalry are high. When a man-made CPR, such as a bridge is being over-used, this will lead to a blockage. Though, when a natural CPR is overused, like a rivers or forests, this can lead to destroying the capability of the resource system to produce new resource units which result in environmental catastrophes. To maintain the sustainability of natural CPRs and understand the governance of CPRs like commons as social systems, the distinction between resource units and systems within a CPR is clarified by Ostrom (Ostrom E., 1990, s. 32).

A resource unit is what individuals consume from a resource system over time such as fish harvested from a fishery or water that is withdrawn from a canal. A resource system is the generated flow of resource units such as fishing grounds, rivers, lakes and oceans (Ostrom E., 1990, s. 30). Important in this distinction is that the incentive of an individual to take another fish (resource unit) is not the same as the incentive to maintain the quality of a river (resource system). A resource unit cannot be taken or used by different individuals simultaneously. Although individuals rely upon and use a resource system such as a river, simultaneously, the maintenance of a resource system is beneficial for all individuals that retract units from the resource system (Ostrom E., 1990, s. 30). Thus, the characterisation of the commons as a CPR makes an important distinction between resource systems and resource units: The resource system is a common good, not the individual resource unit. No allocation of resource units can occur without a resource system, though, without a fair method of allocating resource units, individuals have little motivation to maintain and govern the preservation of a resource system (Ostrom E., 1990, s. 32) (Ostrom, 1990, 33).

Governing a natural CPR is often a complex process that depends on different circumstances such as the quantity of rainfall, temperature or market prices of products. Another important

source of uncertainty is the lack of knowledge. For example, folk knowledge of a long-preserved natural resource pool, must be passed on to the next generation and further discovery of the internal structure requires investment in geologists and engineers (Ostrom E. , 1990, s. 32)(Ostrom, 1990, 33). Uncertainties as a result from lack of knowledge can be reduced by combining scientific and local knowledge, though uncertainty is always there, and the discovery processes is a matter of learning by trial-and-error. Over time, individuals gain more knowledge of the physical world and the behaviour of others (Ostrom E. , 1990, s. 32)(Ostrom, 1990, p. 34).

Individuals that use a resource simultaneously can be restricted from gaining access to a CPR. To differentiate the type of access, Ostrom uses different terms to describe the governance of CPR. Ostrom defines individuals that withdraw units from a CPR as 'appropriators'. An appropriator can be seen as someone that appropriates units from a type of resource system. The appropriators use the resource units for production processes or selling the unit to others, such as fishing and then subsequently selling the fish that were caught. Thus, the scarcity of resources is analyzed from the perspective of appropriators (Ostrom, 1990, p. 30).

Ostrom uses the term 'providers' to describe individuals that arrange the provision of CPRs and 'producers' which refers to anyone that maintains and takes actions to sustain the resource system itself. Often providers and producers are the same individuals but this is not always the case according to Ostrom (1990). For example, a national government can provide a system that consequently can be governed by local farmers (Ostrom, 1990, p. 30). Managing the commons in a common-based economy create mechanisms to exclude outsiders from using a resource.

2.5.4 How to govern a commons: The Eight Design Principles

To avoid the breakdown of a natural CPR, Ostrom highlights the eight design principles that a commons regime should have in order not to fail (De Angelis, 2017, p. 156). A design principle is an 'essential element or condition that helps to account for the success of these institutions in sustaining the CPRs and gaining compliance of generation after generation of appropriators to the rules in use' (De Angelis, 2017, p. 157). Based on decades of empirical cases of survived commons, the eight design principles are the basic common-sense governance principles that a community of commoners must follow in their regime. Although, all cases and common systems differ from one another. Thus, specific rules such as specific attributes, cultural views and economic and political relationships differ in each setting. De Angelis (2017) explains that

'Without different rules, appropriators could not take advantage of positive features of local CPR or avoid potential pitfalls that might be encountered in one setting but not others. Ostrom build a set of eight design principles that explain the potency of communities to facilitate effective management of CPRs. The main task of Ostrom's framework is to build a useful tool to build a common-based economy. The eight design principles are as follows:

Table 2 Ostrom Eight Design Principles (Ostrom, 1990)

| Des | sign principle | Description | | |
|-----|---|--|--|--|
| 1. | Clearly defined boundaries | Membership involving rights to withdraw CPRs and physical boundaries of the resource(s) are clear | | |
| 2. | Congruence between appropriation and provision rules and local conditions | Rules are congruent with local conditions, including consideration of sustainable appropriation quotas | | |
| 3. | Collective choice arrangements | Individuals affected can participate in modifying operational rules | | |
| 4. | Monitoring | Monitors are accountable to the resource users | | |
| 5. | Graduated sanctions | Increasing sanctions apply for against repeat and/or serious rule violators | | |
| 6. | Conflict-resolution mechanisms | Ready access among resource users to low cost conflict resolution process | | |
| 7. | Recognition of rights to organize by external government authorities | Resource management institutions are recognised by government authorities | | |
| 8. | Nested enterprises | Governance activities are organized in multiple layers of nested enterprises | | |

All Ostrom's eight design principles are about making collective action problems more likely. The purpose of the collective action is to make rules and norms that govern the use of community members. To make collective action more likely, the Design Principles make sense in the context of rotation monitoring, license, mandatory meetings or sanctioning fines. Also, essential is to understand the social relations that shape a commons system inside the commons in relation to external systems. How are the boundaries clearly defined and decided? Who are excluded and why and how is the temptation to free ride in regard to the CPR system dealt with? Does a commons system need sanctions, or why not? And how? (De Angelis, 2017, p. 163).

2.6 Concluding remarks

The communities Ostrom has studied have managed the Common Pool Resources locally driven by a concern for local resilience. Today's community-based entrepreneurs, however, are driven by a larger ambition to advance global-scale change. Therefore our study focuses on how these community-based entrepreneurs manage local action while aiming for global systemic change.

3. Methodology

3.1 Research Design

The aim of this study is to contribute to obtaining a more open understanding of entrepreneurship as a catalyzer of economic systemic change. It does so through the focus on a single case study: Sunnemo eco-village in Sweden. Since limited theoretical foundation exists in the area of this study, the aim is to contribute to and expand existing theory on how common-based economies such as eco-villages are governed to drive environmental and social change. In this manner, the study is designed qualitatively and inductively (Bell, E., Bryman, A. & Harley, B., 2022).

In this thesis, a single-case study design was chosen since the authors' aim is to contribute toand expand existing theory (Eisenhardt, 1989). Besides, a single-case study design is appropriate since it is not dependent on established theories and therefore provides research with increased flexibility (Eisenhardt, 1989). By applying a single-case study approach, this thesis was able to incorporate direct participant-observations and unstructured interviewing with the selected case (Baskarada, 2014).

We apply a single-case study to Sunnemo eco-village in Sweden. We will further elaborate on the selection of this particular eco-village in next section, 3.2 Case selection. We implied an ethnographic inspired research method that allows to immerse in the community, observing the behaviours, interactions and practices of the community members within its shared culture, conventions and social dynamics. Our research is ethnographic inspired as we were only able to stay for seven full days. The goal is to gain deep understanding of the community's culture, beliefs and practices from an 'insider' perspective. The advantage of ethnography is that it gives the researcher direct access to the culture and practices of the community. It is a useful approach for learning first-hand about the behaviour and interactions of people within a particular context. Ethnography is also an open and flexible method, therefore understood as inductive research (Genzuk, 2003). By becoming immersed in a social environment, we have access to more authentic information and spontaneously observe dynamics that we could not have found out about simply by asking (Genzuk, 2003). In ethnographical studies, the main strategy is purposive sampling of various key informants, who are most well-informed about a culture and are able and willing to act as representatives in revealing and interpreting the culture (Moser, 2018). We are conducting a purposive method because we want to focus in depth on a single eco-village (Bell, E., Bryman, A. & Harley, B., 2022). Additionally, this research uses theoretical sampling, a variation of purposive sampling, meaning it involves following the data to expand and refine the evolving theory during the analytical process. Rather than aiming to verify a general theory or hypothesis, it aims to offer a rich narrative account of a specific culture, allowing exploration of many different aspects of how the selected community governs its common-based economy.

With the support of the eight design principles framework by Elinor Ostrom (1990) this study investigates how Sunnemo eco-village governs a common-based economy to reach environmental and social change.

3.2 Case Selection

We selected the case by looking at the following criteria:

Criterion 1: The main incentive of the eco-village is to drive environmental change by practicing a self-sustaining lifestyle.

Criterion 2: A community participating in a common-based economy where all goods are shared.

Criterion 3: Small-medium size eco-village (10-30 members) so that we could interact with each community member within the restricted timespan.

Criterion 4: English-speaking community.

Criterion 5: Part of the network of Swedish eco-villages.

In order to draw inspiration from organisations that reduce the depletion of natural resources, criteria 1 is intended to guarantee the eco-village's goal to be or become self-sustainable. Criteria 2 is designed to ensure the community makes use of a post-capitalism economy, in which the community becomes regenerative through sharing and co-operation. The third criteria is stated to make sure that it would be possible to for us to comprehend the community by being able to speak with every community member. Criteria 4 is established to be able to communicate with the community members and find understanding through a common language. The fifth and final criterion is laid out to improve generalization validity. Even though on eco-village cannot serve as a model for other eco-village communities, a large network could strengthen common governance structures.

3.3 Data Collection

3.3.1 Participant-observation method

To gain an in-depth understanding of the community and its residents, we applied the participant observation method. We asked to stay over in the community and begin to participate fully as volunteer in community events, such as daily work tasks, diners, and social gatherings. We also engage in everyday activities, such as making sure the entire community has heated houses at the end of the day and we planned this summer's harvesting in the communal garden. Over the course of one full week, we observed and took notes on the social interactions, customs, and beliefs of the community members, conducting informal interviews with individual residents to gain further insight into their experiences and perspectives. Through our observations, we gained a deeper understanding of the community's culture, including its values, traditions, and social hierarchy and governance. We use the data collected to develop theories and insights about the community and its role in relation to creating a common-based economy. While participating in the daily tasks and gatherings, it allowed us to bond with the community and the conversations, or unstructured interviews flowed more naturally.

3.3.2 Unstructured interviews

Interviews are one of the most adopted forms of data collection in single-case study research (Pearse, 2019). Unstructured interviews allowed us to obtain personal information. By conducting one-on-one interviews, we were able to apply an exploratory way of collecting the data. Further, this way of collecting data allowed us to ask additional questions to introduce more detail and nuance (Pearse, 2019). Unstructured interviews also reduced the risk of bias.

3.4 Data Analysis

3.4.1 Participant-observation

Our analyzed data through participant-observation is structured as follows. Firstly, we organized it by primary observations such as the time of day, location, present actors and sequences of events. Secondly, the secondary observations such as statements by others. Further, experiential data of our own emotions and reflections and lastly the circumstances such as the background information of the eco-village and its key roles.

We then create categories of the eight design principles for managing the commons (Ostrom, 1990) to organize the data. This helps with identifying patterns, behaviours, and interactions that are relevant to our research question. In turn, the eight design principles guide to form a coding system that labels or "tags" the aspects of the data that we want to focus on. These

principles can be seen in specific behaviours, emotions, or social interactions— which helps to identify connections between different elements of the data collection.

3.4.2 Unstructured interviews

Due to the open-ended nature of unstructured interviews, we proceed with thematic analysis. In thematic analysis, we aim to identify common topics, ideas, or patterns in the empirical material. We finalized the unstructured interviews when arrived back home from the field trip in March 2023. After, we coded the empirical material according to the eight design principles by Elinor Ostrom (1990).

3.5 Limitations

Ethnographic research is often a time-consuming method. To embed ourselves in the setting and gather enough observations, we had to spend more than a week, more likely several months in the eco-community. Therefore, this research is ethnographic inspired. A consequence is a lack of information in a lot of areas due to the short stay (Genzuk, 2003). Further, ethnographic research can run the risk of observer bias. It involves subjective interpretation, and it can be difficult to maintain the necessary distance to analyze a group (Genzuk, 2003).

3.6 Ethical Considerations

There are often ethical considerations to consider: for example, about how your role is disclosed to members of the group, or about observing and reporting sensitive information. Further, active participation runs the risk of disrupting the regular functioning of a community (Genzuk, 2003).

Before and during the integration within the community of Sunnemo eco-village we informed all community members that they are free to choose whether they want to participate and they could choose to not be part of our research anytime they wanted. We informed them our research aims to understand their governance of the community. Additionally, as researchers we considered all possible sources of harm to participate. This include, doing good and no harm and protecting fairness, wellbeing, safety and dignity of the community observed during the research.

4. Setting: Eco-villages: an example of reorganizing the economy on a smaller scale

4.1 What's an eco-village?

Eco-villages are examples of bottom-up approaches to creating value. Where our economy is focused on creating economic value, eco-villages are focused on creating environmental and social value. The eco-communities are also focused on creating economic value but this is not their main incentive. They work within a common-based economy in which they use currencies of self-made products or services to trade. The communities exist out of diverse people with a range of different skills which brings value to the community and the possibility to grow. Due to a common-based economy and co-housing it is possible to save costs. At the same time the community creates value by combining different skillsets and providing services to the community. Over time eco-villages have evolved and developed, starting from environmental awareness and emphasized social life, to sustainability, community, shared work and innovative technical solutions. Particularly technical solutions, such as producing their own energy, have drawn increased interest (Magnusson, 2018). Just as the first generation, the fourth and current generation of eco-villagers have a great focus on agriculture and permaculture (Magnusson, 2018). The initiatives of eco-villages are interlinked with the global awareness of climate change (Magnusson, 2018). A remarkable phenomenon in the raise of eco-villages during the fourth generation is the initiation from people without any construction background (Magnusson, 2018). Additionally, they are more diverse in form of organisation, meaning they are evolving and developing with distinct values. Still, the majority of eco-villages are concentrated on achieving or sustaining self-sufficiency while producing social benefit. These purposeful, locally owned traditional or urban communities that address the social, ecological, and economic facets of sustainability do it through local action. Through grassroots innovations and movements, transition movements, transition towns, and other small-scale and local climate change initiatives, community organizations are becoming more active.

4.2 Sunnemo eco-village

Sunnemo eco-village originated in 2017 by the initiative of Johan Erle, extended community member of Ängsbacka. Ängsbacka is a course and festival centre for personal and spiritual growth located in Molkom, originated in 1996. He learned from previous experiences in the

business world as restaurant owner of three restaurants in Gothenburg and has lived at, and visited multiple eco-villages. He has worked as a marketing manager in Ängsbacka, a neighboring eco-village of 200 people, where he focused on organic farming. For the last 10 years, he runs a business of Probioform — concentrated fermented food supplements. For the community, Probioform is a significant source of income and a means of creating economic value. The farm is situated on 67 hectares of land beside a lake in the town Sunnemo, this area of Sweden is known for its organic farming. Three members of the community reside on the farm itself, these are Resa, Pekka and Johan. While the other five do so nearby namely, Josefin with Jonas, Peter with Bea and Lisa. It is a very young community with endless potential to grow. Everyday all community members are invited to have dinner together around 19:00 at the farm. They maintain the community and it's land by providing services themselves in combination with inviting volunteers in exchange for knowledge, shelter and food. They teach volunteers their lifestyle with the intention to inspire them and start their own projects in the future.

One of the top priorities each year is using permaculture to improve soil quality. Another priority is the maintenance of the energy system of the café and the houses at the farm. In addition to this, the community is required to care after about 120 chickens. All these activities are part of becoming self-sustainable which is their main purpose. They do so by prioritising value for the collective good while satisfying the individual needs as much as they can. The community has several projects focusing on sustainable living such related to permaculture, building with natural materials, renewable energy, eco-tech laboratory and a small workshop place (for up to 20 people). In September 2022 they opened Trädgårdscafé which has been open every weekend for visitors. The café is another source of income for the community. Coming summer, their plan is to open the café every day.

The community is engaged in a healthy and conscious lifestyle in which they are yearning to a life in balance with nature. The community eats from the food produced at the farm and additionally they buy products from the supermarket or from farmers nearby. Sunnemo ecovillage is a drugs and alcohol-free community. They are part of a larger network of ecocommunities in Värmland and exchange a lot of services and products with other people. Decisions within the community are made collectively in which every individual has a voice. The community can therefore be seen as a flat organisation form in which there seems to be no fixed hierarchy. Sunnemo could be seen as a standalone initiative and as a part of Ängsbacka extended community.

Table 3 Community of Sunnemo Eco-village

| Name | Time at the eco- | Living situation | Side job | Additional |
|-------------|--------------------------|----------------------------|----------------------|--------------------|
| | village | | | information |
| Josefin and | Josefin was the first to | Building a house at 500 m | Josefin is craft | Together they have |
| Jonas | join in 2018. She met | from the farm. Currently | teacher and Jonas | a daughter Doris |
| | Jonas at the farm in | staying in a smaller house | works as a | Josefin is Swedish |
| | 2019 | 100 m from the farm. | programmer 8 hours | and Jonas from |
| | | | a week. | Norway |
| Bea & | Since 2020 | Bought a house 30 minutes | Bea works as a full- | Both from Germany |
| Peter | | walking distance from the | time programmer | |
| | | farm. | | |
| Lisa | Since 2020 | Bought a house 15 min car | Does projects at the | From Germany |
| | | ride distance from the | side - hours | |
| | | farm. | | |
| Pekka | Since 2019 | Farm | No | From Finland |
| Resa | Since 2021 | Farm | No | From Netherlands |
| Johan | Since 2017 | Farm | ProBioform | From Sweden |
| Jochem | Now and then | Molkom | | Extended |
| | | | | community - friend |
| | | | | of Johan |

4.3 What commons are identified in Sunnemo eco-village?

The commons that are identified in the common-based economy of Sunnemo Eco-village are common spaces like the sauna, Trädgardcafé, the community house, the treehouses, the toolshed and the garages (Figure 1). The community shares the 67 hectares of ground on where they harvest different vegetables, fruits and herbs during the year. All food grown and bought from local suppliers is commonly shared within the community. The community chops wood from the forest to create energy for the common spaces and private rooms. They swim in the lake and organize small gatherings at the beach. Additionally, the community co-works on

several projects during the year like building and gardening. They care for each other and maintain social connections by interactions.

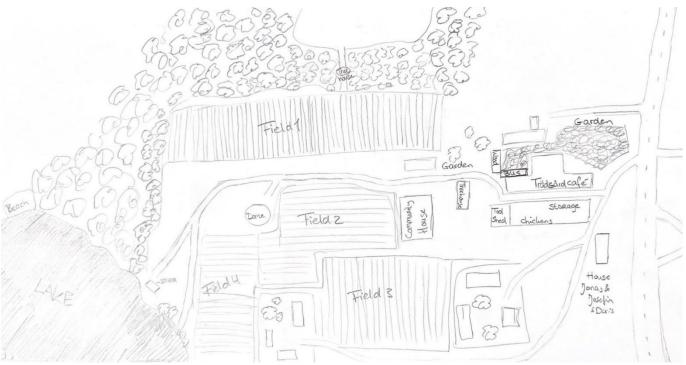


Figure 1 Layout Sunnemo eco-village

5. Findings

The following findings are derived from our observations as volunteers during our stay at Sunnemo eco-village. They explore how the community governs the community's common resources, who is allowed to withdraw from which resource, and who is authorized for the commons. First, this chapter elaborates on who is allowed to join the community, where after it forwards how the community is governed while inviting external visitors continuously.

5.1 Who is allowed into the community?

Sunnemo eco-village is an alcohol and drugs free community. According to Johan, the founder of Sunnemo eco-village, the reason for setting this community boundary is because of previous experiences with other eco-communities like Suderbyn eco-village, that does allow the consumption of alcohol and weed:

Johan: 'In other eco-communities in Sweden, people always have a lot of plans, but not that much gets done. For example, at the eco-village Suderbyn there are many people who smoke weed and although they talk about having a lot of plans, not that much actually happens. Their community is more chaotic. 'In general, we don't accept people that use alcohol and drugs. Because we have experienced in other eco-villages how this influences people on their behaviour. A lot of stoners for example have a lot of creative ideas but in reality, not so many come to realisation. We think it would not suit our community.' (Field notes)

Within the community boundary to exclude visitors from consuming alcohol or weed, everyone is still welcome to visit the eco-village in Sunnemo. This also got confirmed in a conversation with Johan.

Johan: 'Everyone is welcome to visit Sunnemo always. Anyone who is interested in how we live here we would love to show around. We hope to that what you can learn here inspires you to build your own projects.' (Field notes)

In line with the finding that everyone is welcome at the Sunnemo eco-village, we also found this in the following conversation:

Johan: 'Our openness to allow anyone to have a look at our community is a reason we built the café, we want people to feel welcome and get to know our lifestyle and what we do here.' (Field notes)

Even though anyone is welcome to visit, the community sets community boundaries that indicate how one can be completely integrated within the community. This process starts with Johan and Resa, who manage the social platforms and contact people who would like to stay at the community temporarily or permanently. The community is always looking for volunteers to help out with maintaining the eco-village. They created a profile on diverse platforms such as *Wwoof.se*, *workaway.info*, Instagram and Facebook, to connect with anyone that is interested in the community. On such platforms they publicize themselves by showing pictures and a written introduction of who they are and what projects they are planning to work on depending on the seasons. The community is always open to connect but if someone wants to join the community, whether this is temporarily or permanently, they base their decisions within defined community boundaries. We will further show our findings of when one is allowed into the community and what rights, benefits and expectations this brings accordingly.

5.1.1 Temporarily joining the community

Before inviting someone to be part of the community, we outlined in a few conversations what the community perceives. First, they look at the intention of the person wanting to stay. Why does someone want to join our community? Does he or she want to stay temporarily and for how long? According to Johan and Resa, most people would like to stay as volunteer at a temporarily bases. If someone's intention is to join the community permanently, the process of acceptance from the community is longer, we will elaborate on this further in 5.1.2. The community asks this information to make an estimation of the right fit for the period of time someone wants to stay in relation to projects. In addition, the contact helps to get a rough estimation of the personality of the person. In addition, the community wants to find out if the person in question might have skills that come in handy during future projects, like building, marketing, cooking or gardening. Depending on the season, sleeping places, diets and projects they decide if it would be possible to stay. In our own experience we first had online contact via *Workaway.info* where after we planned a call with Johan to find out if we would be a right match. They explained they call with everyone before inviting them into the community and we saw and heard them calling with many people during our stay.

Johan: 'Selecting volunteers depend on a lot of things. For you, how we selected you, was having a heated place for you to sleep in the winter, but also the fact that you did not have any diet wishes really. Because you are staying for a very short time (a week) and our community has to adjust upon having dinner with you. If there are too many diets at the same time, we have to consider that is not doable for us. Regarding sleeping places, we have the dome in which people who are familiar to each other could sleep together. Then we have two rooms at the treehouse

Resa built. In summer six people could sleep in the bus and we have two caravans. And there are many possibilities to camp on our terrain.' (Field notes)

Even though the community has all kinds of diets within the community like eating meat, vegan and vegetarian, they still take into consideration if adding another diet would cause too much adaptation in relation to the time someone would like to stay. Johan further elaborates on what decisions volunteers are selected to join the community temporarily:

Johan: 'This Summer will be the first in which we open the café every day and therefore we are looking for volunteers that are able to stay at least the whole month of July, preferably earlier on, because we don't have the time to introduce a lot of new volunteers to our way of living and maintaining the community.' (Field notes)

Still, if the volunteers are matching with the community's schedule at a certain time in the year, there are also other community boundaries taken into consideration as derived from the following conversation with Lisa:

Lisa: 'In the community we have different people with different skills. Pekka for example likes to build, while me and Resa like to be involved in the garden and the café. Peter has a lot of knowledge about electricity, and he has helped us a lot the last years. We would love to have people who can enrich our variety of skills. Right now, in March, it's still winter therefore we are looking for volunteers that are not afraid to chop firewood for 5 hours a day so that our houses can be heated. Later in the Summer we need more people to maintain the organic garden so that we have enough food for the rest of the year' (Field notes)

Thus, the community is also aiming to include volunteers that bring a particular set of practical skills. The skills that the community requires from volunteers are shaped by the local circumstances on the season of the year. In the winter the community needs volunteers to mostly to chop firewood to heat the houses, whereas in the summer the community rather needs volunteers to maintain the garden and prepare the food supply for the rest of the year.

After Johan agreed that as volunteers, we were the right match because we could bring the skills that were needed that week, he tested our political opinions. Later we found out he was only testing if we were troubled by his strong political opinion because of an earlier conflict. The volunteer got sent away to a different eco-village within their network. Lisa further explained that there are no conflicts between different political opinions within the community. In fact, there are even different political opinions. In the following dialogue with Lisa and Johan they explain that the community's main incentive is that everyone respects each other's opinion and in what they want to believe.

Johan: 'Once we had someone that was really bothered by our political view. We acknowledged it wasn't a match, so I send him to another eco-village namely, Suderbyn. We thought he would be a better fit there.' (Field notes)

Lisa: 'In the community everyone has different opinions about things like climate change. In the beginning we had more discussions about this. But we don't know who is right or wrong and for me it doesn't matter if the world is round or flat. This is of course an extreme example, but I use it as a saying. I learned to let go and I'm not interested in who is right or wrong anymore. It's something that I've learned during my time at the eco-village. Attached on other opinions and don't take yourself too seriously. Especially when new people come here, they want to prove themselves. Where I used to go into a discussion, now I just let it be.' (Field notes)

5.1.2 Permanently joining the community

To process of joining Sunnemo eco-village permanently is much harder than becoming a volunteer or visitor. Lisa told us about her journey into the core-community. She explained that she already knew Johan and Pekka from Ängsbacka, another eco-village nearby Sunnemo, and decided to visit the Sunnemo community to see what they had built in 2020. In agreement with the community, how it was formed at that time, she was welcome to stay permanently.

Lisa: 'I have lived in Ängsbacka in 2017 and there I met Pekka, Solomon and Fre (who lived in Sunnemo in 2020). In 2020 I went back to Ängsbacka and I went to visit Pekka and Solomon. And at that time, I had already quit my job in Germany, I knew I was going to stop in November that year, it was July. And I was already looking for some kind of alternative living. I did not really know what I was looking for to be honest. But then I went there, and I was quite impressed by what they have been able to build up in those few years. I was quite impressed and then I visited a second time, later I asked if I could stay over for the winter. They discussed it in the core-community back then and they were all okay with it. So, I moved in and then I never left. In my case it was that I was having contact mainly with Johan about it and he talked about it with the others, so I don't know how that happened. I think he brought it up in the practical meeting. They all agreed on it and it was okay.' (Field notes)

She then also explained that there has also been an example of someone who really wanted to be part of the core-community but did not get accepted. She explained it did not work out in terms of skills in combination with lack of agreement from all permanent living community members.

Lisa: 'It's hard for new people to come in, in a deeper level because we are already so formed in a way that we are right now. It has taken a certain form. Everyone is welcome to be involved and listened to, but to really get in, I think it's not so extremely easy. Social aspects, working aspects, knowledge that you bring, knowledge that is needed in the community all play a role. Being able to take responsibility for your own self in combination with the social aspect and the working aspect, is really important.' (Field notes)

Lisa: 'Now we haven't had anyone who asked for a long-term stay for quite a while. We had one person and basically, how we handle it when someone really wants to stay long-term. We normally say that this person is supposed to leave after a while so both sides can see if it could work, so we take a little break. This one person

from Germany didn't work for us. He really wanted to stay, but we couldn't give him what he would have liked to do. He would have liked to do forest maintaining and that was also his job, but we needed something different. So basically, it wasn't a fit.

Merel H: 'So, in terms of skills it wasn't a fit?

Lisa: 'Hmm yes in terms of skills and we discussed it in the weekly meeting. If someone wants to stay, we discuss it in the group and then everyone can share how they have experienced the person and describe if it can be a fit or not. And then we decide it together.' (Field notes)

In sum, it is more difficult to assimilate into the community the more deeply one wants to. Aspects need to align with achieving their vision of becoming self-sustainable in order to be allowed to join the core-community. The community should benefit from the new member's skills and use them in future endeavors. Intention, personality, skillset, and duration of stay are the major four factors that have a big impact on whether or not someone is accepted.

5.2 For whom are they managing the commons?

When one is involved within the community, whether this is permanently, temporarily or solely for a short visit, there are different levels of integration, governing and having access to the commons. Our findings aim is to understand these different levels to explore the community boundaries at Sunnemo eco-village. Through understanding these different levels of integration, we aim to find how local action is balanced with a global focus. As shown in Graph 5.1, the four different levels of integrating within the Sunnemo community is visualized:

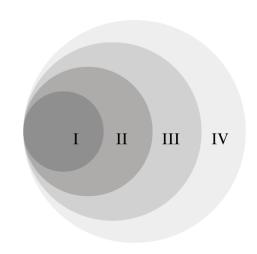


Figure 2 Level of access to the core-community's commons

- I. Core-community
- II. Volunteers
- III. Extended community
- IV. 'Outsiders'

The findings are structured by finding answers to 'who is allowed to take from what commons?' And 'what is the level of governing these commons?'. Firstly, we illustrate the findings of how the community defines who has access to what commons and how these are governed. Continuously, we explored how I. the core-community sets community boundaries for the II. volunteers, III. the extended-community and IV. the Outsiders.

5.2.1 Core-community

The core-community arranged the provision of the commons as described in Chapter 4 'Setting'. As explained in Chapter 4, Johan bought the farm and built the community over the past five years together with anyone involved. The community is governing its commons with eight members that identify themselves as the 'core-community'. All core-community members are permanently living at or nearby the farm. Every day they are invited to the communal dinner. On top of that, they are all active in the maintenance of the community, some more than others. Consecutively, the community integrates volunteers, prior community members or friends of the community they refer to as 'the extended community' and people that visit the café or are interested in a tour around the community, they refer to as 'outsiders'. By giving individuals outside the core-community access to the commons, the community aims to balance local governance with a greater extent.

5.2.1.1 Who has access to the commons within the core-community?

The daily activities of the community are all centred around the incentives of maintaining the community and preserving the sustainability of the commons. The following conversation with Lisa illustrates how the core-community organizes their common-based economy:

Lisa: 'We are all investing in something that has a future for ourselves. Our shared incentive is to sustain ourselves entirely with the farm so that none of us has to work on the side. All community members have the same voice and the fixed costs are always covered with the incomes of the cafe. The starting fee for each community member was 1000 SEK from which the first ingredients were bought. After building the cafe together, the incomes of the cafe are hopefully covering the goods that we purchase outside the community. The entire core-community and volunteers that help us at that moment can take anything that comes from our farm like vegetables, eggs and wheat. Without Johan's company Pro-Bioform, the farm would have never existed in terms of building the community house and garden, but currently the cafe is the only source of income so that everything becomes equal. We believe that if one person pays more for anything, there is an imbalance within the community, so we prevent this with the income of our communal cafe.' (Field notes)

Although Lisa illustrates that all goods from the farm can be subtracted by the individuals that actively participate in the daily activities, thus the core-community and the volunteers, she further elaborates on different community boundaries when it comes to goods that are purchased outside the community such as groceries for the dinners.

Lisa: 'Jonas and Josefine are part of the core-community, but they both have jobs on the side. Jonas is a programmer and Josefine works as an art teacher at the local primary school. While they also have to take care of

their one-year-old daughter Doris. They don't have and want to make time to participate with the daily activities such as chopping wood, harvesting vegetables and maintaining the buildings. This has consequences for their rights on the goods that are purchased outside the community. Most of the groceries that are purchased for the communal diners in the winter are bought at the local supermarket, because we have a lower supply of vegetables from our garden. For Jonas and Josefine this means that they purchase the groceries when they have their cooking duties, and they pay an extra fee when others' buy groceries.' (Field notes)

Hence, when a community member doesn't participate in the daily activities, they lose their right to benefit from the groceries that are purchased from the cafe's income. The following conversation with Peter further demonstrates how community members take different benefits from the community's goods that are purchased outside the community.

Peter: 'My wife Bea works remotely as a programmer from our house, a 30-minute drive from the farm. Whenever there is a technician needed at the farm, I'm always available to help. When I'm maintaining our own house and someone from the core-community calls for action, I will prioritize that the community needs my expertise. Also, at the cafe, I'm in charge of the technical issues that occur. My contribution to the community as a local technician gives both Bea and me the benefit to not pay for the external purchases.' (Field notes)

This finding shows that Peter's skills give him access to all the goods from the core-community. The above conversations illustrate that different community members have different access to community resources depending on their participation in daily activities.

In a conversation with Lisa, she further explains the situation where Jonas and Josefine are excluded from a part of the external purchases.

Lisa: 'As being part of the community, it's not always about what you put into the community like labour, purchases or skills. Jonas and Josefine are not participating in the daily activities, but they are always present at all social events. This makes them as much part of the community as the ones that work more than 5 hours a day on maintaining the community's resources. Before they had Doris and their building project for their own house, they were much more active in helping with maintaining the community. We found an agreement with them in which they are still joining us every day for dinner without helping out in daily tasks for the community. At the weekly sharings where we talk about emotional and practical occurrences, Jonas and Josefine are also not participating anymore.' (Field notes)

There are different ways the community makes such decisions on the responsibility and governance of the commons which is further elaborated in the next two sub chapters.

5.2.1.2 Community Sharings

Every Tuesday the community talks about emotional and practical occurrences at the weekly sharings. Anyone in the core-community is welcome to join the weekly sharings. The active community is participating in this meeting, meaning everyone that is around the eco-village at that time. Volunteers are excluded from this meeting and occasionally extended community members attend this meeting. Everyone has a chance to check in with the other participants by expressing how they are feeling without anyone replying. Following their emotional exchanges, the community's upkeep in practice is examined. For instance, what type of crops they want to harvest the coming season. Josefin and Jonas are no longer included in the sharing, as was already mentioned. In the past they were more actively engaged in the community's everyday duties and participated in the sharings.

Lisa: 'I was part of the sharing from the beginning basically. Because I never came as a volunteer, and I knew the people already from Ängsbacka. In the sharing everyone gets a moment to explain how he or she feels. After this, we discuss all practical things. For the café we have a separate meeting, ones in two weeks. The sharing in Ängsbacka has a bit of a different purpose than in Sunnemo.' (Field notes).

Jochem, an extended community member of Sunnemo ecovillage and Ängsbacka explains:

Jochem: 'The sharing is something invented by Ängsbacka in which everyone gets time to explain their feelings and what is going on inside without anyone responding. Sunnemo is a lot smaller than Ängsbacka and the sharing in both communities has different goals. For example, in Ängsbacka 200 people might come visit for a festival during a week. Each individual gets their own sharing group from around 6-7 people, and this is your little family for that week. You meet up every day in which each individual gets a certain amount of time to express their feelings without anyone responding. This brings people closer to each other. The sharing at Sunnemo is only attenable by the core-community who lives there permanently. It's an emotional based meeting in which everyone also has room to express their feelings without anyone responding. It's different because the people from the core-community at Sunnemo are much more familiar to each other than the people at Ängsbacka. They see more patterns in each other and themselves because they have spent much more time together. Another thing is that Sunnemo has a different purpose than Ängsbacka. Sunnemo is a hardworking community and wants to become self-sustainable.

I also attended a sharing at Sunnemo. After everyone had the chance to share their feelings. The participants discuss practical things like projects on the farm. An example could be which vegetables they would like to sow. They decide things together in which everyone has to agree, a sociocracy way. The sharing is more focused on the emotionally side, but the weak point is that sharings don't resolve conflicts because it resolves as much as the speaking individual wants to resolve. It brings people closer together and ensures that they understand each other better. But it won't resolve conflict very quickly.' (Field notes)

Jochem and Lisa both acknowledged that the sharing of Sunnemo does not function the same in regard to how Ängsbacka use these sharings. First, they don't resolve any problems or

conflicts, and second, Sunnemo uses the occasion to talk about relevant practical issues pertaining to govern and maintain the community.

5.2.1.3 Responsibility

Our findings demonstrate how the core-community governs the commons and who is accountable in the discussions that follow. The process of choosing who is in charge of maintenance and construction of the commons in the community is quite natural and unrestricted. What they wish to work on is decided by the core-community members themselves. They only briefly discuss this during the sharings. You must accept responsibility for your actions in this community. Lisa revealed that after overseeing the garden for two consecutive summers, she decided she did not want to continue doing so for the following season. She shared this with the other members of the core-community, and another member of the community naturally took over.

Lisa: 'How does it happen that people take on responsibility? Well, they just do. It is like this. How it is defined is you just do things and suddenly you have the responsibility. I never said, "I'm not going to take the main lead in the garden", I just did, it just happened. The same as it happened that I did not take the responsibility the third year because I wanted to be more involved in the café and I also have some jobs next to this. We just read the signs of what we think the community need and act upon it. It's also possible because we know each other's well in the core, it goes hand in hand. I always want to be involved in the maintenance of the community and believe that our community has a future to become entirely self-sustaining. This shared community incentive always leads to everyone taking responsibility for where the commons need most sustenance and governance.' (Field notes)

Thus, the community takes automatic responsibility for the commons that need most maintenance in a specific moment as the main incentive of all community members is to sustain their resources. Lisa further explains how the community members take responsibility for governing the community's commons:

Lisa: 'Everyone has responsibility for themselves, you have to express when you need a break. And, if you are part the core-community you have to take a break yourself. Other people acknowledge we are a hardworking community, so it's important to be self-aware of your limits as core-community.' (Field notes)

Our findings show that the community takes on responsibility very naturally and is dependent on what commons need most governance circumstantially. The responsibility is followed with local action.

5.2.2 Volunteers

5.2.2.1 What commons can the volunteers' access?

As a volunteer you will be naturally included in the daily life of the community. Volunteers contribute to the maintenance of the community by working in places like the café and the farm. The main incentive of the core-community to invite volunteers is to inspire others to replicate a similar way of living:

Johan: 'We hope that what you learn here inspires you to build your own projects.' (Field notes)

The volunteers might be working on building projects, gardening, or helping out in the café, among other things. They are required to work more or less five days a week for five hours each day. The community is adamant about not wanting to have a 9–17 job as explained by Johan:

Johan: 'We don't want to work all they, so we have time to dance.' (Field notes)

While volunteering on the farm the community will teach them about their lifestyle by sharing knowledge about building projects and permaculture. Volunteers also help out in the café by baking cakes and serving as a waiter or barista. In exchange for their help, they are integrated into the community. They are provided a sleeping place and are invited to eat together three times a day with the rest of the active community. In addition, they provide clothing if needed, for example Johan made sure we had the right clothing and shared two working pants. In exchange for helping to maintain the community, volunteers have permission to the community's commons like the community-house, sauna, café, community dinner, food, herbs from the garden, wood to heat up the fireplace for your room or the common spaces and clothes from their storage.

We discovered that the five-day workweek's scheduled hours were more of a guidance than a rigorous requirement. We did not work for exactly five hours every day, and we mostly completed jobs for our own satisfaction. Pekka even said:

Pekka: 'You don't have to work; you have to want to work.' (Field notes)

The majority of the time that we volunteered, Johan chose what our volunteer duties could be, although occasionally Pekka and Resa made this decision together with us. The everyday tasks at the farm are managed and assisted by all three of them. They would share their ideas for what

could be done that day to maintain the farm and community well. Then, before lunch, they would ask who wanted to perform which task. After more or less an hour-long lunch break, we were given the option of moving forward with the same tasks or changing. Each task was divided after consulting with the volunteers. Depending on the weather, a given day's task could change. We would do something outside when it was sunny and were invited to help in the tool-shed or the café when it was snowing. While dividing the tasks, the core-community didn't set any clear goals for that day. Most of the time during the day it was decided together with the volunteers what to finish for that day.

As volunteers we were allowed to take as much food and drinks as we wanted from the community-house. This didn't count for the kitchen in the café. All the products located there were for the café.

Resa: 'In the summer we harvest our own vegetables which are used for dinner and lunch. We always try to get as much for the community produced by ourselves and we hope one they to be fully self-sufficient. Currently we are buying things from the supermarket to complement our food to be enough for the community, but this is not ideal. Volunteers are free in when and what they want to eat, but we would like everyone to have breakfast and lunch together.' (Field notes)

5.2.2.2 What is the level of authorizing these commons?

Depending on who was present on the farm, the core-community would be in charge of assisting the volunteers. Johan assisted us in cutting wood on Monday, while Resa and Pekka oversaw the volunteers on Wednesday. On Friday Lisa and Resa together planned for what should be baked that day for selling in the café over the weekend. In consolation with the volunteers who either had prior baking skills or were interested in doing so. As volunteers, we had the freedom to choose the recipes we wanted to prepare, as long as they included at least one vegan pastry.

Further, we also volunteered with maintaining the entrance of the main community-house. Earlier in the week Pekka was already constructing the new entrance, while we were doing other tasks such as wood chopping and bringing the firewood to the community houses. Later in the week, on Pekka's free day, Pekka asked if we could continue on the community house. Even though we got very little instructions, we were authorized of that resource on that specific day, and we could choose how to proceed with the maintenance of the entrance.

Roles continuously change within the community. Lisa has been in charge of the garden for two years, but this past year she wasn't involved at all. She grew into being more active in the café and is currently managing what is going to be baked in the café for the community and for sale. She does this together with Peter and Resa. They are all free in making daily decisions for the café and the kitchen.

5.2.3 Extended community

The geographical community boundaries of Sunnemo eco-village are larger than its own community. In the region, there is an eco-system of other eco-villages, sharing the same vision, that are intertwined and cooperate on a larger scale. We had a conversation with Jochem Meijer, an extended community member from Ängsbacka eco-village, who was staying at Sunnemo for a long weekend during our visit and explained how the extended community of Sunnemo is 'defined':

Jochem: 'Sunnemo could be seen as a standalone initiative and as a part of Ängsbacka extended community that is now about 200 people. The other examples of such an extended community are Backa Friskola (Backa Free School) in Molkom and a small-scale permaculture farm by Olle and Lisa. Sunnemo eco-village shares its resources with the 'extended community'. Everyone in the extended community and the 'core' community knows each other. (Field notes)

From this conversation, we found that Ängsbacka is the core of the eco-village's communities around Sunnemo. Ängsbacka is the foundation for individuals like Johan to initiate their own eco-village at surrounding farms. This is also found in the following conversation with Johan:

Johan: 'In the last couple of years, I've founded Sunnemo, a "satellite" community a short journey from Ängsbacka. Our aim is to create an eco-village for people who would like to settle down, build a house, raise their family and grow their own food. Currently, we are looking into producing food for Ängsbacka at Sunnemo - I would really like to see an expansion of locally grown food here and increase our collaboration and exchange.' (Field notes)

From both conversations, we derive that the extended community around Sunnemo that started with Ängsbacka community, is in close contact with daily activities at Sunnemo. From this finding, we asked Johan what such interactions look like and how this influence local action in the Sunnemo community.

Johan: 'We trade our goods such as firewood, vegetables and eggs with Ängsbacka. Whenever they have a surplus or shortage of a certain good, they ask our community to trade this for their available goods and vice versa. An example of this was two weeks ago when the sauna at Ängsbacka community wasn't functioning anymore

primarily because of the lack of firewood. They asked our community to share our sauna and extra firewood with them, this time not in direct exchange for any of their goods. We never directly asked for goods or services in exchange, but simply help them because we are all part of a larger community of eco-villages in the region.' (Field notes)

For our broader understanding of the Sunnemo community being part of a larger universality, we asked how far such an ecosystem is framed. In the following conversation with Jochem Meijer this was clarified:

Jochem: Ängsbacka is part of the Global Eco-village Network (GEN) that is organized by different eco-villages globally every year. Last year, the GEN was hosted by Ängsbacka, but in other years it was also in Denmark, Portugal or Italy. The shared purpose of this event is to grow a larger movement of eco-villages around the world and help communities and people to become active participants in the transition to a world that is regenerating rather than depleting the environment.' (Field notes)

In conclusion, the community's understanding of an extended community only includes individuals that have moved to villages nearby to be close to the Sunnemo community. Such extended community members are part of the 'core' community by exchanging goods and services. Apart from these trades between eco-communities, they are all part of a larger network of eco-villages globally where they share the same vision and help each other.

5.2.4 'Outsiders'

The opening of the café as serves as a local meeting point for anyone, including individuals that are not part of eco-communities, we refer to them as 'outsiders' (as Ostrom refers to individuals outside of the community). By opening the café, the community is also willing to give a tour and show and share their lifestyle.

Therefore, the community opens its community boundaries towards 'outsiders' by opening the *Trädgårdscafé* (Garden Café). Such an approach exemplifies the openness of the eco-village to share its vision with 'outsiders'. Illustrative of this is a conversation during the introduction of the cafe on the first day with Johan. This is what happened:

Johan: 'The Sunnemo Trädgårdscafé opened on the 3rd of September 2022. The community members build the cafe together and is connected to the permaculture garden where all goods come from. The vision of the cafe is to create a local meeting spot for anyone (including surrounding eco-villages and conventional villages and towns). We sell coffee and home-made goods. There is also a small room where the eggs from their chickens are sold. The cafe allows anyone to observe the lifestyle of the communities' economy.' The cafe is only open at the weekend

and year-round on special events. Further, it's also available for events such as birthday parties, family gatherings and meetings for people outside the community.' (Field notes)

A second example that illustrates openness towards collaborating with individuals and communities outside Sunnemo eco-village is the following dialogue with Lisa. In this conversation, she explains that the main incentive of the community is not to sell their goods to 'outsiders' but share their vision of expanding the eco-village by integrating individuals outside the community. Illustrative of this is a conversation with Lisa while preparing the café before the weekend. While Evers is preparing the cakes on Friday morning before the opening of the café, this is what happened:

Lisa: 'Our café is becoming more well-known and in the summer people from other countries such as Denmark, Germany and the Netherlands find us. Our neighborhood is one of the most organic agriculture lands in Sweden. Since 1984, this region initiated organic farming which influenced many people from other countries such as Dutch or Germans to move here. Our visitors pay in Swedish Kroner for the café goods, because they are not part of our community. Even though this means we generate an income, this is still not the main incentive for building the café. We find it more important that outsiders see our way of living and feel inspired.' (Field notes)

6. Discussion & Analysis

This research explores how community-based entrepreneurs can help reform resource management and address environmental issues by locally organizing a common-based economy while aiming for global systemic change. Our ethnographic inspired research is structured using the eight design principles of successfully governing local community action by Elinor Ostrom (1990). Alternative economies based on collaboration for regeneration. Given the abstract complexity of the governance of the eco-village and the limited time spent at the eco-village, there did not seem to be enough evidence of all eight design principles of Ostrom's framework for managing the commons in this single-case study. Instead, the findings show strong and comprehensive evidence of Ostrom's (1990) first and eighth design principle:

Design principle 1: 'Clearly defined boundaries individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself.'

Design principle 8: 'Build responsibility for governing the common resource in nested tiers from the lowest level up to the entire interconnected system.'

In this chapter we discuss the findings in which design principles 1 and 8 form the foundation.

6.1 DP1 - Defined boundaries within Sunnemo eco-village

The findings reveal that the community applies elastic community boundaries to balance their local common-based economy while allowing external visitors to replicate their model.

In one of the first conversations we had with Johan, our findings reveal that anyone is allowed to visit the eco-village is because "he hopes that others are inspired to build [their] own projects." This is an example of how Sunnemo eco-village aims to be open for anyone to visit their community to get inspired to replicate and adopt their lifestyle. However, later during our visit, our findings disclose that the community has both clear and elastic boundaries to preserve their local action of governing the common resources, while integrating external visitors within their community.

One community boundary is the prohibition of alcohol and drugs, which serves as the only non-negotiable boundary. This is set as a result of past experiences of community members in other eco-communities in Sweden, where such actions interrupted the community's goals. Sunnemo

eco-village prioritizes the focus on the maintenance and construction of the common resources with the collective aim to become completely self-sustainable. By prioritizing the process towards the self-sustainability of the eco-village, they show their commitment to local action.

However, other findings show that most community boundaries identified in our study are more elastic and shaped by local circumstances. The community's local circumstances are mostly seasonally dependent. We discuss multiple key findings that demonstrate how the elasticity of the community boundaries corresponds to the local circumstances. Firstly, the community only allows a limited number of individuals to join the community, depending on the community's capacity and willingness to include new members without becoming unbalanced. During the summer, there is a greater capacity to host volunteers because they are allowed to camp on the community's property. However, during the winter, there are only a limited number of heated dormitories available, which also requires a large amount of firewood. Second, the integration of new community members or volunteers depends on the compatibility with the community's values. Key findings show that someone's intention to join the community, skill set and personality have to fit the community's local circumstances so that local action can be preserved.

When someone is integrated into the community, there are still different levels of access to, and governance of, the community's resources. In our findings, we have distinguished these different levels into four categories: The core-community, volunteers, the extended community and 'outsiders'. By distinguishing the different categories, we discuss how the community boundaries are defined. We mainly focus on the core-community and the volunteers, because they actively participate in the daily activities of maintaining the community. Even though, the extended-community and 'outsiders' do not actively participate in the daily activities, they are sporadically integrated in the community's actions.

By drawing the four different categories from Ostrom's theory on community governance (1990), we first define the core-community as the 'providers' and 'producers' of the community. According to Governing the Commons by Elinor Ostrom (1990), the core-community can be appointed as the 'providers' because they arrange the provision of the commons. The core-community is also appointed as the 'producers' of the commons, because they construct, repair and take action to ensure the long-term sustainability of the commons itself in their daily activities (Ostrom, 1990). The core-community provides a sense of arranging the system and organizes how the volunteers can produce and maintain the commons. Our

findings reveal that there are elastic boundaries in the governance of the community's resources. The community applies a combination of collective and individual decision-making. Larger decisions are made collectively during weekly sharings, where volunteers are not allowed to join. Our findings show that even though the sharings are mostly meant for core-community members, sometimes an extended community member is allowed to join, like Jochem mentioned in a conversation. This is a significant example of the elasticity of boundaries. These sharings contribute to the larger aim of the community to become entirely self-sustainable. Smaller decisions are made by individuals depending on who is responsible for a certain common, although these responsibilities are never fixed, meaning the community members take ownership automatically where needed. The community's collective and individual responsibilities are made automatically where all members prioritize the maintenance of the community's resources over their own personal responsibilities. Thus, responsibility in the community is a natural process where all members actively participate in different activities. This clearly shows the commitment of the entire community towards their collective goal. Each community member understands that if one doesn't follow their responsibility, it would affect the collective good.

Secondly, the volunteers are responsible for being the 'producers' of the community, according to Ostrom's definition (1990). This was the case during our participation as volunteers. We participated in daily activities to maintain the commons for the collective good. In some cases, we were given authority for the maintenance of the commons, for example we were authorized to build the entrance of the community house and to bake cakes for the café. This finding reveals that we, as volunteers, were both 'providers' and 'producers' depending on the local and daily circumstances. In other cases, we were instructed by the core-community in consultation, for example when we chopped wood. Moreover, our findings illustrate that we were not authorized to everything in the community, as we were for example excluded from participating to the sharings. These findings exemplify a clear boundary between the core-community and the volunteers: the latter can contribute as providers by maintaining and authorizing the commons but are still excluded from the community's weekly sharings where larger collective decisions are made.

Thirdly, we refer to the extended community as 'the producers' of Sunnemo eco-village because they are also integrated within the core-community by maintaining and taking action to sustain both their resource system and the resource system of Sunnemo eco-village. When there is a shortage of a certain good in the community, they trade their goods with the extended

communities in the neighborhood, such as Ängsbacka. By doing this, both communities are acting to sustain the resource systems.

Lastly, in our study we refer to the visitors of the café as 'the outsiders'. The café exemplifies the openness of the eco-village to share its vision with 'outsiders'. According to the definition of Ostrom, the 'outsiders' are the 'appropriators' of the community by consuming goods from the café. The 'outsiders' pay in Swedish Kroner to the community, because they are not part of the community. Yet, the community's local action is not aimed to generate an income, but to share their way of living with the 'outsiders'.

These different levels of integration within the community confirm the importance of defined community boundaries, as researched by Ostrom (1990). Without the creation of clear community boundaries, there is a risk that the resources may be exploited. The community selectively allows individuals into the community based on whether their compatibility matches the local circumstances. Such local circumstances are constantly changing; therefore, the community boundaries are shaped and reshaped accordingly. Larger decisions are always only made by the core-community, where everyone else is excluded. In all collective decisions, the community lives by prioritizing the collective incentive to ensure the preservation of the community's commons while becoming entirely self-sustainable. Thus, this shared community goal serves as the baseline for how the community's boundaries are elastic, as long as it follows the local action to preserve its commons, while aiming for others to replicate their model.

6.2 DP8 - Nested enterprises

To highlight how Sunnemo eco-village balances local action with a global focus, our findings in Chapter 5.3 extended community show that Sunnemo eco-village exists within a larger network of other eco-villages in the neighborhood. These findings show evidence of Ostrom's eighth design principle, 'nested enterprises' (1990). We discuss how Sunnemo eco-village focuses on local action while also aiming for larger systemic change by using multiple layers of governance and co-operation.

In our conversations with Johan, findings reveal that "Sunnemo could be seen as a standalone initiative and as a part of Ängsbacka extended community, which is now about 200 people. In the last couple of years, I've found Sunnemo is a "satellite" community a short journey from Ängsbacka."

These findings show that some of Johan's incentive to found Sunnemo eco-village is inspired by Ängsbacka and he aims to connect a larger social-ecological system as he explains: "Currently, we are looking into producing food for Ängsbacka at Sunnemo - I would really like to see an expansion of locally grown food here and increase our collaboration and exchange."

According to design principle eight of 'Governing the Commons' (Ostrom, 1990), by nesting enterprises within one another users can take advantage of many organizations to better govern their resources. As our findings show, Sunnemo eco-village focuses on local action by growing local food while aiming for collaboration through exchanging goods within a larger network of eco-villages. In Ostrom's eighth design principle she explains that common-pool resources are connected to a larger social-ecological system, which forms multiple nested layers of governance. Our findings show that different ways of appropriating, provisioning and producing the commons are observed in different layers within the Sunnemo eco-village and the extended community, which is in line with Ostrom's eighth design principle of nested enterprises.

6.3 Chapter summary

In conclusion, our analysis supports Elinor Ostrom's eight design principles for governing the commons, particularly the principle for clearly defined community boundaries (DP1) and nested enterprises (DP8). The case-study at Sunnemo eco-village shows evidence that community-based entrepreneurs effectively govern local action with clearly defined boundaries to preserving the commons, while allowing for replication and adaptation of their lifestyle by external visitors. Additionally, the eco-community actively engages in collaborations and exchanges with neighboring communities, such as Ängsbacka, to sustain resource systems collectively.

7. Conclusion

7.1 Research aim and objectives

This thesis aims to explore how community-based entrepreneurs balance local action with a global focus. Community-based entrepreneurs see the need for substitute models, in this study a common-based economy, that put social and environmental transformation ahead of private gain. Findings show that these entrepreneurs can create social and environmental value by balancing between local and global focus, which ties to the very etymology of entrepreneurship from a multi-perspective of creating social and environmental change. In this ethnographically inspired case-study, we immersed ourselves into Sunnemo eco-village as volunteers for one week to observe how a community-based entrepreneur can balance their local common-based economy with a larger ambition to change economic systems.

Ostrom's (1990) paper on governing the commons formed the basis of answering the research question. Two key findings show significant proof of Ostrom's research on governing the commons in which Sunnemo eco-village balances their local governance of common resources while aiming for the replication of their model by following two design principles: the principle of 'clearly defined community boundaries' (DP1) and 'nested enterprises' (DP8).

The case study at Sunnemo eco-village proves the effectiveness of the community boundaries (DP1) by governing the community's commons and preserving the commons through flexible community boundaries while allowing external visitors for the replication of their lifestyle. Meaning, creating and recreating these boundaries the community constantly aims to preserve their resource system while simultaneously providing access to new visitors. These community boundaries are elastic because they are shaped by the changing local circumstances. Additionally, the research discloses the eco-village's organization as nested enterprises (DP8), by collaborating with neighboring eco-villages to support the balance between their local ambition of preserving the commons and their global ambition of creating a larger network of common-based economies. Both key findings signify how the Sunnemo community balances the contradicting ambition between local and global goals in their governance of the commons with support of Ostrom's first and eighth design principle.

In conclusion, the contrasting ambitions of the community-based entrepreneurs at Sunnemo eco-village emphasize their commitment and primary incentive to create social and environmental value, extending beyond the local level to change global systems. Our research contributes to the understanding of the potential that community-based entrepreneurs have in catalyzing social and environmental change.

7.2 Implications

In our case study of Sunnemo eco-village we found evidence of community-based entrepreneurs creating social, environmental and economic value. With these findings we strengthen the definition of Calás, Smircich, & Bourne (2009) in which they define entrepreneurship as a complex phenomenon which requires a multi-perspective. By structuring bottom-up initiatives from community-based entrepreneurs as a driver of social change, it can be acknowledged as a process for achieving social change on a systemic level. Sunnemo eco-village aims to achieve complete self-sustainability while also giving others the chance to learn from them and replicate it to achieve self-sufficiency themselves. The eco-village may therefore present a larger-scale potential for social and environmental improvement.

It is important to state that in Ostrom's study on governing the commons, she studied communities have been able to successfully manage their local resources over centuries. However, our research goes beyond Ostrom's locally aimed scope by finding that the purpose of Sunnemo eco-village is to govern its local resources while aiming for larger-scale system changes. Thus, Sunnemo eco-village goes beyond the local action of the core-community by inviting external visitors to replicate their lifestyle while aiming for systemic change. These contrasting ambitions emphasize the innovative approach community-based entrepreneurs can take in creating environmental and social value.

7.3 Limitations

As this research is an observation of just one single case study, the generalizability of the results is extremely limited. Sunnemo eco-village has its own uniqueness and cannot serve as a model for other eco-villages. Meaning this sample is not representative for eco-villages in general. Furthermore, the short period in which we participate as part of the community limits the evidence of this study. We acknowledge that uncovering more patterns over a longer period of time would have improved the findings' validity. Additionally, our ethnographic inspired research of participant observation has it limits. Due to the risk of observer bias, research could

involve subjective interpretation. In addition, we believe there is much more to learn from the community in relation to the paradox of local action and global focus. Real ethnographic research most likely will find more in-depth knowledge of patterns in where elastic boundaries are created within this paradox, for example patterns in decision-making. Due to the limits of the time spend at the eco-village in combination with this research being part of the Master Entrepreneurship and Innovation, it is beyond the scope of the limited time of this study to elaborate further on the eight design principles of Ostrom (1990).

7.4 Future Research

Future research is needed to establish a better understanding of how eco-villages like Sunnemo balance the management of their common-based economy between local and global focus. To discover more patterns and logic in the organization of the Sunnemo eco-village and its network of eco-villages, longer observations are necessary. In addition, future research is needed to find out if the implementation of the eight design principles of Ostrom (1990) to manage an eco-village would help the community to work toward their goal of becoming socially, economically and environmentally sustainable more effectively.

We disclosed that Sunnemo eco-village is organized as nested enterprises by collaborating with neighbouring eco-villages, thus showing a polycentric way of commons governance. Our research shows that polycentricity ascribes advantages of local commons governance, while also aiming for larger systemic change. We identified cooperative relationships between different eco-villages; therefore further research on polycentricity within Sunnemo eco-village's larger network of multiple eco-villages is encouraged. Future research on polycentricity of Sunnemo eco-village would provide better insight into the neighbouring communities. More specifically, what neighbors do similar or differently in comparison with Sunnemo eco-village, and how they determine to manage their commons more effectively through collaboration with other eco-villages.

Additionally, future research can be done on community currencies and cross-community collaboration to gain a further understanding of community-based entrepreneurship towards global systemic change through polycentric governance. Community currencies are promoted in our case study through the exchange of trading goods and services between the cross-community collaboration between Sunnemo eco-village and other communities. Further

examination of this collaboration may bring a better understanding of social activities beyond market relations.

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