Land Ethics as innovative force

A study into the ethics of relating with the land in Dutch transformational initiatives for sustainability

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Thesis report

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Summary

This study has provided in-depth understanding of the land ethics that have developed and are developing in four Dutch transformational initiatives for sustainability. I defined land ethics as ethical ideas, principles and values that guide choices in relation to the land. The land represents the living webs or communities of humans, nonhuman animals, plants, rocks, soil, water and so on. In transformational initiatives for sustainability, land ethics are reimagined by people whom I call 'biocultural creatives'. These reimagined ethics challenge ways of thinking, valuing, and acting regarding the land that are currently dominant in Western culture. Reimagining ethics is relevant because a change in land ethics is considered a strong leverage point for societies in becoming more sustainable. This is necessary to address the ecological crisis. To contribute to the understanding of possible ways to change the ethics of relating to the land in practice, this thesis has addressed the following research question: *"how do the land ethics of* biocultural creatives *underpin Dutch transformational initiatives for sustainability?*" The study has characterized (1) the land ethics that underpin the transformational initiatives, (2) the dynamics between land ethics and practice, and (3) the contribution of land ethics to sustainable development beyond the initiatives.

The selected initiatives are a foundation for food forestry, a business that teaches how to forage for wild, edible plants, an association that built an ecological neighborhood, and an organic dairy farm. The data for this multiple case study was collected through one-on-one, semi-structured interviews. Per initiative, two biocultural creatives were interviewed. After the first interview, the data has been analyzed by coding. Based on the initial analysis, a second interview was held to verify the findings from the first interview and collect additional data. Doing two interviews per participants has shown to be an effective strategy to verify the findings from the first interview and collect additional data. The accuracy and richness of the data could have further been increased by additional data collection methods such as participant observation or ethnography, and by interviewing more than two biocultural creatives for the larger initiatives.

From the case analyses, it became clear how land ethics underpin the studied transformational initiatives for sustainability: they are an important driving force behind the development of innovative, practical relations with the land because they provide a constantly developing guidance. Recurring themes across initiatives were living in connectedness with the land, less intervention to let natural processes run their course, minimizing damage to the land, and supporting or caring for the land. In a co-evolvement between ethics and practice, land ethics become increasingly tailored to the practical contexts of the initiative. Due to the innovative and practical nature of their land ethics, the transformational initiatives are able to show that certain ethically informed practices – that are generally viewed as unattainable or 'too idealistic' - are actually feasible. By embodying a lived alternative, biocultural creatives can show the array of options to consider, help to reimagine the possibilities and even assist in making a practical change. This enables them to contribute to sustainable development beyond the initiatives on a deep, yet practical, level. It remains speculative whether, and to which extent this impact contributes to a change of the moral order that is currently dominant in Dutch society. Nevertheless, this thesis shows how biocultural creatives develop potential alternatives for the moral order.

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1. Introduction

1.1 Problem statement: The ethical dimension of the ecological crisis

The world is facing an ecological crisis: developments like biodiversity loss, climate change, ocean acidification and habitat degradation threaten life on earth, including the lives of people (Díaz et al., 2019). To address the ecological crisis, it is necessary to become more sustainable[1]. This is especially true for Western societies, whose unsustainable practices have been, and still are, a main driver of ecological problems across the globe (Banerjee, 2003). Currently, a plethora of approaches to sustainability exists, some focusing on technological innovations, others on economic incentives or behavioral nudges. The diversity in approaches is important because they cover different facets of sustainability and suit different contexts (Robinson, 2004; Lynam, 2012; Hedlund-de Witt, 2014). Nevertheless, critics argue that most sustainability interventions are "highly tangible, […] but have limited potential for transformational change" because they target rather shallow leverage points (Abson et al., 2017, p. 30). According to these critics, it would be a mistake to think that the ecological crisis can be addressed without considering the ethics that "underpin complex problems at deeper levels" (Abson et al., 2017, p. 31).

This thesis builds on the notion that there are deeper dimensions of the ecological crisis that are ethical. These ethical dimensions revolve around how Western societies value nature and imagine the place of humans and nonhumans in the world (Robinson, 2004; Reitan, 2007; Hourdequin, 2015). The reason for using this notion as vantage point is accurately described by Jamieson (2008):

> "[The] purpose is not to insist that environmental problems are really ethical, rather than economic, technological, or whatever, but rather to suggest that these problems present themselves to us as having important ethical dimensions. They can be thought of and discussed in these terms, and rather than trying to explain this away, we should follow the thread and see where it leads" (Jamieson, 2008, p. 25).

The ethics that currently make up the dominant moral order in Western societies have been problematized in many ways (Robinson, 2004; Hourdequin, 2015). For example, some problematize the instrumental view on nature and the tendency of dominating nature (Plumwood, 1991; Latour, 2017; Müller & Pusse, 2017), or a loss of physical and spiritual connection with nature (Zylstra et al., 2014; Ives et al., 2018). Others emphasize the preoccupancy with growth and materialist attitude that are associated with capitalist and neoliberalist systems (Moore, 2017; Moriggi et al., 2020). These aspects of the dominant moral order have been said to make Western societies uncaring for nature, insensitive to ecological limits, and prone to overexploitation (Plumwood, 2010; Hourdequin, 2015). Thus, despite the variety of problematizations, the insight that certain aspects of the Western ethic play a key role in the ecological crisis is widespread (Jamieson, 2008; Hourdequin, 2015). Therefore, a change in the ethics that guide humans in their interactions with the natural world, is considered a deep and strong leverage point in becoming more sustainable (Fisscher et al., 2012; Abson et al., 2017; Ives et al., 2018).

[1] The efforts to address the ecological crisis are most accurately referred to as 'environmental sustainability' or 'ecological sustainability' (Morelli, 2010). For the sake of simplicity, I use the term 'sustainability', which is a commonly used abbreviation (Morelli, 2010).

1.2 Land ethics in transformational initiatives

The ethics that currently make up the dominant moral order in Western society can change under influence of discontent among people within that society (Hämäläinen, 2020). In case of sustainability, individuals in civil society that want to make a change, organize themselves in initiatives for sustainability (Fisscher et al., 2012; Moriggi et al., 2020). The people involved in these initiatives can be called biocultural creatives: "groups of people who, driven by an engagement with society and nature, create new cultural models and practices for interaction with biodiversity" (Elands & Van Koppen, 2012, p. 184). In initiatives for sustainability, biocultural creatives are reimagining how to relate with the natural world in ways that are ecologically sustainable (Elands & Van Koppen, 2012). In doing so, they challenge ways of thinking, valuing, and acting regarding nature that are currently dominant in Western culture (Robinson, 2004; Puig de la Bellacasa, 2017). Therefore, I call such initiatives 'transformational'. Although many transformational initiatives are relatively small, they are important because often, the people with (radically) deviant ideas are the ones who can bring renewal in the moral order (Jamieson, 2008; Appiah, 2010 in Christen & Alfano 2014; Hämäläinen, 2020). Therefore, the ethics that underpin transformational initiatives might contribute to a shift in the dominant moral order regarding sustainability.

Inspired by conservationist Aldo Leopold's famous essay "The Land Ethic" (Leopold, 1970), I call the ethics that underpin transformational initiatives 'land ethics'. The land can be defined as the living webs or communities of humans, nonhuman animals, plants, rocks, soil, water and so on (Leopold, 1970). The concept of land ethics is further elaborated in the theoretical framework. In short, land ethics are ethical ideas, principles and values that guide choices in relation to the land. They provide insight in what are *good* ways to relate to the land, according to those involved in the transformational initiative[2].

1.3 Research objective and questions

Since a change in land ethics has the potential to address the deeper dimensions of the ecological crisis, it is important to gain more insight in the transformational land ethics that have developed and are developing in practice. However, there are relatively few studies into the ethics that underpin transformational initiatives for sustainability. Currently, especially the ethics of the permaculture movement has been studied (see e.g. Puig de la Bellacasa, 2010, 2017; Pittaway, 2017; Roux-Rosier et al., 2018).

To contribute to the understanding of possible ways to change the ethics of relating to the land in practice, this thesis will examine how land ethics underpin four transformational initiatives in the Netherlands. The main question that will be addressed is *"how do the land ethics of biocultural creatives underpin Dutch transformational initiatives for sustainability?*" To address this question, I will explore three topics: (1) the values, principles and ideas that together make up the land ethics underpinning transformational initiatives; (2) the dynamics between land ethics and practice; (3) the contribution of land ethics to sustainable development beyond the initiatives. For each topic, a sub-question has been formulated:

- *How can the land ethics that underpin the transformational initiatives be characterized?*
- *What are the dynamics between land ethics and practical relations between people and the land?*
- *How do the land ethics in the transformational initiatives contribute to sustainable development beyond the initiatives?*

[2] This definition is based on how Hämäläinen (2020) defines ethics. In paragraph 2.3, it is explained how I came to this definition.

To address the research questions, four transformational initiatives have been studied in an explorative multiple case study. The selected initiatives are (1) a foundation for food forestry; (2) a business that teaches how to forage for wild, edible plants; (3) an association that built an ecological neighborhood; and (4) an organic dairy farm. An important selection criterium has been that the transformational initiative involves physical engagement with the land, because direct experience is considered helpful (or even a prerequisite) for reimagining how to relate with the natural world (Hourdequin, 2015; Roux-Rosier et al., 2018). For each of the selected transformational initiatives (i.e. the cases), semi-structured in-depth interviews have been held with people that are closely involved in the initiative. This implies that the research questions have been addressed from the perspective of the biocultural creatives involved in the selected initiatives and not from the perspective of people outside of the initiative.

In the next chapter, a theoretical framework is built by elaborating on the concepts from the research questions and operationalizing these concepts. In chapter 3, the methodological approach, case and participant selection, data collection and data analysis are outlined and discussed. Chapter 4 presents the results of the case analyses. In chapter 5, the results, the methodology and theoretical framework are discussed and reflected upon. In the conclusion, is the final chapter of this thesis, the research questions are answered.

2. Theoretical framework

In this chapter, I built a theoretical framework for studying land ethics. The framework guides the data collection and analysis, which are described in the methodology (chapter 3). In paragraph 2.1, I define what I mean with 'the land' and 'relations with the land'. Then, I elaborate on my approach to ethics (2.2). The last three paragraphs operationalize the concepts from the sub-questions: land ethics that underpin transformational initiatives (2.3), land ethics and practice (2.4), and land ethics and sustainability (2.5). The final paragraph (2.6) synthesizes the theoretical framework by providing guiding questions and a schematic overview.

2.1 Relations with the land

Based on how Elands et al. (2019) define relations with nature, relations with the land can be broadly defined as the ways in which people think and feel about the land and how they act on and with the land. Relations with the land are therefore both material or physical, and nonmaterial, spiritual or philosophical (Ives et al., 2018). These relations are culturally determined by "interaction between societies and nature" (Elands et al., 2019, p. 29). In transformational initiatives, these culturally determined relations are reimagined. This means developing new or different ways of thinking and feeling about the land and/or new ways of acting on and with the land.

As mentioned in the introduction, I use the term 'relations with the land', instead of 'relations with the natural world'. Although those terms mean more or less the same, there are several reasons for preferring 'the land' over 'nature'. First, the concept of nature is highly criticized because it is part of the mutually exclusive nature-culture divide. This divide signifies the (hyper)separation between humans and the nonhuman world that is characteristic for Western culture (see e.g. Morton, 2007; Plumwood, 2010; Fletcher, 2017). The land is not an exclusive domain of either humans or nature (Leopold, 1970). Instead of emphasizing the separateness between humans and nonhumans, the land has the potential to highlight relations and interconnectedness between humans and nonhumans. A second, perhaps less compelling, reason is that the land is less abstract than nature. The abstract connotation of the word nature is connected to seeing nature as 'the environment' that is somewhere 'out there' instead of right here (Morton, 2007). Alternatives to nature, like, 'the (natural) world', 'the earth', 'the environment', or 'the more than human world', are rather abstract too. Since 'the land' has a more concrete connotation, using the term emphasizes that being interconnected is tied to physical places and bodies, and that it exists in concrete relationships with others.

I have been inspired to use the concept of 'the land' by American nature conservationist Aldo Leopold. In his essay called 'The Land Ethic', he pleas for an ethic that guides the interrelations between humans and the land. In this essay, he refers to the land as a community consisting of soils, waters, plants, animals, humans, etc. (Leopold, 1970). Following Leopold's idea, I defined the land as a community, embedded in a dense network of relations of which humans are also part. Conceptualizing the land as a community implies that the land is not a collection of autonomous, self-interested individuals acting against a background of a passive or inert environment. Instead, the land is a "relational web" in which +all entities in the community have the capacity to respond to others and to situations (Van Dooren & Rose, 2016; Puig de la Bellacasa 2017, p. 24). Thus, even though this thesis studies the ethics and practices of humans, this focus does not imply that the other parts of the relational web are deprived of intention and agency (Puig de la Bellacasa, 2010). The actualization of ethical engagement is not acted 'upon the environment', but rather practiced within a responsive relational web (Hourdequin & Wong, 2005).

2.2 Approaching ethics

In the introduction, I explained that land ethics that underpin transformational initiatives reflect what the people involved see as *good* ways to relate to the land. Thus, what people consider as good is a matter of ethics, making ethics a key concept for this study. It is important to distinguish between the two main meanings of ethics. In the first meaning, ethics is the same as morality[3] (Christen & Alfano, 2010). In the second meaning, ethics is an ancient discipline that systematically investigates, justifies, and reflects on morality. This discipline is also called moral philosophy (Christen & Alfano, 2010). For this thesis, I use ethics in the first meaning. Since ethics is a contested concept that is approached differently across disciplines and contexts (Lukes, 2010), I use this paragraph to elaborate on three defining features of my approach to ethics.

The first feature is that ethics are related to behavior in a complex way. Ethics provide guidance on how to live our lives in the best possible way, by helping in sorting out what is good and what is not[4] (Blackburn, 2001). As such, ethics play an important role in making decisions and judgments on different scales, levels of abstraction and timespans (Jamieson, 2008). The relation of ethics with actual behavior is normative, in the sense that ethics "do not describe how people behave, but how people should behave" (Blackburn, 2001, p. 210). Despite their normative character, people's behavior is not always consistent with their ethics (Nordestam,1967). This can have many reasons, for example relative low importance of certain ethical ideas compared to other ethical ideas, lack of time, money, skills, power, or because of societal norms, expectations, infrastructure or even laws (Leiserowitz et al., 2006). Moreover, ethics "often do not translate directly into actual behavior" (Leiserowitz et al., 2006, p. 438). Instead, it would be more accurate to say that ethics are "complexly responsive to circumstances" (Hämäläinen, 2020, p. 462).

The second defining feature of my approach to ethics is that that the ethical is an immanent dimension of the social world (Lambek, 2010). Blackburn (2001) calls this the 'ethical climate', i.e. "the climate of ideas about how to live" (Blackburn, 2001, p. 1). Hämäläinen (2016) uses the term 'moral present', which points at all the ethical aspects of everyday practices and situations. The ethical is not a separate domain of our existence but is intertwined with it (Hämäläinen, 2016). However, the workings of this ethical dimension can be "strangely invisible" (Blackburn, 2001, p. 1). The reason for it is that ethics guide decisions, but this often happens from an unreflective state (Zigon, 2007). Thus, ethics are a dimension of the social world, but usually an implicit one. Ethics can become explicit in some situations, especially when ethical ideas, values or principles are not widely shared, contested (Hämäläinen, 2016) or subject to a dilemma (Zigon, 2007). This is what Zigon (2007) calls the 'moral breakdown' or the 'ethical moment': a specific situation in which ethics are problematized. Another way in which ethics become explicit, is through "self-

[3] Especially in the Anglophone tradition, ethics and morality are oftentimes used interchangeably, although some authors make all kinds of distinctions between the two (Christen & Alfano, 2010). In this thesis, no particular distinction is made between morality and ethics.

[4] A more narrow definition of ethics has also prevailed, reducing ethics to obligations that guide behavior and prevent conflict in interpersonal relations. This approach, that Koopman (2003) called 'narrow morality', disconnects ethics from concerns about a good and meaningful life, because it defines "the content of obligation rather than the nature of good life" (Taylor, 1989, in Perry, 2000, p. 69). For my thesis, it is necessary to connect ethics to concerns about living a good life, because I am interested in what the biocultural creatives involved in transformational initiatives find *good* ways to relate with the land.

conscious deliberation" (Lempert, 2013, p. 387). According to Lempert (2013), ethics can become recognizable in discursive interaction (i.e. talk), but this takes labor.

The third defining feature of my approach to ethics is that ethics are socially constructed. Seeing ethics as socially constructed means that they "will vary from one historical period and one social context to another, so that there are [...] *multiple moralities,* of which our own is only one among others" (Lukes, 2011, p. 549). Many traditional moral philosophers tend to neglect the social, cultural, and historical context of ethics, because they prefer to focus on abstracted situations in their search for clear, or even universal, principles and obligations (Hedgecoe, 2004; Hämäläinen, 2016). When studying lived ethics, however, accounting for context is essential. In case of human-nature relationships, the focus on abstractions has been critiqued because it fails to "account for the particularity and contextuality of our relationships with other living beings" (Plumwood, 1996, in Hourdequin, 2015 p. 93). By conceptualizing ethics as socially constructed, ethics become situated in the daily lives of people instead of the theoretical realm of moral philosophers. This does not only help to account for the contextuality of ethics, but also for the emotions on which ethical engagement is often based. For traditional moral philosophers, ethics are only valid if they are based on rationality and reason (Plumwood, 1991; Hourdequin, 2015). In social reality, however, much ethical engagement is not only based on reasoning, but also on compassion, love, care and emotions (Plumwood, 1991; Prinz, 2006; Moriggi et al., 2020).

Together, these defining features of my approach to ethics provide a basis for the operationalization of the research questions. This allows the operationalization to be responsive to the study of ethics in the social reality in which the transformational initiatives are situated.

2.3 Land ethics that underpin transformational initiatives

In this paragraph, the concept of ´land ethics´ is further operationalized, to be able to address the first sub-question, "*how can the land ethics that underpin the transformational initiatives be characterized?*" This thesis does not focus on one particular land-related ethical issue, but on people's land ethics in a broad sense and as entwined with everyday life. Hämäläinen (2016; 2020) has explored this mode of studying ethics and considers ethics to be an evaluative or moral framework. She defines it as "rather complex and often contradictory assemblages of values, norms, habits, practices, responsibilities, ideas of personhood and interpersonal relations" (Hämäläinen, 2020, p. 464). This definition serves as a basis for the definition I use for land ethics, which I formulate as follows: land ethics are an evaluative framework containing an assemblage of values, ideas and principles about what people consider good ways to relate with the land. These values, ideas, and principles can inform, or provide guidance for judgments and practices that are in relation to the land.

My definition of land ethics deviates from Hämäläinen's (2020) definition in two ways. First, land ethics focus on more than only interpersonal relations, as it is not only about relations between humans, but also between humans and nonhuman entities. Second, I use 'values, ideas and principles', instead of "values, norms, habits, practices, responsibilities and ideas" (Hämäläinen, 2020, p. 464). This choice is partially pragmatic, because there is a great diversity in terms that are used to talk about ethics (Lukes, 2010). Values are an undeniable part of any evaluative framework, but I have been inspired by Puig de la Bellacasa (2017) to use the term principles instead of norms. Practices and habits are not included in my definition, because I do not consider them as part of the evaluative framework itself. As explained in paragraph 2.2, the values, ideas and principles in the framework *guide* practices (Blackburn, 2001). It would be confusing to see practices and habits as part of the

evaluative framework, because then there is no distinction anymore between the guidance and the practice. Therefore, I prefer to call a judgment or practice "ethically informed" when it is in accordance with one's ethics (Moriggi et al., 2020, p. 1).

Evaluative frameworks as they occur in everyday lives are rich, complex and have a logical coherence without being entirely consistent (Hämäläinen, 2016; 2020). Although the complexity is to a large extent irreducible, some distinctions can be made within evaluative frameworks that help to elicit the internal relations between the different parts of the framework. The first distinction is between abstract and specific parts of the evaluative framework. Usually, the more abstract parts of evaluative frameworks get the attention from academics, but the more context-dependent parts of ethics are just as important when studying ethics in everyday life (Plumwood, 2003; Hämäläinen, 2016). The more abstract part of the evaluative framework "contains the materials for projecting judgments outward across space and time" (Jamieson, 2008, p. 29). In a lived ethic, also more specific values, ideas and principles develop in response to certain contexts and situations (Plumwood, 2003). The more specific, the more context is taken into account in the ethical idea, value or principle, making it more tailored to certain situations (Plumwood, 2003). Nevertheless, even when ethics are tailored to specific situations, the complexity of everyday life makes direct actualizations of ethical values, ideas or principles rare. Puig de la Bellacasa (2010), who studied ethics of care in permaculture initiatives, concludes that "'It depends' - is the answer to almost every permaculture question. As such, the actualisation of principles of caring are always created in an interrelated doing with the needs of a place, a land, a neighbourhood, a city, a particular action" (Puig de la Bellacasa, 2010, p. 162).

A second distinction that can help to elicit the internal relations between the different parts of an evaluative framework is provided by Latimer & Puig de la Bellacasa (2013). They distinguish between two dimensions of an evaluative framework: The first, which they call 'Ethics', is a "fixed […] normative domain" (Latimer & Puig de la Bellacasa, 2013, p. 159). The second, which they call 'the ethical', is a domain of "indecision where the good and the bad is rearticulated in the fuzzy everyday" (Latimer & Puig de la Bellacasa, 2013, p. 159). Latimer & Puig de la Bellacasa (2013) note that 'the ethical' can stabilize into fixed, more normative strata over time, pointing at the development that an evaluative framework can undergo.

2.4 Land ethics and practice

In this paragraph, the second sub-question is operationalized, which is formulated as "*what are the dynamics between land ethics and practical relations between people and the land?*" On the one hand, land ethics inform practical decisions regarding the land. On the other hand, practices inform ethical ideas regarding relations with the land. Thus, ethics and practice are in a dynamic interaction: they co-evolve (Jickling, 2005). Multiple authors argue that ethical ideas are ultimately shaped in practice (see e.g. Norton, 1996, in Hourdequin, 2015; Puig de la Bellacasa, 2017; Timmerman et al., 2019). Nevertheless, that does not exclude the possibility that someone's land ethics come from something else than practicing relations with the land: people might be inspired by the ethical ideas of other people, for example by a teacher, a friend, a writer, and possibly even by the normative theories of moral philosophers (Cafaro, 2001; Hämäläinen, 2016). Regardless of where one's ethical ideas arose, practice thickens the meaning of ethical principles. In the words of María Puig de la Bellacasa: "It is the doing that transforms the way we feel, think, engage, with the [ethical] principles" (Puig de la Bellacasa, 2010, p. 160). Practice turns ethical ideas into ethical engagement.

Practice does not only give meaning to ethical ideas: it is also where tensions and tradeoffs between intentions and real-world constraints become exposed (Puig de la Bellacasa,

2010). Tensions and tradeoffs between ethical ideals and practical (im)possibilities are unavoidable when directly engaging with the land. For example, equal worth of all beings does not work in practice, because some interactions with the land inevitably involve choices of prioritization of certain lives and interests over others (Hourdequin, 2015). Botanist and Potawatomi citizen Robin Wall Kimmerer experiences this while clearing a pond from algae with a rake:

> "With every rake I knew that I was prioritizing. Short, single-cell lives were ended because I wanted a clear pond. I'm bigger, I have a rake, so I win. That's not a worldview I readily endorse. But it didn't keep me awake at night, or halt my efforts; I simply acknowledged the choices I was making. The best I could do was to be respectful and not let the small lives go to waste. I plucked out whatever wee beasties I could and the rest went into the compost pile, to start the cycle again in soil" (Kimmerer, 2013, p. 90).

Kimmerer's thoughts point at a fundamental tension between respecting life and invoking change that cannot be avoided when interacting with the land. However, practical (im)possibilities are not only a hindrance to the 'application' of ethical ideas: tensions and tradeoffs can also refine ethics or inspire new ethical ideas (Puig de la Bellacasa, 2010). The dissonance that they cause, provides an opportunity to reflect and learn (Hämäläinen, 2020).

2.5 Land ethics and sustainable development

In this paragraph, the third sub-question is operationalized. The sub-question is formulated as "*how do the land ethics in transformational initiatives contribute to sustainable development beyond the initiatives?*" In the introduction, it was explained that the dominant moral order in a society can change under influence of discontent amongst people living within that moral order (Taylor, 1989 in Hämäläinen, 2016; Hämäläinen, 2020). Especially in times of instability, societies renew its moral order so that people are provided with more appropriate moral guidance to respond to the changing circumstances (Hämäläinen, 2020). Sustainable development might have brought some renewal in the moral order, but critics argue that these are "minor reforms where radical reorientation is needed" (Hourdequin, 2015, p. 135). The transformational initiatives represent a more radical form of sustainable development, since they challenge ways of thinking, valuing, and acting regarding nature that are currently dominant in Western modern culture (Robinson, 2004; Puig de la Bellacasa, 2017). In the initiatives, certain ideas will therefore be present regarding why the current moral order is unsustainable and what needs to change to become sustainable.

In practice, shifts in moral orders are fueled because people express their ethics in certain ways, some more explicit than others (Hämäläinen, 2020). Perry (2000) distinguishes between practicing ethics and preaching ethics as different ways to express ethics. At the practicing extreme, people commit to their normative ideas and (attempt to) make their practices in accordance with their ethics, without imposing them on others. At the preaching extreme, ethics are not only practiced, but also presented to others as prescriptive claims, rules or obligations. In between these two extremes, there are gradations in the extent to which ethics are practiced or preached. For example, Puig de la Bellacasa (2010) proposes a mode of expressing ethics that is more than merely practicing, but not preaching either: presenting ethical ideas "not as norm, but as invitation to relate with" (p. 162). In such a mode of expressing ethics, it is still possible to make normative claims (i.e. expressing what one thinks of as good ways of relating), but not prescriptive claims (i.e. expressing what one should or should not do and think) (Banhík et al., 2021). Therefore, expressing ethics as invitation to relate with can be inspiring to others, without triggering the discomfort and resistance that is a common reaction to preaching (Galanos, 2010).

The expression of ethics can actualize on different scales, ranging from local and place-bound to global (Hourdequin, 2015). Looking into the scale on which land ethics are expressed can therefore elicit another aspect of how land ethics in transformational initiatives contribute to sustainable development. Bioregionalism is a form of ethical engagement committed to building close relations with certain places and is therefore focused at the local or regional level (Hourdequin, 2015). Since the land ethics in this study are closely interrelated with practical relations with the land on a local level, they are by definition bioregional. Nevertheless, it is possible to be "locally grounded, yet globally engaged" (Hourdequin, 2015, p. 214). This is what Thomasshow (1999) calls bioregional cosmopolitanism: "[exploring] both the immediate landscape (place) and those larger systems that exist beyond the horizon (space)" (p. 126). That even ethics with a bioregional starting point can be transregional, is shown by local initiatives that are globally connected, such as Ecosystem Restoration Camps and La Via Campesina (Ecosystem Restoration Camps, s.d.; La Via Campesina, s.d.). Such organizational infrastructures provide opportunities to exchange and share ethics with people across the globe.

2.6 Synthesis: guiding questions and schematic overview

In this chapter, I have employed different concepts and theoretical approaches to operationalize the research questions. These concepts are 'sensitizing concepts', a term coined by Blumer (1954). Sensitizing concepts give "a general sense of reference and guidance in approaching empirical instances. Whereas definitive concepts provide prescriptions of what to see, sensitizing concepts merely suggest directions along which to look" (Blumer, 1954, p. 7). Even though sensitizing concepts are less strictly defined and less rigidly separated from other concepts, they are still abstractions that reduce complexity of reality (Blumer, 1954). Ang (2011) suggests that simplification is necessary not to eliminate complexity, but to make it manageable. Together, sensitizing concepts can form a theoretical framework that allows for investigation of the phenomenon under study (Bowen, 2006). In this chapter, the sensitizing concepts form a theoretical framework that allows for qualitative, systematic investigation of land ethics in transformational initiatives.

To synthesize the theoretical framework, the remainder of this paragraph presents guiding questions and a schematic overview. The guiding questions are directly based on the theoretical framework. For each sub-question, three guiding questions are formulated (see table 1). The guiding questions help to connect the insights from the theoretical framework to the methodology, because they serve as a basis to develop the interview questions. The schematic overview provides a visual representation of the theoretical framework (see figure 1).

Table 1 Guiding questions. For each sub-question, three guiding questions have been formulated.

Sub-question	Guiding questions
1. How can the land ethics that underpin the transformational initiatives be characterized?	a. What values, ideas and principles are part of the evaluative framework for land ethics? b. Which parts of the ethical framework are more abstract and which ones are more specific? c. Which parts of the ethical framework are more fixed and which ones are rearticulated in the fuzzy everyday?
2. What are the dynamics between land ethics and practical relations between people and the land?	d. How and to what extent do land ethics inform practical engagement with the land? e. What tensions and tradeoffs exist between ethical principles and practices in the initiatives? f. How does practical engagement finetune ethics or inspire new ethical ideas?
3. How do the land ethics in the transformational initiatives contribute to sustainable development beyond the initiatives?	g. How do biocultural creatives think that their land ethics (could) help in becoming more sustainable? h. How do the biocultural creatives in the initiative express their land ethics to people outside of the initiative? i. On what scale(s) are the land ethics expressed?

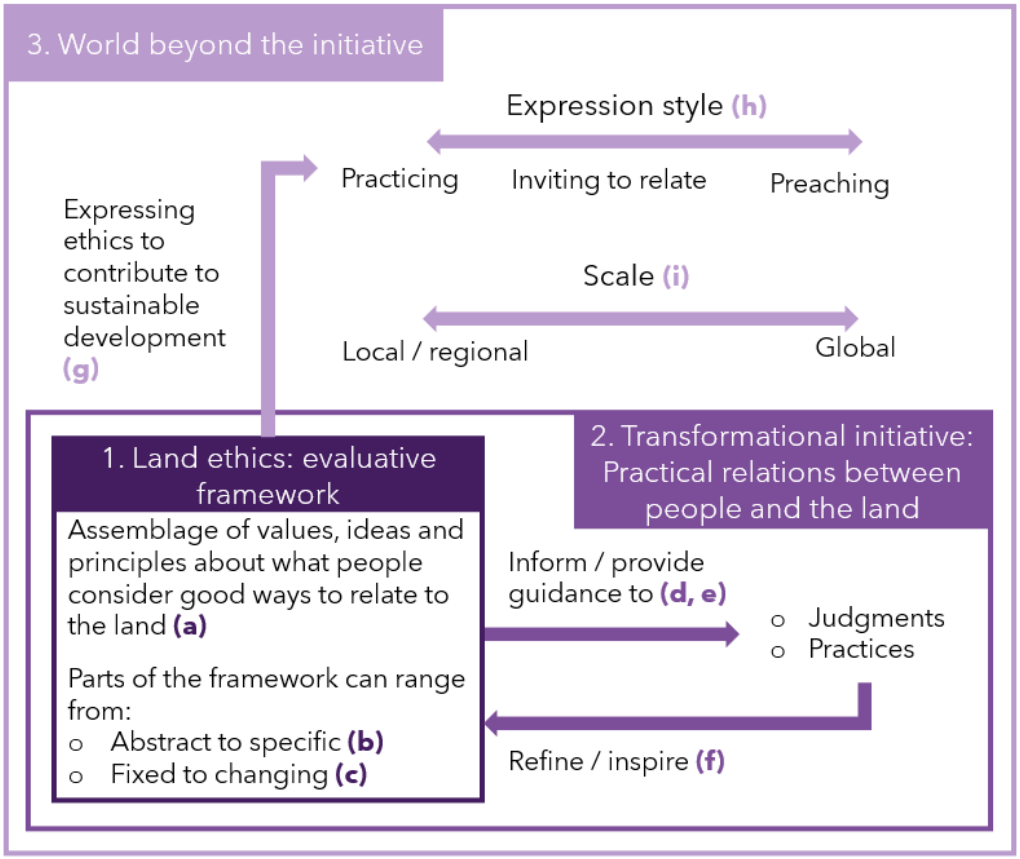

Figure 1 Schematic overview of the theoretical framework. Each of the three blocks represents the focus of a sub-question. The numbers 1-3 correspond to the numbering of the sub-questions in table 1. The arrows and text in the blocks summarize the insights of the theoretical framework. The letters a-i correspond with the guiding questions in table 1, showing which part of the scheme is related to which guiding question.

3. Methodology

In this chapter, the methodological approach (3.1) and study design (3.2, 3.3, 3.4) are outlined. Paragraph 3.2 describes the criteria for case selection and participant selection. In paragraph 3.3, the procedures for the data collection method are discussed. Paragraph 3.4 describes the steps that were followed for data analysis.

3.1 Methodological approach

The methodological approach in this thesis is consistent with an approach called 'descriptive ethics', which is defined as "the description and analysis of the ethics of individuals and groups" (Nordestam, 1967, p. 90). Descriptive ethics suit the research questions of this study because this approach studies ethics as they occur in everyday life, taking context and complexity into account (Hämäläinen, 2016). Despite the growing interest in the empirical study of ethics, descriptive ethics are only a small research field (Hämäläinen, 2016).

The ethics under study in this thesis are land ethics in transformational initiatives for sustainability. Since not much is known about the land ethics that underpin transformational initiatives, and because of the complexity of the topic, the research questions are open-ended and exploratory. For this type of research questions, qualitative research is suitable (Elliot & Timulak, 2005). Qualitative studies use language as empirical data to analyze meaning, instead of using numbers as data that are analyzed by statistical analysis (Elliot & Timulak, 2005). The empirical data will be gathered from four cases by doing interviews.

3.2 Case and participant selection

This thesis is a multiple case study, consisting of four cases. In qualitative case studies, it is common to strive for data saturation, which means that a researcher continues to select cases and collect data until no significant new insights are obtained (Kumar, 2014). Data saturation is considered an important quality criterium because it makes the conclusions generalizable (Kumar, 2014). However, it is unlikely to reach data saturation after studying four cases, as land ethics in transformational initiatives are expected to be highly diverse. Therefore, I will not strive for data saturation, but for 'information power', a concept coined by Malterud et al. (2016). Consistent with the concept of information power, Timmerman et al. (2019) argue that it is not the number of cases, their generalizability nor the saturation that is decisive for the quality of the case study. Instead, case analyses should have sufficient "information richness or 'information power'" to provide theoretical or empirical insights (Timmerman et al., 2019, p. 580). A case, then, should be exemplary, i.e. the phenomenon should be clearly present (Timmerman et al., 2019). In this thesis, the phenomenon under study is land ethics in transformational initiatives. Thus, an exemplary case is an initiative that is truly transformational and in which land ethics are clearly present. Five criteria were used in this study to select the cases:

- The initiative is located in the Netherlands.
- At least two people are currently closely involved in the initiative.
- The ambitions of the initiatives have an explicit link with sustainability.
- The initiative is transformational, which means that it involves cultural models and practices that challenge ways of thinking, valuing, and acting regarding nature that are currently dominant in Western culture.
- The activities within the initiative involve physical engagement with a land community, in which the people involved work, live, and spend a significant amount of their time. Although the practices of a transformational initiative can be located mainly in one place (i.e. with one land community), it is not a requirement.

Next to these criteria, the diversity of cases, in terms of activities of the initiative, location in the country, and the number of people involved, was taken into account as well.

Table 2 provides a short overview of the four cases that were selected and how they meet the latter three selection criteria. A more extensive introduction to the cases can be found in paragraph 4.1. Three initiatives were found though my professional and personal network. The fourth initiative, the organic dairy farm, was found through a book that discusses several initiatives for sustainability in the Netherlands[5].

Table 2 Overview of the selected cases and how they meet the criteria for case selection.

Initiative	**Link with sustainability**	**Transformational aspects**	**Engagement with a land community**
Foundation for food forestry	Sustainable food production	Challenging conventional agriculture by building on complex and diverse ecosystems	Developing and managing food forests
Foraging business	Sustainable foraging as partial replacement of (industrially) produced food	Challenging disconnection from food by foraging for wild, edible plants	Foraging activities in nature areas and private gardens; managing private gardens
Ecological neighborhood	Sustainable building and living	Challenging conventional housing by building a neighborhood that balances all aspects of sustainability	Building, living and maintaining buildings and green spaces
Organic dairy farm	Sustainable dairy production	Challenging conventional (dairy) farming by giving by explicitly making room for nature on the farm	Taking care of, and management of, the cows and the (life on the) farmland

For each case, two participants were interviewed to establish triangulation of sources (Elliott & Timulak, 2005). All participants were practitioners at the heart of the transformational initiative, for example the founder of the initiative and/or someone who is currently closely involved. This was an important selection criteria, because such practitioners are likely to be very knowledgeable on the phenomenon under study, which is necessary to ensure that the case is exemplary (Timmerman et al., 2019).

3.3 Data collection method

3.3.1 Interviewing as data collection method

As mentioned, the data for this study has been obtained through interviews. Interviewing is used often as data collection method in explorative, qualitative studies (Eliott & Timulak) as well as in studies into ethics (Sugarman & Sulmasy, 2001; Haimes, 2002). I consider interviewing the most suitable data collection method in this case, because it enables making the "implicit structures of meaning" explicit (Bueger, 2014, p. 400).

There are, however, also important limitations to interviewing as a data collection method, because the quality of the data depends on factors that are only partially in the control of the researcher. Four important factors are:

- The quality of the interaction between the researcher and the participant (Kumar, 2014).

[5] A reference to the book has not been added because the selected initiatives are kept anonymous. The choice for anonymity is explained in paragraph 3.3.2.

- The willingness of the participant to share information (Gittelsohn 1998, in Sugarman & Sulmasy, 2001).
- The ability of the participant to recall certain experiences or ideas during the interview (Gittelsohn et al., 1998, in Sugarman & Sulmasy, 2001).
- The ability of the participant to reflect on the practices of the initiative and the land ethics that underpin those practices (Lempert, 2013).

In the remainder of this paragraph, I elaborate on the interview procedure, which has been designed to account for these limitations as much as possible. This study design has resulted in data that is of sufficient quality to provide for insightful results, despite the inherent limitations.

3.3.2 Interview design and procedure

Four relevant characteristics of the interview procedure are discussed below:

- The interviews were semi-structured.
- Anonymity of the participants was ensured.
- The interviews were one-on-one.
- Two interviews were held per participant.

The ***semi-structured form of the interview*** allows for structure and freedom in the interview at the same time (Eliott & Timulak, 2005; Adams, 2015). An interview guide was used to structure the interview (see Annex I). An interview guide is "the outline of planned topics, and questions to be addressed, arrayed in their tentative order" (Adams, 2015, p. 496). The interview questions are based on the guiding questions that are outlined in paragraph 2.6. As suggested by Adams (2015), available documents, such as visions, strategies or websites of initiatives were used to tailor the interview guide to fit each initiative. With semi-structured interviews, it is also possible to adapt the interview guide in between interviews, based on insights and feedback from earlier interviews (Galetta, 2013, in Adams, 2015). For this study, some questions were adapted or added before the second participant of a certain initiative was interviewed, because of information I gathered in the interview with the first participant of that initiative. Such careful design of the questions in the interview guide is important because it contributes to the quality of the interaction between the researcher and the participant (Martinson & O'Brien, 2015).

In semi-structured interviews, the interviewer is free to improvise, which allows the interview to take the form of a conversation or a dialogue (Adams, 2015). The natural flow of the conversation in a semi-structured interview helps to make the participant feel more at ease, which might take away potential barriers for the participant to share certain information (Adams, 2015). This helps to account for the second limitation of interviewing that I mentioned earlier in this paragraph, namely that the quality of the data depends on the willingness of the participant to share information (Gittelsohn 1998, in Sugarman & Sulmasy, 2001).

The second characteristic of the interview procedure is that the ***anonymity of participants is ensured*** outside of the initiative. In practice, this means that the names used in this report are not the participants' real names, but anonymous names that the participants chose themselves. Moreover, no detailed information is mentioned in the report, such as the place or region where the initiatives are located or the name of the association, foundation or business. It was unattainable to ensure anonymity of the participants within the initiative. With every initiative, one participant helped me to find another participant within the same initiative. Also, some interviews took place at a location where other people involved in the initiative were present as well. Even though complete anonymity could not be ensured, the

anonymity of the participants outside of the initiative was ensured, as it can help to take away barriers to share information during the interview (Adams, 2015).

The third characteristic of the interview procedure is that ***the interviews were held one-on-one***. Just like ensuring anonymity, doing interviews in a one-on-one setting can help to take away barriers to share information (Adams, 2015). Moreover, one-on-one interviews allow for a more in-depth conversation with the participant, thus contributing to the quality of interaction. A downside of doing one-on-one interviews, however, was that it was sometimes unclear whether the participant's views are merely personal, or that they were collectively held within the initiative. This limitation was partially addressed by interviewing multiple participants per initiative and by interviewing each participant twice.

A last, important characteristic of the interview procedure is that ***two interviews were held per participant***. During the second interview, the preliminary results of the first interview were shown to each participant and discussed. Giving participants the opportunity to react to the preliminary results is a suggestion taken from Timmerman et al. (2019), who propose this as part of a case study methodology for research into ethics. This characteristic of the interview procedure accounts for the last two limitations that I mentioned, namely the ability of the participant to recall ideas, and the ability of the participant to reflect on their practices and ethics. Before the second interview, a document with preliminary results from the first interview was sent to the participant. This gave participants the time to read it in advance and reflect on it. During the second interview, the participants could share additional insights, correct things that got interpreted wrongly (Gittelsohn 1998, in Sugarman & Sulmasy, 2001) and communicate whether the preliminary results describe their views, ideas and stories in a way that resonates with them (Timmerman et al., 2019).

The preliminary results were organized per guiding question, written concisely in bullet points to increase readability, and accompanied by many quotes to show the participant the data that the results were based on. In addition to the results, the document contained the questions that came up during the analysis of the first interview. As such, the document provided a clear structure for the second interview. Nevertheless, the second round of interviews was still semi-structured, because both the interviewer and participant were free to bring up topics or (follow-up) questions. In annex II, one of the documents with preliminary results can be found.

3.4 Data analysis

As explained in the previous paragraphs of this chapter, four cases were investigated. For each case, two participants were interviewed and per participant, two interviews were held. This resulted in 16 audio-taped interviews in total. In this paragraph, the steps that were taken to analyze the data are outlined. Table 3 gives a concise overview of the steps.

Table 3 Overview of the steps in the data analysis.

Step	Description	Level	Output
Step 1	Transcribing audio-taped interview	Single interview (first interview)	Transcription of first interview
Step 2	Coding of interview	Single interview (first interview)	Coded transcript of first interview
Step 3	Writing of document with preliminary results	Single interview (first interview)	Document with analysis of first interview with one participant
Step 4	Transcribing parts of the second interview	Single interview (second interview)	Coded transcript of part of the second interview

Step 5	Adapting, expanding and/or complementing the preliminary results	Interview pair (i.e. the first and second interview)	Document with complete analysis of one participant
Step 6	Analyzing the case	Both interview pairs within a case	Document with complete analysis of one initiative
Step 7	Analyzing cross-case	All four cases	Final results

After the first interview with a participant, ***the interview was transcribed (step 1)***. In the transcription process, the audio-taped interview was converted into a written text, because a written text is easier to analyze (Nascimento & Steinburg, 2019). Generally, two strategies are distinguished for transcription: naturalized and denaturalized. Naturalized transcriptions include as much information about the original conversation as possible, by including all "noises, pauses in speech, slang, accents, etc." (Nascimento & Steinburg, 2019, p. 420). In denaturalized transcriptions, the language of the conversation is formalized according to standard writing conventions (Nascimento & Steinburg, 2019). These two strategies are often presented as a black-and-white choice, while in reality a transcription strategy can use elements of both (Nascimento & Steinburg, 2019). For this thesis, I generally stuck to the words that the interviewee used, including unfinished sentences and informal language. I also ensured that characteristics of the words and sentences were included in the transcript if I considered them to add meaning. This is the case, for example, when certain words are clearly emphasized, when a sarcastic tone is used or when a long thinking pause occurs. However, I did not include every seemingly irrelevant sound (such as 'hm' or 'ah') and every short pause in the transcript, because these make the transcript less readable (Nascimento & Steinburg, 2019). Thus, a naturalized strategy for transcription was mostly, but not entirely, followed.

With help of the transcript, the insights from the first interview were analyzed with the goal of sending preliminary results to the participant as a basis for the second interview round. To enable in-depth analysis of the first interview, ***the transcript was coded (step 2)***. The software package Atlas.ti was used to support the coding process. In this process, codes were assigned to all relevant text fragments in the transcripts. A code can be defined as "a descriptive word or phrase that is intended to describe a fragment of data" (Goodrick & Rogers, 2015, p. 561). Multiple codes can be assigned to one fragment to describe different aspects that are of interest for the analysis (Goodrick & Rogers, 2015) and different codes can be grouped together in more abstract categories (Elliot & Timulak, 2005).

For this study, the codes were not defined in advance but were developed while analyzing the transcripts. Coding is an "interactive process in which priority is given to the data but understanding is inevitably facilitated by previous understanding" (Elliot & Timulak, 2005, p. 154). Therefore, some codes were directly based on insights from the data (i.e. inductive coding), while others were based on insights from the theoretical framework (i.e. deductive coding). The categorization process was fully deductive, because the nine guiding questions from the theoretical framework were used as categories.

Using the codes and categories from step 2, ***the preliminary results were written (step 3)***. As mentioned in paragraph 3.3, the preliminary results were structured per guiding question. Since the code categories corresponded with the guiding questions, it was quite straightforward to arrive at the preliminary results for some guiding questions: it was sufficient to review all codes and their related text fragments within the category, summarize them in bullet points and illustrate the text with quotes. For other guiding questions,

however, some extra steps were taken to arrive at the preliminary results. For some codes, it was not immediately clear to which category (i.e. guiding question) they belonged. During the writing of the preliminary results, some codes were moved to another category for that reason. Moreover, to cover guiding question a and b, the ideas, principles and values that were part of the land ethics were (re)grouped to arrive at a schematic overview. For the extra analysis steps, it would have been possible to return to step 2 to change the codes and categories in Atlas.ti, but this was not deemed necessary. Instead, I chose to use the codes only to provide a first basis and to further refine the analysis while working on the preliminary results.

After the second interview with a participant, ***parts of the second interview were transcribed (step 4)***, following the same procedure as in step 1. It was not necessary to transcribe the entire interview, because the second interview was much more focused on filling in gaps in the data and rephrasing or complementing the analysis of the first interview. Parts that were not transcribed were for example when a participant gave the same example as in the first interview, or when the interview got on a side-track. Since the second interview was much more focused, it was not necessary to code the transcript either. Instead, ***the preliminary results were adapted, expanded and/or complemented (step 5)***, based on the insights from the second interview.

Step 1 to 5 were followed to analyze the data obtained from each individual participant, resulting in eight documents with results (i.e. one document per participant). As a next step, ***a case analysis was made (step 6)***. The results from both participants of the same initiative were merged into one document. With this part of the analysis, the aim was to find the commonalities between the views of the different participants and see to what extent a shared view on land ethics was present within the initiative. This procedure was followed for each case. As a final step in the data analysis, ***a comparison between cases was made (step 7)***. This part of the analysis was also structured per guiding question. The case analyses were compared and analyzed to find patterns and insights on a more abstract, cross-case level. The outcome of the comparison is presented in the results (chapter 4).

4. Results

In this chapter, the results are described. In the first paragraph (4.1), each case is shortly introduced. The next three paragraphs discuss the results per sub-question theme: the characterization of the land ethics that underpin the initiatives (4.2); the dynamics between land ethics and practice (4.3); and the contribution of land ethics to sustainable development beyond the initiative (4.4). The sub-paragraphs of paragraphs 4.2, 4.3 and 4.4 correspond with the guiding questions as presented in the theoretical framework (see table 1).

The aim of these three paragraphs is to present the most important findings of all four cases and compare these with findings of other cases. The more extensive, in-depth analysis of each case can be found in annex III-VI.

4.1 Introducing the cases

4.1.1 Initiative 1: Food forest

The food forest case is an initiative by a Dutch foundation that aims to support "the development and exploitation of new and existing food forests in the Netherlands, to provide for a sustainable fulfillment of needs, such as tasty, healthy and local food, vital nature, an attractive landscape, and much more"[6]. I refer to this organization as 'the foundation'.

Although the foundation manages and supports multiple food forest projects, the case study focused on one specific food forest project, to which I refer as 'the food forest'. The food forest is a pilot farm for food forestry in the Netherlands to show the agricultural sector that food forestry is an innovative form of agricultural production. The food forest is located in a rural area where the province wants to bring back natural wetlands and is partially financed by a governmental fund. One and a half year ago, hedges and a grid of pioneer species have been planted to kickstart the development of a forest ecosystem. One year after that, the edible species were planted within the grid. At the time of interviewing, the food forest looked like a rather chaotic assemblage of plants of one or two meters high. Monitoring and managing tasks are carried out by people who work for the foundation and (local) volunteers.

Instead of having permanently employed personnel, the foundation has contracts with self-employed entrepreneurs. My interviewees, Dylan and Ine, both work as self-employed entrepreneurs for the foundation and are part of the board of the foundation. ***Dylan*** is mainly concerned with strategic tasks, whereas ***Ine*** is a food forest designer. Both Dylan and Ine are closely involved with the work of the foundation. Their work also includes direct involvement in the land, as they help with planting and managing food forests.

4.1.2 Initiative 2: Foraging business

The foraging case is a business run by Sara and Pieter, for which they organize various courses and activities related to foraging (i.e. picking wild, edible plants), bushcrafting and canoeing. I refer to their business as 'the business'. In the case study, the focus is mainly on the activities related to foraging, because those activities involve most of the physical engagement with a land community.

[6] This quote has been retrieved from the website of the food forest foundation. No reference to the website is included because this would violate the anonymity of the initiative, and therefore of the participants.

For ***Sara*** and ***Pieter***, foraging is part of their sustainable lifestyle. They use the harvest as addition to their diet. Most of their foraging takes place in nature areas in the region where they live. Next to foraging in nature areas, they manage their garden in such a way that they can harvest (wild) plants from their garden too. In their courses and activities related to foraging, Sara and Pieter use their expertise to teach their students how to recognize plants, where to find them, and how to harvest, conserve and cook them. By doing so, they hope to inspire others to change their lifestyle too. Within their business, Sara coordinates the foraging courses, while Pieter focuses his work more on bushcrafting and canoeing excursions. Nevertheless, Pieter helps Sara with the courses and smaller foraging-related projects and activities, such as demos and workshops.

4.1.3 Initiative 3: Ecological neighborhood

This initiative is an association, consisting of people who have built an ecological neighborhood together. I refer to this organization as 'the association' or 'the ecological neighborhood'. The people who are members of the association now live in the neighborhood. The vision of the association is "building, working and living in harmony with nature and connected to each other and to inspire the world around us." The mission of the association is to develop "an ecological neighborhood existing of self-sufficient earth houses, in which all aspects of sustainability are in coherence and balanced"[7].

During the construction phase, everyone helped to build the houses one day a week. Members were not only responsible for the construction of their own house, but for the entire neighborhood. When a house was wind- and watertight, the people who were going to live there finished it themselves. A collective house was built for activities and meetings too. Next to the houses with their surrounding gardens, there are collective greenspaces, (vegetable) gardens and a helophyte filter on the terrain of the neighborhood. The interviews were focused on the neighborhood as land community, and included topics such as sustainability in construction of houses, relations with other people in the neighborhood and relations with nonhuman others in the neighborhood.

The interviewees, Douwe and Elea, are members of the association who live in the ecological neighborhood. ***Elea*** has become involved in the initiative in an early phase, when the association was looking for members. She has helped during the entire construction phase. Currently, she is active in the management of the green spaces. ***Douwe*** became involved in the initiative when construction had already begun and started to help more and more during the construction phase. Now he lives with his wife in one of the houses and he is actively involved with the green spaces within and beyond the borders of the neighborhood.

4.1.4 Initiative 4: Organic dairy farm

This initiative is an organic dairy farm in a polder, with approximately 70 'blaarkoppen' (a traditional cow breed) on approximately 40 ha. A quarter of the land is strip cultivation where oats are grown for the cows, among other things. There are also a few hectares of grassland with regular groundwater levels, but the largest part of the land (about three quarters) is wet grassland. There, a creek has been excavated and wooded banks have been constructed. On the wet part of the farm, the groundwater level is higher due to a pump

[7] This quote has been retrieved from the website of the association. No reference to the website is included because this would violate the anonymity of the initiative, and therefore of the participants.

that pumps water into the ditch. The part of the farm with wet grassland is registered as nature and is used for agriculture. I call this 'the nature land'. To manage nature on the farm, a management plan is followed, which is updated annually.

The interviewees are Hans and Gijs. The initiative has taken shape under the management of ***Hans***. Before Hans was a farmer, he worked for nature organizations, but he always had a deep wish of becoming a dairy farmer. Hans took over the conventional dairy farm together with his then wife from his in-laws, and transformed it into what it is today over a few decades. Recently, the farm has been taken over by ***Gijs***, an acquaintance of Hans. Gijs was born on a dairy farm and has always wanted to become a dairy farmer. Next to the dairy farm, where he lives now, Gijs runs two arable farms and one contracting company with two others. Hans is no longer involved in the day-to-day work on the farm, but still deliberates with Gijs, especially when it comes to managing the wet meadows and the creek. Hans also monitors the wild plants and animals, and updates the management plan annually.

4.2 Characterization of the land ethics that underpin the initiatives

This paragraph presents the findings regarding the characterization of the land ethics underpinning the initiatives. In the theoretical framework, land ethics have been conceptualized as rich, complex and (more or less) logically coherent evaluative frameworks containing ethical ideas, values and principles. In paragraph 4.2.1, the evaluative frameworks are presented schematically, including a distinction between their more abstract and the more specific parts. Paragraph 4.2.2 specifies which parts of the evaluative frameworks are more fixed and which parts are rearticulated in the fuzzy everyday.

4.2.1 Land ethics as evaluative frameworks

The schematic overviews of the evaluative frameworks give an overview of the ethical ideas, principles and values that underpin the initiatives and how they relate to each other. Before presenting them, it is important to mention two things. First, these schemes are tentative. Due to the inherent complexity of evaluative frameworks, it is not possible to arrive at an entirely complete and accurate overview of an evaluative framework. Moreover, they should be considered a snapshot of the land ethics in a certain point in time, not as a stable given – a notion that will get attention in other paragraphs of this chapter as well. Nevertheless, the schematic overviews provide an insightful and validated characterization of the land ethics that underpin the initiatives. Second, it was not possible to distinguish *one* land ethic for each initiative, which is the reason why six evaluative frameworks are presented instead of four.

Food forest

For the food forest case, both Ine and Dylan indicated that the board members of the initiative agree on land ethics to a large extent. Therefore, it was possible to distinguish one land ethic that underpins the initiative. The evaluative framework for the food forest case can be found in figure 2. Additional information is provided in box 1.

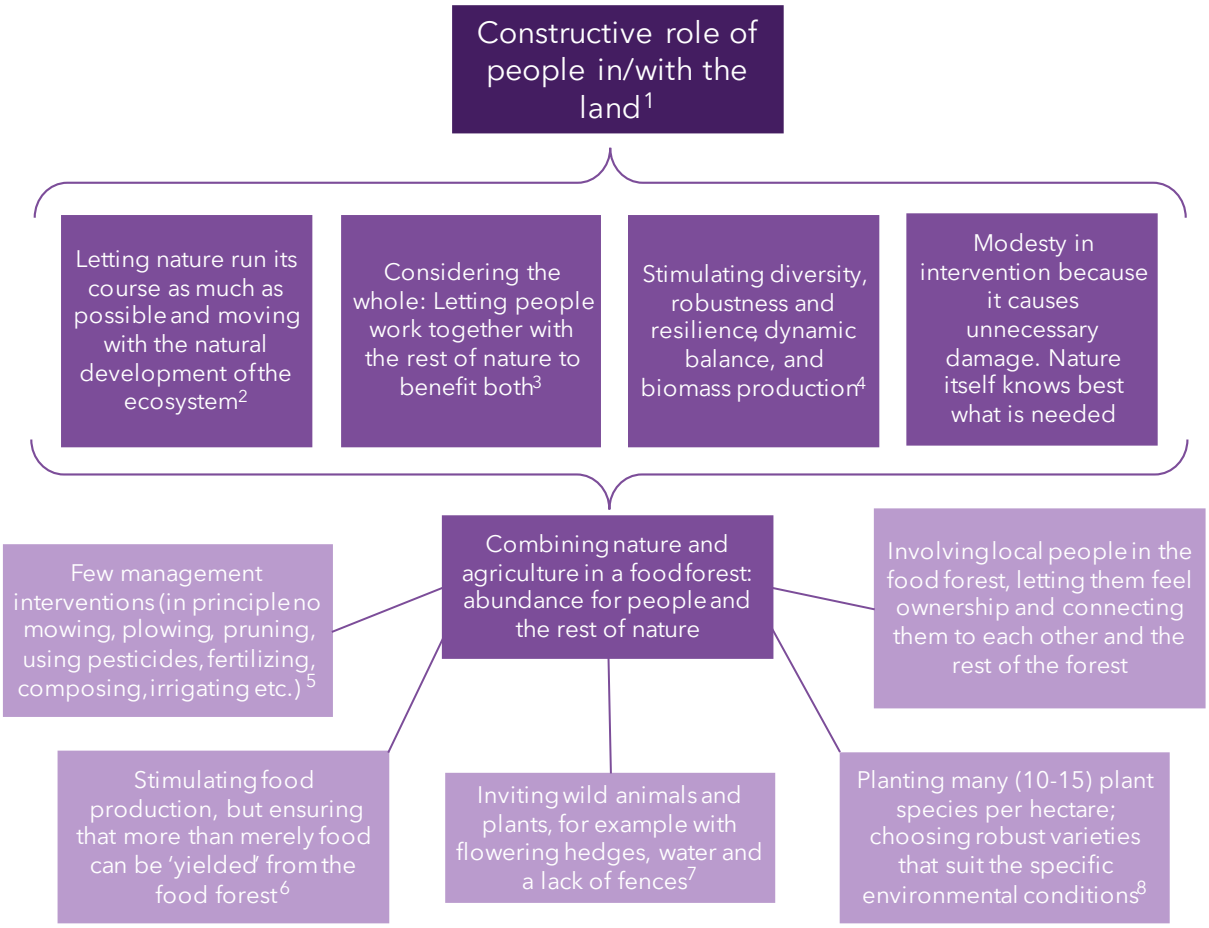

Figure 2 Schematic overview of the evaluative framework for land ethics that underpin the food forest initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple). The numbers correspond with the numbers in box 1, in which additional information is provided.

Box 1 Additional information regarding the evaluative framework for land ethics that underpin the food forest initiative. The numbers correspond with the numbers in figure 2.

1. This core value means that people should search for peaceful coexistence with nonhumans and thereby breaks away from the idea that nature is by definition better off without humans.
2. The answer to the question "how does the ecosystem develop if I do nothing?" can be used to think of a way to move with the development of the natural system.
3. Considering the whole system of humans and nonhumans when making decisions prevents negative side-effects on the robustness and resilience of the ecosystem.
4. Human management should support the development of an ecosystem, instead of inhibiting it. Even though rich systems can be stimulated by certain management, they cannot and therefore should not be controlled and manipulated to a large extent.
5. Some exceptions are the removal of brambles to be able to access the food forest, and irrigation of young plantings in dry periods. Such management is limited as much as possible, because 'pampering' hinders the development of a robust and resilient system.
6. The rest of nature should also be allowed to live and eat from a food forest and less tangible benefits such as an attractive landscape, recreation opportunities, (re)connection to food and the local environment, and education are provided.
7. Wild animals and plants can profit from the habitat and food that the forest provides, and the food forest profits from the functions the wild animals and plants fulfil in the ecosystem.
8. Next to edible species, various types of non-edible plants are planted in hedgerows or grids. This stimulates the system by creating shade, protecting edible species from the wind, binding nitrogen, providing flowers for insects, etc.

Although one land ethic could be distinguished for the food forest foundation, there are some slight differences between board members. For example, Ine emphasized the importance of the connection between people and the land much more than Dylan, and Dylan emphasized modesty in intervention more than Ine. Moreover, Ine did not use the term 'constructive' herself and thought it sounded "a bit technical". Still, she agreed to use the term because it describes her view accurately.

Foraging business

Just like the food forest foundation, Pieter and Sara from the foraging business have their own ideas about sustainable food production. The land ethic underpinning the foraging business is about how individuals and families can (re)shape their relation with food. The foraging case can be said to be truly underpinned by a single land ethic, as the ethical values, ideas and principles expressed by Pieter and Sara were virtually the same (and there were no others in their business). The evaluative framework for the foraging case can be found in figure 3. Additional information is provided in box 2.

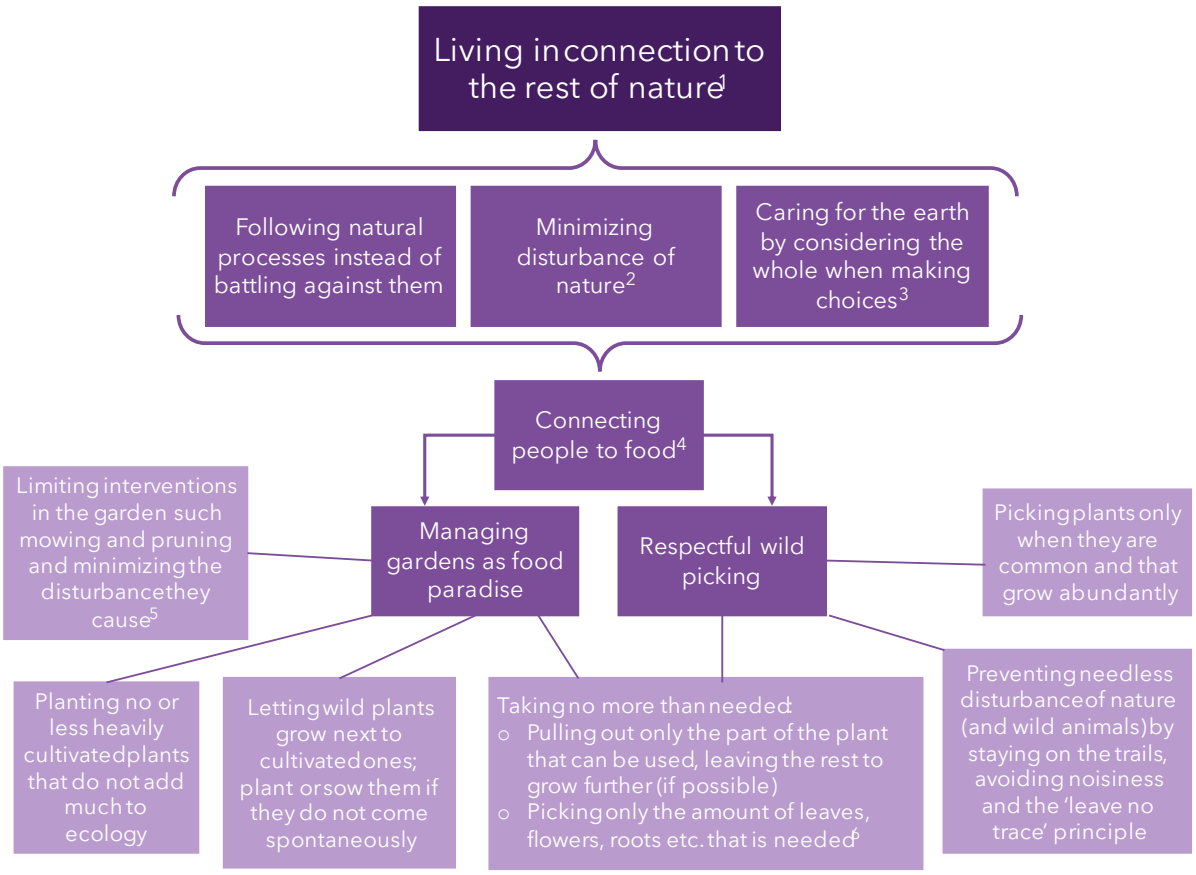

Figure 3 Schematic overview of the evaluative framework for land ethics that underpin the foraging initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple). The numbers correspond with the numbers in box 2, in which additional information is provided.

Box 2 Additional information regarding the evaluative framework for land ethics that underpin the foraging initiative. The numbers correspond with the numbers in figure 3.

1. This core value of the land ethics coincides with the awareness of humanities' strong dependence on nature and responsibility for nature.
2. This is important because humans are only short-lived guests in the world and because "the more you actually learn about all those connections and the balance, […] the more you realize that we are constantly disrupting [natural processes], while nature tries to clean or heal."
3. This implies that people should make their choices less egocentric, but more holistic from the realization that people are part of the earth. People should ask themselves with every decision: 'I do something, that has a consequence, do I want that?, should I want that?'
4. A direct connection to food is an important way for Sara and Pieter to connect to nature. They do this by foraging for wild, edible plants. Pieter: "You eat from nature, so you can hardly get any more connection than that. You become a part of it, you feed on it." Wild plants can be foraged either directly from nature areas or from one's own garden.
5. Usually, no more than a bowl is foraged. There are also situations where there is such abundance (e.g. a cherry tree in bloom) that there is no need to worry about taking too much.
6. The intervention in the garden should be limited, but not eliminated. To prevent the dominance of fast-growing species at the expense of the slower ones, mowing and pruning is possible. Mowing should only be done after plants have produced their seeds. When pruning, the edible species should go in a harvest basked and the non-edible species on the compost heap, so that nothing goes to waste.

Ecological neighborhood

For the ecological neighborhood case, there was not one land ethic underpinning the initiative, because the land ethics of the members of the association vary to a high extent. Nevertheless, Elea and Douwe indicated that everyone in the association supports the mission and vision. The vision describes a more abstract ethical idea on how to relate with the land and the mission describes a more specific ethical idea on how to relate with the land. Since the mission and vision are shared within the initiative, they can be considered the shared basis for the land ethics of the initiative[8]. The land ethics of Douwe and Elea serve as examples for what the land ethics from residents can look like. Both are shown in figure 4, with Elea's land ethic on the left, and Douwe's land ethic on the right. In box 3, additional information is provided.

[8] I have removed the last part of the vision ('for inspiration of the world around us') because this relates more to the theme of paragraph 4.4.

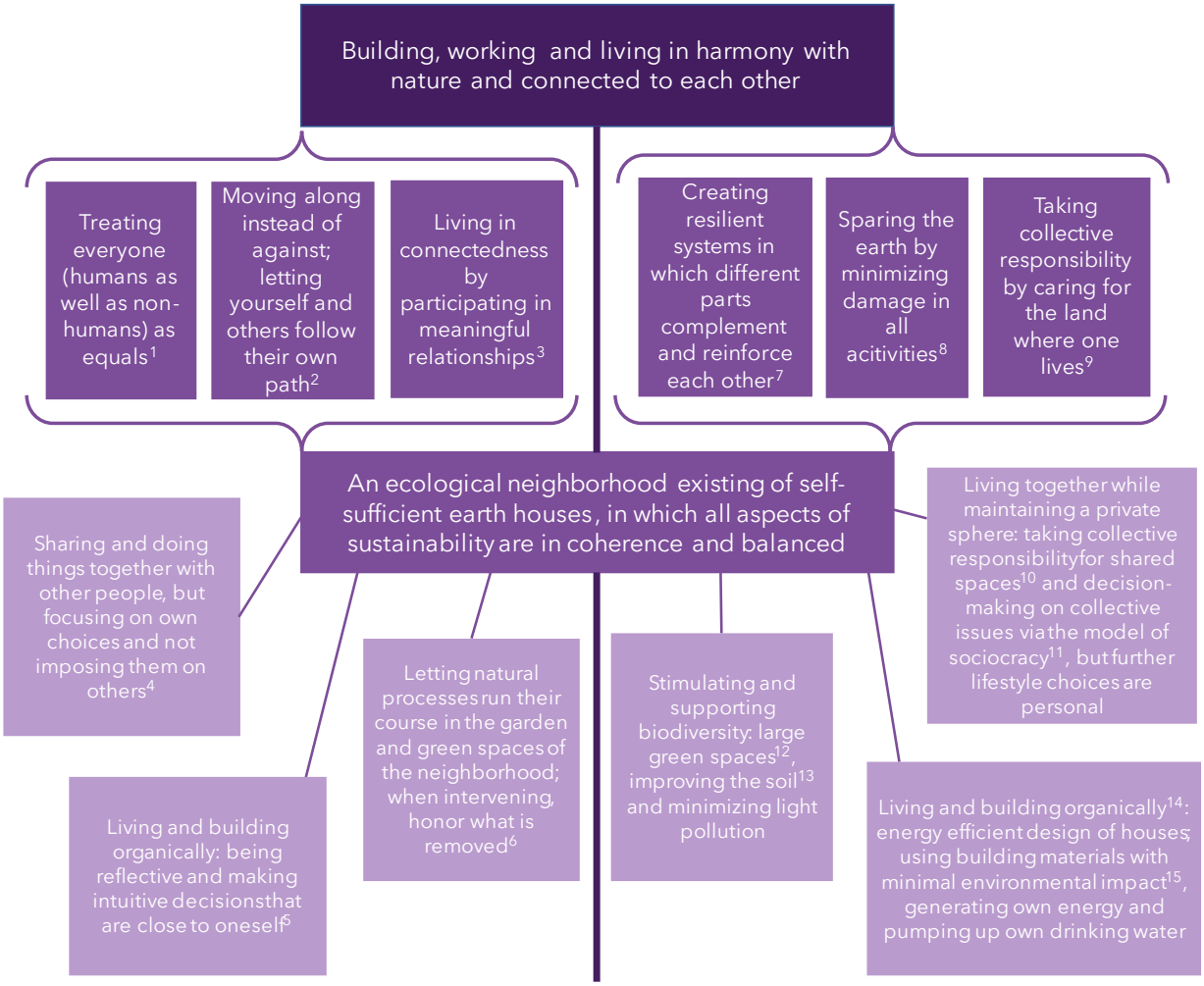

Figure 4 Schematic overview of two example evaluative frameworks for land ethics that underpin the ecological neighborhood initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple). The left part of the framework represents Elea's land ethic, the right part Douwe's land ethic. The two boxes in the middle of the scheme are principles that are shared within the initiative. The numbers correspond with the numbers in box 3, in which additional information is provided.

Box 3 Additional information regarding the evaluative frameworks for land ethics that underpin the ecological neighborhood initiative. The numbers correspond with the numbers in figure 4.

1. Living beings should be able to live freely. Elea does not want to take power over others because no one is worth more than anyone else.
2. People often want something, think they know better, and impose things, but Elea thinks it is better to accept the way others are and how things go.
3. For example by sharing experiences, knowledge, doing things together, or using edible parts of plants.
4. When everything belongs to everyone, there is more respect (for others and for objects) and equality. In joint decision-making processes, Elea is usually neutral because her ideas are not necessarily better than others. If she does not agree with something, she tries to find a creative solution instead of entering into a discussion.
5. Organic building and living does not mean that certain materials and techniques are good or not, but that the choices one makes are close to oneself in that particular situation. For organic building and living, this usually means using simple, natural materials, such as wood, sand, earth and reed, but there are exceptions.
6. The condition for removing something is as follows: "If you take something away, do it for a reason: because you eat it, because you put it in a vase or because you use it as mulch. […] In that way, I honor that all there is."

7. This is important because systems should be able to respond to change.
8. This is important "because we [humans] are here [on Earth] only for a short time."
9. The land should be treated as a 'we-space', a collective space for which the care and responsibility are taken up by the people who live there.
10. The collective responsibility for these so-called 'collective-private spaces' is enforced by the connection that residents have with each other. Therefore, living together brings more opportunities to spare the earth and support the resilience of the 'ecosystem' of the neighborhood.
11. Sociocracy is a decision-making model in which decisions are made on the basis of equality and where everyone supports the decision.
12. The greenery is allowed to grow a bit messy to provide better habitats, while the borders alongside the paths are mown and pruned to keep a well-maintained outlook.
13. Compost is used to improve the growing conditions of the clayey soil that bears the traces of the construction period.
14. Making conscious choices regarding the design of buildings, construction techniques, and materials (source, transport, processing, etc.). There is an intuitive aspect to organic building and there is always site-specific customization. Organic building "is about things being connected and in proportion, resonating [with each other]" .
15. Building materials like sand and wood are favored over materials like concrete and cement, because their production/processing is less damaging and they could be obtained from close by. The latter is called harvesting and the association used to have a special committee for it during the construction phase.

Organic dairy farm

Also for the organic dairy farm case, it was not realistic to outline one evaluative framework that represents the land ethics of the initiative to a reasonable extent. Since Hans and Gijs are the only ones currently involved in the core of the initiative, there are two land ethics underpinning the initiative. Hans's evaluative framework can be found in figure 5.

Hans's land ethic is extensive and answers many questions about what Hans thinks is good and why. Nevertheless, it does not answer all questions for Hans. About developing the farm as it is now, Hans says: "You have to do it, but you don't know why. That's the honest answer. […] It also has to do with feelings." Although much depends on feelings and intuition, they are fueled by an enormous amount of knowledge and experience. Therefore, this land ethic is the result of craftmanship that has developed over a number of decades.

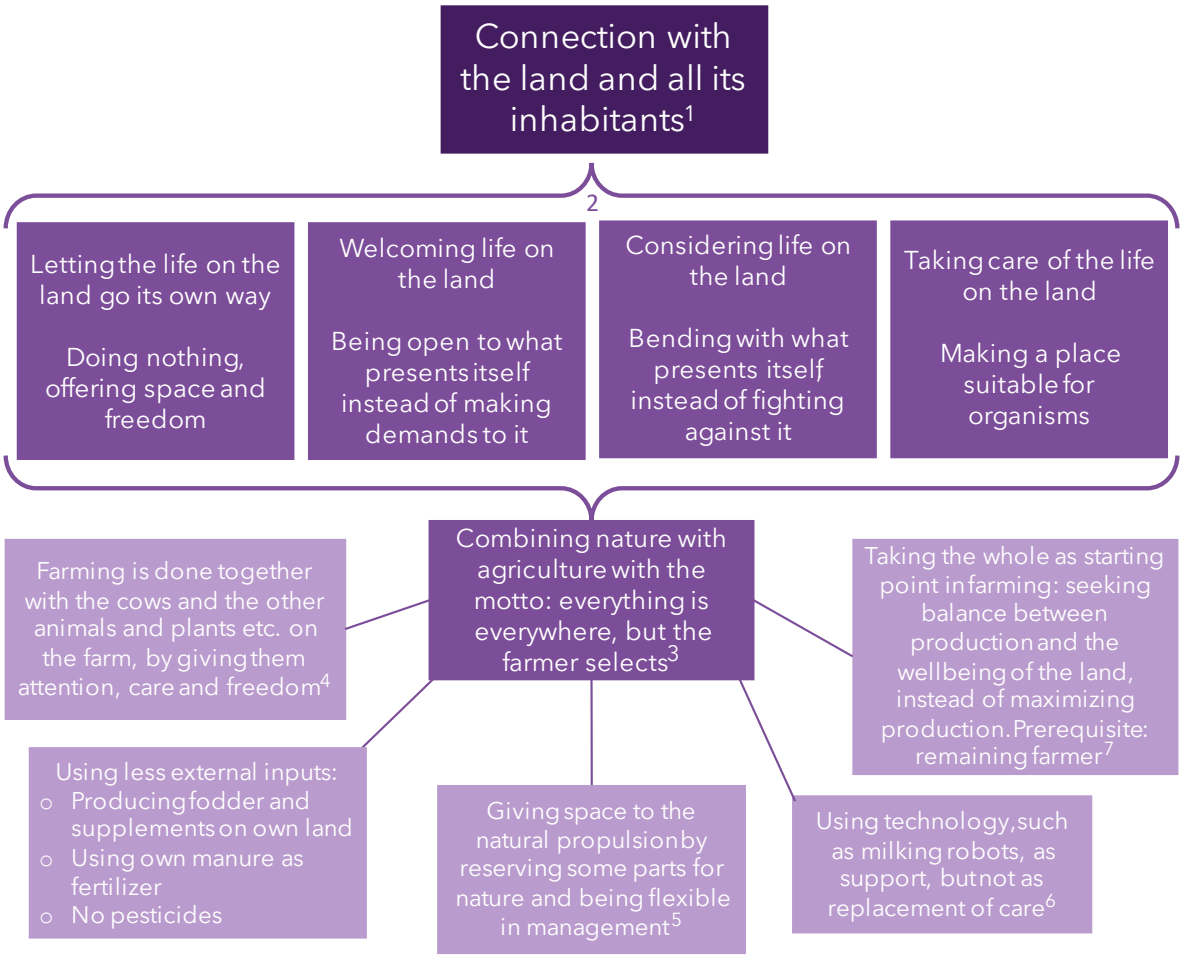

Figure 5 Schematic overview of the evaluative framework for Hans's land ethics, which represents one of the land ethics underpinning the organic dairy farm initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple). The numbers correspond with the numbers in box 4, in which additional information is provided.

Box 4 Additional information regarding the Hans's evaluative framework for land ethics. The numbers correspond with the numbers in figure 5.

1. Being in connectedness is like being in contact with the whole, something unnamable. When Hans is in connectedness with the land, he feels exactly how the land is doing, whether something is about to go wrong or that he does not have to do anything. Hans knows from experience that the more vulnerable one is or dares to be, the better one can connect with the land.
2. Which principle applies at what moment depends on intuition. Beauty, wonder and vulnerability play a role in this intuition, because they are often a signpost for what is good.
3. This motto means that Hans consciously leaves and creates space for animals and plants, but then chooses what he will (not) allow to grow/live/develop.
4. If the farmer does things right, the cows, the farmer and the rest of the land have something to offer to each other. With that in mind, Hans tries not only to give space to nature, but also to give his cows a lot of freedom to go where they want.
5. Prerequisite: what presents itself needs to fit within the business set-up. When assessing this flexibility is important, so it is not possible to plan exactly in advance what the production will be. Some parts of the farmland are more or less reserved for nature to develop.
6. For example, Hans only wanted to buy milking robots when he knew that it was a way to give more freedom to his cows.
7. This is important because a farmer is a guest that needs to take care of the land.

Even though Gijs is the primary decision-maker nowadays, he is bound to the management plan for the 'nature land' and the current set-up of the farm, which have been developed by Hans. Moreover, he deliberates a lot with Hans and he leaves some decisions to Hans, especially regarding the management of the nature land. Therefore, the land ethics currently underpinning the initiative are mainly those of Hans. As time will pass, Gijs's land ethics will become more defining for the development of the initiative. Gijs's evaluative framework can be found in figure 6. Additional information is provided in box 5.

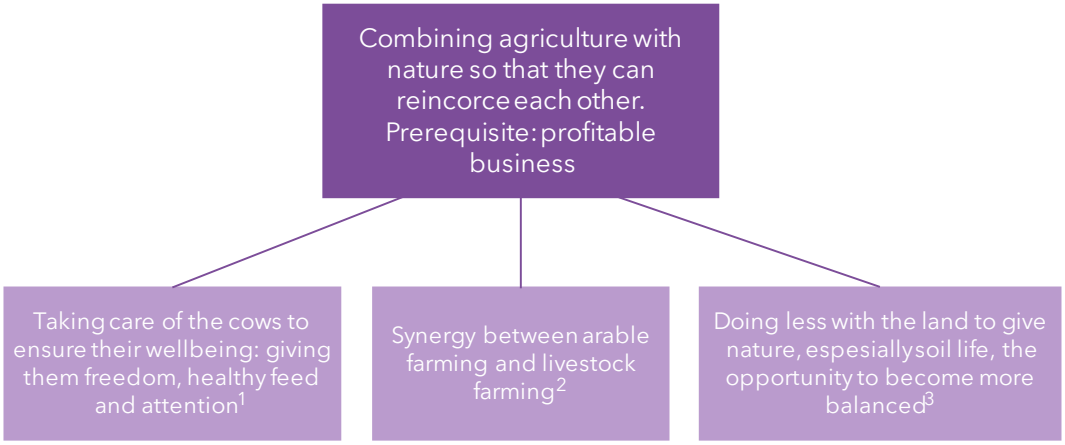

Figure 6 Schematic overview of the evaluative framework for Gijs's land ethics, which represents one of the land ethics underpinning the organic dairy farm initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple). The numbers correspond with the numbers in box 5, in which additional information is provided.

Box 5 Additional information explaining the evaluative framework of Gijs. This evaluative framework represents one of the land ethics that underpin the organic dairy farm case.

1. To give them a sense of freedom, the barn doors are always open and the cows can go to the milking robot if when they want to, which allows them to maintain an individual regularity. Moreover, Gijs is careful to only separate a calf from the cow when he notices that the cow no longer finds it so difficult to walk to the milking robot without her calf.
2. Gijs calls this the "modern version of an old-fashioned, mixed farming business." Arable farms can produce fodder for the cattle and the manure from the cattle can be used to fertilize the fields. As a result, there is, for example, no or less fertilizer or feed from abroad.
3. Farmers should not try to control everything to keep increasing yields, because this is at the expense of the soil and ultimately also at the expense of yields. Another, though less compelling reason for less management, is that birds should also be able to find a home on the farmland. For the birds, not all fields are managed in the same way (mosaic management). For example, they are mown at different times and cows are not always allowed everywhere.

Both Hans and Gijs are aware that their land ethics are not quite the same. Gijs's land ethic is more focused on practical farming and less on the big picture of relating with the land. He says about this: "I am someone who also likes to work with my hands. I also like to be in the land to solve a practical problem. Hans just sees it [the farm] more as nature and as a contribution to the whole big picture. And by that I mean […] he has a bigger goal in mind in the basis. And I think that's the big difference between Hans and me." Hans also acknowledges this difference, but emphasizes that his extensive land ethic is the result of decades of development, while Gijs is just at the beginning of a journey in which he will develop his land ethics further. Hans is happy to support Gijs in that process and also does not expect from Gijs to become exactly like him. Gijs on the other hand, is happy that Hans is still there to give advice and emphasizes that they easily agree on practices, even though their ethics are different.

Recurring themes across initiatives

The most abstract parts of the land ethics are (much) broader than the context of the initiative, making them more generally applicable to relations with the land. Only Gijs's land ethic is focused on practical farming and less on the big picture of relating with the land. When looking at other evaluative frameworks, the more abstract parts of the land ethics might seem quite different at first glance. That is true to a certain extent, because they all have their own unique logic and coherence. At the same time, however, some of the elements of the evaluative framework across initiatives are connected to the same themes, even though they have (slightly) different emphases and use different terms. The most striking similarity was found across all initiatives in terms like 'living in connectedness' (Hans), 'connection with the rest of nature' (foraging case), 'taking a constructive role' (food forest case), and 'living in harmony with nature' (ecological neighborhood case). All these terms point towards a valuation of the embeddedness of people in the land. Related to this embeddedness, there is a fundamental recognition of and attentiveness to the 'needs' of the human and nonhuman parts of the land. The land ethics provide guidance to balance these needs with the needs and desires of people. This is represented in principles like 'considering the whole' (food forest case), considering life on the land (Hans), and 'caring for the earth' (foraging case). Gijs's land ethic is the only one mostly lacking this theme, although he also acknowledges the needs of birds on the farmland.

Another recurring theme is related to natural processes, which are those things that tend to happen when a person does not do anything to 'steer' such processes. There is a recognition that natural processes are a vital part of the workings of the land. Moreover, there is a valuation of the 'agency' of the nonhuman[9] parts of the land, regardless of the 'usefulness' of the outcomes. An important notion here, that came back in all cases, is that one should 'bend with' or 'follow' the direction of natural processes in one's practices to a certain extent, instead of 'battling' against them. In the foraging ethic and in Elea's ethic, the 'following' mostly takes place by limiting intervention, and intervening carefully by trying not to disturb. The food forest ethics, Douwe's ethic and Hans's ethic take a more active role in the 'following' of natural processes: their land ethics contain additional elements regarding the support of certain natural processes of the land, by stimulating diversity (food forest case), creating resilient systems (Douwe), and making a place suitable for organisms (Hans).

The more specific parts of the land ethics are related to these abstract principles. In each initiative, this takes a different shape because of the different contexts in which the initiatives operate: combining agriculture and nature in a food forest; connecting people with food through foraging and eating wild plants; balancing out all environmental aspects of sustainability in a self-sufficient neighborhood of earth houses; and connecting nature with agriculture through organic dairy production on wet nature land. This is where it becomes more difficult to compare the land ethics across initiatives. Although the interviews were specifically focused on land ethics in the context of the transformational initiative in which the biocultural creative was involved, most interviewees mentioned that they see their land ethic as a good way of relating to the land, but not as the *only* good way of relating. For example, Hans, Sara and Pieter all expressed their respect for the way food forests 'do' agriculture, even though I did not ask about this. This is exemplary for the recognition of the biocultural creatives for the existence of other good ways of relating with the land, next to their own. Nevertheless, there are also ways of relating with the land that they strongly

[9] For Elea, this was tied to both humans and nonhumans.

oppose. Their openness to other land ethics should certainly not be interpreted as 'anything goes'.

4.2.2 Fixed and rearticulated parts of the evaluative framework for land ethics

This paragraph looks into which parts of the evaluative frameworks were more fixed and which ones are rearticulated in the fuzzy everyday. The evaluative frameworks described in the previous paragraph are not entirely fixed, because behaving ethically is too dynamic and complex to be fixed into a stable set of principles. Three main reasons were found for why certain parts of the evaluative frameworks were rearticulated in the fuzzy everyday. In table 4, these three reasons are mentioned and illustrated with examples.

Table 4 Overview of three reasons for why certain parts of the evaluative frameworks for land ethics are rearticulated in the fuzzy everyday. For each reason, an example from one of the transformational initiatives is mentioned.

Certain parts of the ethical framework are rearticulated in the fuzzy everyday because …	**Examples**
… principles and values do not lead one on one to certain choices, even though the principles and values themselves can be fixed.	Ecological neighborhood: The principle of living and building organically is fixed for Douwe. What this means in more specific situations, however, needs to be rearticulated every time because every situation is different: "I think much more customization is needed to design our world sustainably. […] We have to rely on a multitude of possibilities which then indeed have to be customized." This implies that the way in which sustainability is organized in the neighborhood does not necessarily have to be the most sustainable or appropriate option in the future, or for other neighborhoods.
… some parts of the evaluative framework are inherently contradictory. It needs to be rearticulated in the fuzzy everyday which part of the evaluative framework is the one that should inform a practice.	Organic dairy farm: For Hans, connectedness with the land is the core value of the land ethics. However, one time connection implies doing nothing and welcoming those who come. Another time it implies that a place should be made suitable for plants and/or animals. The value is therefore fixed, but it cannot lead directly to a certain choice, because the more specific principles are contradictory.
… it is not clear (yet) whether the ethical principle is indeed ethical in certain situations.	Food forest: Ine is not very firm about the precise working method of food forests because food forests are still in an experimental phase. She is especially unsure about the principle of modesty of intervention, because this strategy may not yield enough food production if taken too far. Moreover, it can also be offsetting for people that they cannot intervene to help (individual) trees and bushes grow well. This hampers the ability for people to feel ownership and connect to the food forest. Therefore, Ine rearticulates the principle of modesty in intervention in everyday situations. In this way learns how and when it is indeed ethical to be modest in intervention.

Although none of the evaluative frameworks was entirely fixed, there are clear differences between the extent to which evaluative frameworks were fixed. Elea's land ethic was the least fixed, because she makes choices based on her feelings when things come her way. Elea thus tries to rearticulate 'the good' for each situation, so that a decision feels right for that specific situation. The foraging cases, on the other hand, was the only case that was mostly fixed, because the evaluative framework accounted for most situations that occur

within the context of the initiative. As a result, many things did not need to be reconsidered in the fuzzy everyday.

When a land ethic becomes more refined and practice-tailored over time, it is possible that the ethic becomes more fixed, so that less is rearticulated in the fuzzy everyday. However, rearticulating ethics should not be considered merely 'a phase' in the development to a fixed ethic. Parts that used to be fixed can become rearticulated in the future, based on new insights or situations. Moreover, some parts of the evaluative framework will remain rearticulated in the fuzzy everyday: even the most refined, specific, practice-tailored land ethic would not be able to directly 'translate' into ethically informed practices, because, in Dylan's words: "the multifaceted and dynamic reality […] will always surprise you. […] One should not have the illusion that it is possible to capture everything on paper beforehand."

4.3 Dynamics between ethics and practice

This paragraph is dedicated to the findings regarding the dynamics between ethics and practice. Paragraph 4.3.1 focuses on the way in which ethics inform practical engagement with the land. In paragraph 4.3.2, the tensions and tradeoffs that occur with this engagement are discussed. Paragraph 4.3.3 focuses on the way in which practical engagement leads to new ethical ideas and refinement of existing ethics. This sub-paragraph concludes with explaining the co-evolvement between ethics and practice.

4.3.1 How ethics inform practical engagement with the land

In most situations, the values, principles and ideas that are part of the evaluative frameworks inform the decisions, judgments and practices of the initiatives. The design of the food forest is a good example of how the ethical idea of taking a constructive role can take shape in practice. Since the food forest has been planted on a wet site, the foundation selected species that are suitable for wetter conditions. At the same time, the foundation acknowledges that it would be favorable for food production if some parts were dryer. Therefore, soil ridges will be made to be able plant some edible species that need somewhat drier conditions. The soil that is needed to construct the ridges will be excavated from another part of the food forest to create a pond. The pond, in turn, is meant to attract wildlife, such as amphibians, insects and birds. This way of designing the food forest is informed by the land ethics underpinning the initiative. The construction of ridges shows that the ethical principle of taking a constructive role does *not* necessarily mean limiting human influence as much as possible: as long as the human influence is mostly positive for the diversity, resilience, and robustness of the system, it is fine to design, stimulate and intervene. In this example, the system benefits from the added diversity in microclimates and habitats and people benefit from the extra food production. If the food forest ethic was about limiting human influence, the construction of ridges would probably not be an ethically informed practice. Another example, from the ecological neighborhood, is how the association deals with the desire to reduce the hardness of the water that is pumped up from a well. Such decisions are informed by the land ethics underpinning the initiative, meaning that the solution needs to be supported by all members of the association and needs to consider all aspects of sustainability. Douwe: "our solution will then not be to use a lot of resources or chemicals or something like that." If the land ethics of the ecological neighborhood would not have required consideration of all aspects of sustainability, a 'quick solution' may have been preferred. These examples show how the land ethics are a leading guidance when it comes to daily practices.

As the land ethics are very much intertwined with and tailored to practice, they generally work well in practice. Many potential tensions are 'addressed' within the evaluative framework. For example, in the ecological neighborhood, there are no tensions between

the principle of living organically (i.e. sustainably) and the principle of letting members make their own choices. Douwe thinks this is because the sustainable basis is solid due to how the neighborhood has been designed and built, and how it is governed. Outside of that sustainable basis, members can choose for themselves how much they want to be involved with sustainability. The mission and vision are connected mainly with the construction of sustainable houses for some members, and less with other aspects, such as food and airplane holidays. Thus, even though Douwe is sometimes surprised to hear that not all his neighbors eat organically and like to go on airplane holidays, he and other members accept that as part of giving people freedom to make their own choices. Thus, because the land ethics are practice-tailored, many potential tensions and tradeoffs have been creatively dealt with. These 'solutions' are integrated within the land ethic. As a result, the land ethics are able to inform practical engagement with the land to a high extent.

There are some exceptions in which the land ethics do not inform practice. For example, Elea thinks that the connection with other residents in the neighborhood could have been more pronounced: "we live together in a neighborhood that we built together. But the connection here is actually much less than in some other communities." In most other instances, participants experience it as tension or tradeoff when ethics do not inform practice in a desired manner. The next paragraph delves into these tensions and tradeoffs.

4.3.2 Tensions and tradeoffs between ethics and practice

As mentioned in paragraph 4.3.1, many tensions and tradeoffs are creatively dealt with *within* the evaluative framework. This paragraph is about those tensions and tradeoffs between ethical principles and practices that are not (entirely) addressed within the evaluative framework. Those tensions and tradeoffs occur in practice because of financial reasons, yield/productivity, comfort, public opinions, scale, daily practice, or because of the impossibility to reconcile multiple (aspects of) ethical ideas. Table 5 provides some examples of tensions and tradeoffs that occurred in the transformational initiatives.

Table 5 Overview of the different circumstances that cause tensions and tradeoffs between ethical principles and practices. Each cause is illustrated by an example from one of the initiatives.

Reasons for tensions/tradeoffs	**Examples**
Finances	Ecological neighborhood: Douwe and Elea both mentioned that tensions occurred regularly between the principle to build organically and what was financially feasible: "Of course, we had to make a number […] of concessions from a purely pragmatic viewpoint. […] A very conscious choice has been made to make the ecological footprint as small as possible, while remaining affordable for average incomes." For example, polystyrene foam was used, while the members of the association tried to avoid this material as much as possible.
Yield/productivity	Foraging business: Tensions can occur between the ideal of intervening and manipulating as little as possible and the practice of managing a garden. Pieter says about this: "I think you should intervene as little as possible anyway. […] [But] when you start gardening, you are also intervening. […] So yes, I find that difficult sometimes, but I do think that we [humanity] intervene too much." Since zero intervention is no option when engaging with the land, Sara and Pieter are looking for a better balance between intervening and following natural processes in their land ethic. In practice, for example, Sara intervenes in the garden, but when she does, she ensures that nothing is wasted and that no permanent damage is caused. In this way, the tension between the ethical ideal and practice is navigated on a daily basis.

Comfort	Ecological neighborhood: A tension exists between the desire to build organically and the desire for comfort. The question here is 'what you actually need to live comfortably enough?' Elea likes to challenge herself to push her boundaries to go back to basics, but this is not the case for everyone. Some people, for example, replaced the initially installed compost toilet for a regular water-flushed toilet.
Scale	Food forest: In practice, the foundation and/or the clients sometimes want large food forests. Sometimes, this is at the expense of proper care for the food forest. Ine mentions as an example that it was not possible to protect the young trees against damage caused by game, because monitoring and intervention are more work. Another disadvantage is that it is more difficult to connect people to the food forest in large scale projects. This is due to the lack of overview. Smaller projects are easier to manage for the foundation as well as for the volunteers.
Public opinions	Food forest: The foundation believes that native and non-native species are both good options to plant in a food forest. In practice, however, not all non-native species are used because there is a risk of them becoming invasive outside of the food forest. An important consideration here is the critique from people outside of the foundation. Using invasive species might spark resistance (on top of the resistance that food forests already meet) and the foundation currently thinks that is not worth it.
Daily practice	Organic dairy farm: Difficulties of daily practice on the farm create tensions that constrain the possibilities for ethical engagement. Hans: "The daily practice, those are also days when everything goes wrong. On which there are broken machines, sick cows, mud, bad food, [and] quarrel with your wife, until you can go to bed at 12 o'clock, broken. That is also the daily practice." Even on the worst days, Hans was still mindful of the land: "I never do anything haphazardly. I always saw the consequence for those elements that are important to me. Animals, the land, the livestock." Hans sees it as a form of craftmanship to navigate around the tensions, but even a craftsman cannot always prevent tensions that arise in daily practice.
Impossibility to reconcile multiple (aspects of) ethical ideas	Organic dairy farm: Hans sees no major trade-offs between taking good care of the cows and the other animals and plants on the land, but Gijs does. In the breeding season it is a puzzle for Gijs to manage the natural land well and take good care of the cows, because the cows need grass to eat and land to walk on, while the birds need rest: "in spring […] we have only a few pieces [of land] that we can use for the cows, and they will be used pretty intensively. But you do that to spare the rest [of the land]. So say from March 1 to June 1 it is a lot of puzzling."

Tensions and tradeoffs can constrain ethical engagement with the land because they may result in prioritization of certain considerations over one or more ethical principles. The 'severity' of the tension or tradeoff, i.e. whether or not it leads to tough decisions, can vary. In some cases, this is because the ethical principle is not of great importance for the initiative, such as the use of potentially invasive species in food forests. In other cases, the ethical principle is considered of great importance, but the other consideration still clearly overrides the ethical principle. This is the case, for example, with the financial stability of the organic dairy farm business, because the entire initiative would seize to exist if the business were to go bankrupt.

Nevertheless, processes of prioritization can lead to tough decisions. Especially in the ecological neighborhood, decision-making processes over choosing the most sustainable building materials and techniques have been tough and slow, potentially because the decisions had to be supported by all members of the association. This can be explained because, even if people's evaluative frameworks contain similar principles, there can be

considerable variation in what people find (more) important and what they would (not) prioritize and compromise.

It is clear that tensions and tradeoffs are not entirely preventable when trying to consider the interests of an entire land community. Although tensions and tradeoffs can lead to tough and undesired choices, they can also be constructive for land ethics because they offer *possibilities*: they can lead to reflection, refinements, new ideas and creative solutions. The next sub-paragraph will delve into this dimension of tensions and tradeoffs.

4.3.3 How practical engagement finetunes existing ethics and inspires new ethics

The land community continuously provides feedback when certain things are tried out or practiced. In this way, the land provides opportunities to learn and reflect on ones ethics. In many cases, biocultural creatives would find the 'rightness' of their land ethics confirmed in practice. Nevertheless, all participants were aware that practical engagement with the land shaped and finetuned their land ethics. Although learning from the land can occur in any situation, two situations in particular were found to spark ethical reflection.

First, tensions and tradeoffs can provide opportunities to spark reflection and refine existing ethical ideas. Dylan described an example of another board member, whom I call Eric for convenience. When Eric had planted his first food forest, he thought it was good to ensure that the young plantings were free of surrounding (herbaceous) plants. This is a common practice in forestry. In the first year, he had started to do that, but he had only come halfway because it was too much work. The next season, it turned out that the young plantings that were not freed from surrounding plants were doing better than the ones that were. In this way, Eric learned that this particular intervention was unnecessary for good handling of the land.

Another source of finetuning existing ethics and inspiring new ethics, are things that happen spontaneously if you do nothing. Hans is convinced that, precisely when a farmer tries to control and intervene less, the spontaneous things that present themselves provide learning opportunities for better land management. For example, many farmers immediately kill whatever they consider to be weeds, but by not doing so, Hans has learned that some weeds are fine or even good food for cows. Gijs has also experienced this when he was not allowed to mow certain grasslands before a certain date because of the nature management: "For example, I have now harvested very nice hay because I was not allowed to harvest earlier. […] Sometimes, if you are not allowed to do things, then something new will develop and you will also learn that it makes sense and that you can also benefit from it."

The biocultural creatives show dedication to making their practices ethically informed. Due to the (attempts for) ethically informed practices and the continuous feedback from the land, there is a co-evolvement between ethics and practices. In this co-evolvement, ethics can become increasingly tailored to practical contexts. The development of ethics mostly happens gradually. The abovementioned examples are some concrete learning moments, but participants indicated that the evolvement of land ethics is a process that happens over years and years. Especially Hans emphasized that when he started, he acted mainly on his intuition, while continuously feeding this intuition with more knowledge. After years of experiencing, experimenting and practicing, he became more and more aware of the ethics that informed his judgments and actions. Lastly, it is important to note how tensions and tradeoffs have a constructive quality because they provide opportunities for refining ethics. For some of the unresolved tensions and tradeoffs that occur in the initiatives, ways may still

be found in the future to alleviate them, while others are likely to remain. In conclusion, the dynamics between ethics and practice are crucial for the development and refinement of the land ethics that underpin transformational initiatives.

4.4 Contribution of land ethics to sustainable development beyond the initiative

All initiatives have an explicit link with sustainability. It was found that all initiatives also contributed to sustainable development beyond their business, association, foundation and personal lives. In paragraph 4.4.1, it is discussed how the land ethics play a crucial role in this contribution. Paragraph 4.4.2 focuses on the styles of how land ethics are expressed and paragraph 4.4.3 on the scale on which this expression takes place.

4.4.1 Ways in which land ethics (could) contribute to sustainable development

The participants were aware of how their land ethics (could) contribute to sustainable development. The land ethics underpinning the initiatives have three features that enabled their contribution to sustainable development beyond the initiatives. First, the land ethics are an innovative combination of (mostly commonly known) ethical principles that are combined in a new way. As such, they provide a new perspective that is different from the current moral order (see box 6). A significant part of their strength is that the land ethics include ways to deal with things that were previously thought of as irreconcilable tradeoffs between ethical ideals and practical reality. Second, the land ethics have developed – and are developing – by experimenting with these new, ethically informed ways of relating in practice. Ongoing experimentation has resulted in practice-tailored ethics that are specific enough to provide detailed guidance, but that are flexible enough to be applied in many different contexts. Third, the land ethics do not only exist as ideal, but (mostly) also as reality. Even though land ethics are an implicit dimension of reality, their guidance results in highly tangible behaviors and material outcomes.

Box 6 Main differences between the land ethics that underpin transformational initiatives and the moral order, according to the interviewed biocultural creatives.

The land ethics underpinning the initiatives are transformational because they are different from the moral order that is currently dominant in The Netherlands. Even though the four initiatives were different in terms of their land ethics and ethically informed practices, there were similarities in the ways they distinguished themselves from the dominant moral order. The most important way is that the land ethics underpinning the initiatives do not prioritize the maximization of profits, yields and production. For the biocultural creatives, the problem of this maximization is that it becomes necessary to control and intervene a lot, taking away opportunities for nonhumans to live there. Ine describes this mindset as "you basically destroy everything just to harvest what you have planted." The biocultural creatives think that more consideration of nonhumans is important because they also need opportunities to live. Another problem of the intensive intervention that is necessary for production maximization, is that it has many negative side effects. Eventually, this will jeopardize production as well, because, for example, soil life is diminished.

The alternative is to take a different perspective, which was described as an integrated approach or as 'starting from the whole'. This implies that not one aspect, such as production is maximized, but that a balance is sought between many aspects. This allows to give more room to the natural processes of the land, enabling the development of resilient systems that do not *need* much intervention to offer benefits and opportunities for both humans and nonhumans. Thus, the idea is not to diminish human influence on nature, but to search for a coexistence.

The land ethic of the ecological neighborhood also explicitly considered that nonhumans should have a place to live. However, their initiative was not necessarily about producing or harvesting food, but about building and living. Therefore, their initiative also challenged the moral order by emphasizing that living sustainably requires balancing of all aspects of sustainability. According to Douwe, sustainable building and living is broader than many people think. It is often the case nowadays "that you build a [regular] house and then only put installations in it to compensate for it a bit. […] Until now, that is what [is being done] with regard to sustainability […] And that can really be done differently."

An important implication of the land ethics of the transformational initiatives is that they require a reconsideration of human needs and wishes. For example, the foraging business does not only reconsider how much harvest one should take from a piece of land, but their ethic also implies a change in diet. The same applies to the food forest: the harvest is rich and diverse, but many species are not commonly used in Dutch cuisine. Similarly, the ecological neighborhood does not only reconsider how much building materials and techniques may cost in terms of money and effort, but also what kind of facilities people need in their houses to live comfortably.

While the land ethics and ethically informed practices of the initiatives clearly challenge the moral order, many participants emphasized that they also do not know what would be best and do not claim that they have 'the' solution for sustainable development. Moreover, they showed understanding for the situations of other people, who might not be in the circumstances to change. At the same time, they felt that their initiatives had something to offer to sustainable development.

Due to the combination of land ethics that are innovative, practice-tailored and highly tangible, the initiatives shows that certain ethically informed practices – that are generally viewed as unattainable or 'too idealistic' - are actually feasible. Hans, for example, has met many people from farming families who would like to switch to nature inclusive farming, but everyone keeps telling them that it is not possible for financial reasons. Hans's farm makes these people feel inspired and empowered, because Hans manages to do what they want for their own farm. Similarly, the food forest initiative aims to prove that it is possible to have rich, biodiverse ecosystems in which not much intervention is necessary, while still producing a lot of food. The transformational initiatives do not only show that certain ethically informed practices are feasible, but also disprove existing prejudices. For example, Sara and Pieter show that eating wild plants is not dirty, and Douwe mentions that many people apparently think that sustainable living in harmony with nature means that you live in a very primitive way, without modern equipment and technology: "People are then partly surprised that we don't live in a cave underground."

Some participants also mention the limitedness of the change their initiatives make. For example, Sara finds it difficult sometimes that people are interested in foraging, but not in changing their lifestyle: "everyone continues to consume a lot of meat and everything. And then they add a leaf of [wild] nettle to it, but it does not contribute much." Moreover, challenging the moral order in such a visible way causes resistance amongst some people. Especially Hans experienced fierce resistance against his plans to transform the farmlands into nature. Food forests are also met with hostility at times and Pieter and Sara have received angry letters from people who think wild picking will cause overexploitation of nature areas. Elea and Douwe did not mention hostile reactions from others, but still

experienced high costs of being involved in the initiative. This was because the period of construction was extremely intensive, as most members of the association were unexperienced with construction work and did it next to their regular job. Despite the difficulties and resistance, the biocultural creatives are motivated to keep going because they get fulfillment from doing what they think is ethical, inspiring others, and making a contribution to sustainable development.

4.4.2 Modes to express land ethics to people outside of the initiative

This sub-paragraph discusses how biocultural creatives express their land ethics to people outside of the initiative. Except for Gijs from the organic dairy farm, all participants want to express their ethics beyond the initiative. They have the wish to inspire others to change their ideas and practices. In practice, initiatives mainly focus on those people who are mostly enthusiastic about their initiative rather than those who are not. This is because biocultural creatives especially express their ethics to people who voluntarily approach them. These are people who, for example, signed up for a tour or a course, or because they are interested in the practices of the initiatives. The people who are sceptic or resistant to the ethics underpinning the initiative usually stay away. Apart from risking hostile reactions, it also costs a lot of energy to express ethics to people who are not interested or strongly oppose them. Hans, for example, learned from experience that is better to focus on people who are interested, because otherwise people are not open to listen to his story. Also Dylan and Douwe emphasized that they prefers to invest his energy in people who are enthusiastic about food forests and sustainable living, respectively.

Participants are aware that their land ethics are not the only right way of thinking, so no one wants to impose their land ethic on anyone. They have mentioned different ways in which they express their ethics to people beyond the initiative. Their preferences were context-dependent and personal, in the sense that they were not necessarily consistent with the other participant from the same initiative.

Preaching: presenting ethics as obligation

Most participants are hesitant to express their ethics in a prescriptive manner. When touching on the expression of ethics during the interviews, participants would say things like "[I don't] really say 'you have to do this and you have to do this'" (Sara). However, there are some exceptions. With their foraging workshops and courses, the specific principles of respectful foraging are presented as prescriptive. Sara and Pieter say that this has never been met with resistance. The food forest foundation uses a mode of expressing ethics that resembles preaching when they help agricultural entrepreneurs with setting up food forests. This is necessary for gatekeeping, because entrepreneurs sometimes want a food forest without sticking to some important ethical ideas that the foundation has about good food forestry (e.g. modesty in intervention).

Moreover, Dylan (food forest), Douwe (eco neighborhood) and Pieter (foraging) mentioned that they sometimes do present their ethical ideas quite firmly. They only do this in specific situations and do not preach in the sense that they present their ideas as prescriptions. Instead, they are explicitly normative in expressing their ethics: they emphasize what they find important and why, but also why other ideas are not accurate in their view. Being explicitly normative is an implicit way of suggesting that others should reconsider their ethics. The other participants preferred to stay away from anything that resembles preaching ethics. Especially Elea and Gijs emphasized that they do not want to come across as if they know things better than others.

Inviting to relate: being an example

The alternative to preaching and the direct/strong form of being normative, that came up with each participant, is to be an example. Participants show people around, tell people how they relate with the land and why that is important to them. Thus, they are explicitly normative, but nowhere near to being prescriptive. Moreover, participants let others experience things as well: Pieter and Sara let others taste edible wild plants; Ine and Dylan let others taste the leaves of an unknown but delicious tree; Elea lets people in her house to feel how well the temperature is regulated by the thick walls; Hans shows visitors how the cows are walking around on the farm freely and points out which birds are hiding in the reed. Being an example and letting others experience are thought of as powerful ways to express ethics and inspire people. These are the modes of expressing ethics that are more than merely practicing, but not preaching either. They fall in between as they present ethics not as norm that people should live up to, but as invitation to relate with.

Practicing

In a way, merely practicing ethics can also make an initiative an example. This is more of a passive way of being an example. Douwe put this nicely into words, by saying "in fact, living here is already a statement." Gijs currently prefers to be a more passive example. He knows that what he is doing is visible for the outside world and is OK with that. Nevertheless, he wants to get things right on the farm before becoming more oriented towards showing the initiative to the outside world. If people are interested, however, he is very welcoming and willing to show people around and let them learn about the ideas and practices of the initiative. Thus, he is open to do more than practicing, but is not (yet) actively pursuing that.

4.4.3 Scales on which land ethics are expressed

When looking at the scale on which the land ethics are expressed, all initiatives are bioregional, meaning they have a local or regional focus in the expression of their ethics. The extent to which the initiatives were also transregional varied. For example, the foraging business mainly focuses on the local or regional level, because most of their annual courses take place in the region. The organic dairy farm also its impact on a local and regional level, because of the close relations between farmers in the region. However, Hans has a strong national focus as well. For example, he has assisted other farmers in various provinces with the switch to nature-friendly farming as a consultant.

None of the initiatives had a strong international focus. The food forest foundation participates in some internationally-oriented research programs and also expresses their land ethics through international symposia about agroforestry. Some residents in the ecological neighborhood are connected to international networks for sustainable living and the neighborhood gets some exposure due to social media. Nevertheless, these can be considered small side-activities for the initiatives. Some initiatives are becoming increasingly engaged on an international level. For example, Hans has more time for international projects since he does no longer work on the farm on a daily basis. He recently traveled abroad at the invitation of the national government of an Asian country to support local farmers in their nature-friendly practices. For the other participants, the reason for their limited global engagement is not necessarily a lack of interest, but because they feel as if there is more than enough that they can do in the Netherlands.

5. Discussion

In this chapter, the theoretical approach, methodology, and results are discussed. Paragraph 5.1 reflects on the methodology. In paragraph 5.2, the transformational nature of the land ethics underpinning the studied initiatives is interpreted by intrinsic, instrumental and relational value. Paragraph 5.3 discusses how the land ethics of biocultural creatives might contribute to sustainable development, even though the transformational initiatives seem to focus primarily on people who already agree (to some extent) with their land ethics. The last paragraph reflects on the theoretical framework for descriptive ethics that was developed in this thesis, and more generally on the use of descriptive ethics as an approach to studying environmental issues.

5.1 Reflection on methodology

5.1.1 Assessing the quality of this study through information power

As explained in paragraph 3.2, the idea of this thesis was not to reach a data saturation point to make the results generalizable or to develop a theory of land ethics. Instead, I strived for sufficient information power. This is an alternative to data saturation, proposed by Malterud et al. (2016). A study has information power when the collected data is sufficiently rich to be able to address the research questions and meet the study objective (Malterud et al., 2016). The objective of this thesis was to examine how land ethics underpin four transformational initiatives in the Netherlands, to contribute to the understanding of possible ways to change the ethics of relating to the land in practice. Due to this explorative objective, the three relevant criteria for information power are that the cases are exemplary (Timmerman et al., 2019), that the participants are knowledgeable on the phenomenon under study (Timmerman et al., 2019), and that the interviews are characterized by a high quality of dialogue (Malterud et al., 2016). The next sub-paragraph elaborates on the first two criteria and the third sub-paragraph elaborates on the last criterium.

5.1.2 Quality of the selected cases and participant sample

For the case studies to deliver information power, they needed to be exemplary. For this study, this implies that the cases should be truly transformational. When selecting the cases, it was possible to make a sufficiently informed judgment about the transformational character of the initiative based on websites, blogs, interviews, and explorative phone calls. The results confirmed that all four selected initiatives were indeed truly transformational. For each initiative, two participants were selected for the interviews. The foraging case and the organic dairy farm case only had two people involved in the core of the initiative. Since all of the biocultural creatives of these two initiatives have been interviewed, an accurate idea could be formed regarding the land ethics underpinning the initiatives. For the food forest case and the ecological neighborhood case, this was more challenging.

The ecological neighborhood case has shown that there are transformational initiatives in which many individuals work together while their land ethics differ significantly. By interviewing two participants, it became clear that the mission and the vision formed the core of the land ethics of the initiative. To find out whether there are more ethical ideas that are (mostly) shared within the initiative, a larger sample size would have been necessary. Nevertheless, it is quite likely that the mission and vision are indeed the only ethical ideas that are shared across the initiative, especially because acknowledging personal preferences for living in relation with the land was such an important premise of the initiative. For the food forest case, it was possible to gain insight in the ethical ideas underpinning the land ethics to a reasonable extent. This is because the foundation uses

the same basic principles for all their food forests. However, for this case there were significant differences in the parts of the evaluative framework that were emphasized by the interviewees. Interviewing more biocultural creatives could have yielded more insight in such differences, and in what these differences mean for the extent to which there is a shared land ethic underpinning an initiative. Thus, the accuracy of the case analysis would have been higher if more than two participants would have been interviewed for the initiatives in which many people are closely involved. Nevertheless, interviewing two biocultural creatives of larger initiatives also resulted in sufficiently accurate and rich pictures of the land ethics underpinning the initiatives.

5.1.3 Quality of semi-structured interviews as data collection methodology

The interview procedure has been designed in such a way that it accounts for the inherent challenges of interviewing as much as possible. A design feature that enhanced the quality of the data, has been the second interview with each biocultural creative. Doing two interviews per participants has shown to be an effective strategy to verify the findings from the first interview and collect additional data. All participants indicated that the primary analysis generally represented their views accurately. Nevertheless, most participants rectified some mistakes, misinterpretations and directed attention to aspects that did not receive sufficient emphasis in the preliminary analysis.

Another important benefit of doing two interviews is that they provide the opportunity to ask additional questions. Despite the carefully designed interview guide, covering all relevant aspects in one interview turned out to be difficult, especially with talkative participants. During the analysis of the first interview, it was easy to pinpoint which guiding questions were not yet entirely addressed. As a result, the second interview was more focused, filled in the 'gaps' in information and pinpointed where the preliminary analysis had fallen short. Therefore, the additional value of the second interview was crucial to achieve the depth of analysis that was needed to address the research questions. As such, doing two interviews per participant has attributed considerably to the information power.

Although the limitations of interviews have been addressed as much as possible in the design of the interview procedure, they can only be mitigated until a certain extent. Interviewing is an indirect methodology, which means that the data is a participant's *interpretation* of thoughts and practices (Bueger, 2014). An inherent limitation is therefore that it is difficult for participants to recall certain situations or experiences and reflect on them (Gittelsohn et al., 1998, in Sugarman & Sulmasy, 2001; Lempert, 2013). Therefore, combining interviews with more direct research approaches might increase information power. Other explorative, qualitative studies investigating ethics or closely related concepts, have used more direct methodologies such as participant observation or ethnographic approaches (e.g. Puig de la Bellacasa, 2010; Vosman, 2018). With these methodologies, it is possible to ask questions during or shortly after participants are engaged in certain practices. These methodologies can also improve the quality of interaction between the researcher and participant, because the researcher can ask questions that are directly related to what was observed. Employing direct methodologies next to interviewing was not feasible within the scope of this study. Nevertheless, in-depth interviewing has been a suitable method for this study and has contributed to the information power, despite its limitations.

In conclusion, the information power of this study is not optimal, but sufficient to meet the study objective. Without claiming that the empirical findings of this study represent all Dutch

transformational initiatives, this thesis has provided valuable insight into the possible ways to change the ethics of relating to the land in practice.

5.2 Conceptualizing the transformational nature of the land ethics of biocultural creatives

This paragraph explores how the transformational nature of the land ethics underpinning the initiatives can be explained by the concepts of instrumental and intrinsic valuation. These two ways of valuing the nonhuman world are central in the field of environmental ethics (McShane, 2009). Instrumental valuation means valuing the natural world because of its usefulness for human survival and the satisfaction of preferences (McShane, 2009). Intrinsic valuation means valuing the natural world for itself, whether it is considered 'useful' or not (McShane, 2009). As mentioned in the introduction, one of the most fundamental critiques on the Western ethic is that it values nature mostly or solely instrumentally and not intrinsically (Plumwood, 1991; Latour, 2017; Müller & Pusse, 2017). Therefore, the Western ethic is human-centered, which is associated with poor care for the environment and the ecological crisis (McShane, 2009). A way for an alternative ethic to be transformational, then, is to make it less human-centered, also called 'decentering humans' (Puig de la Bellacasa, 2010).

The results show that the biocultural creatives of this study value the nonhumans of the land both instrumentally and intrinsically. Instrumental value is represented in the evaluative framework in parts like making use of the natural processes of the land for food collection or production, living, building, and milk production. Intrinsic valuation was represented in ethical principles such as valuation of agency of natural processes, equal worth of all beings, minimizing damage to nonhumans, and giving nonhuman others the opportunity to live their lives. Because of this intrinsic valuation of the nonhuman part of the land, humans are decentered in the land ethics of the transformational initiatives, making them different from the anthropocentric moral order. Thus, elements of both instrumental and intrinsic valuation are visible in the evaluative frameworks and are good ways to conceptualize how land ethics are transformational.

However, there has been some discussion on the limitations of the intrinsic-instrumental dichotomy for making sense of people's relations with nonhumans (see e.g. Hourdequin & Wong, 2005; Holland, 2012; Chan et al., 2016). Holland (2012) argues that intrinsic value "casts humans in the role of detached valuer, rather than engaged participant and is blind, therefore, to the values that might be generated as a result of our working with nature, instead of just observing it" (Holland, 2012, p. 5). Chan et al (2016) point out that, although instrumental valuation is connected to relations with valued entities, it only accounts for the preferences and needs of humans and not for those of nonhumans. For the results of this thesis, this implies that neither intrinsic nor instrumental valuation fully account for *the valuation of the relations* biocultural creatives have with the land. This valuation, called 'relational valuation,' stems from a sense of embeddedness or interdependence (Chan et al., 2016). This is a central theme in the land ethics of the transformational initiatives. It is represented in principles such as 'living in connectedness', 'connection with the rest of nature', 'taking a constructive role' and 'living in harmony with nature'. As engaged participants in the land, the biocultural creatives attempt to balance the perceived needs of nonhumans with the needs and preferences of people. As such, the biocultural creatives develop 'response-ability' towards the nonhuman parts of the land. Response-ability is the capacity to respond to the needs of others, "in ways that are never perfect, never innocent,

never final, and yet always required" (Van Dooren & Rose, 2016, p. 19). From a relational perspective, the initiatives are not so much decentering humans because of intrinsic valuation of nonhumans, but because the initiatives have developed response-ability regarding the nonhuman world (Moriggi et al., 2020).

Thus relational valuation is an alternative way to explain the transformational nature of the land ethics of biocultural creatives in conceptual terms. The more traditional conceptualization with intrinsic and instrumental value is remains relevant, but has its limitations (Chan et al., 2016). Therefore, the relational perspective has additional value and can be complementary in conceptualizing why the land ethics of biocultural creatives are transformational.

5.3 Ethical innovation, dedication and transformational change

As explained in the results, the land ethics that are developed in transformational initiatives are innovative, practice-tailored and tangible. I suggest to call the development of such ethics 'ethical innovation'. Ethical innovation is enabled by the significant dedication of biocultural creatives to their land ethics. This dedication speaks from the fact that the interviewed biocultural creatives are all willing to continue and develop their ethically informed practices, despite the discomfort, resistance and hardship that it sometimes brings.

The results show that biocultural creatives use their ethical innovations to contribute to sustainable development beyond the transformational initiatives. In expressing their ethics, the interviewed biocultural creatives generally prefer to focus on people who are interested in what the creatives think and do. Considering that the dominant moral order is rather different from the studied land ethics, one would expect that the largest part of the Dutch population disagrees with these land ethics. However, research by Van den Born (2007) suggests that the majority of Dutch people does not approve of the dominating tendencies of anthropocentrism and tends toward nonanthropocentric ideas regarding the human-nature relationship. There are two potential implications of this insight. First, it suggests that, whereas the land ethic of biocultural creatives is to a large extent a lived ethic, this is not the case for many others, since the anthropocentrism still dominates the Dutch moral order (Van den Born, 2007). It is also likely that part of this group approves of nonanthropocentric values but attributes little priority to them (Leiserowitz et al., 2006). Nevertheless, it might also mean that there is a significant portion of the Dutch population interested in the ethical innovations taking place in transformational initiatives.

Focusing one's efforts on those people who already agree (to some extent) with the land ethics of the initiative, could be called 'preaching to the converted'. However, the common insinuation of that phrase, namely that it is useless to 'preach' to the converted (see e.g. Pyke, 2017), is not accurate when applied to the expression of transformational ethics. If there are people who are starting to commit more to their ideas to become, for example, less anthropocentric, then it is far from self-explanatory *how* this can be done in practice. As mentioned in the theoretical framework, lack of skill or perceived efficacy are considered important barriers to perform ethically informed practices (Leiserowitz et al., 2006). For those people, the ethical innovation done by biocultural creatives can pave the road. Land ethics are embedded in different practices that together make up a way of life (Puig de la Bellacasa, 2010). Presenting such a lived alternative to the moral order can be inspiring to others. By embodying a lived alternative, biocultural creatives can show the array of options to consider, help to reimagine the possibilities and even assist in making a practical change.

Instead of 'preaching to the converted', a more accurate phrase would therefore be 'teaching the converted'. Teaching the converted can be done in many different ways. It does not require that people 'adopt' the entire land ethic underpinning an initiative. It is also possible to take over a couple of ethical ideas or even a single practice. What is clear, is that the ethical innovations and 'teaching' about them, impacts people far beyond the initiatives for sustainability. It remains speculative whether, and to which extent this impact contributes to a change of the moral order that is currently dominant in Dutch society. Nevertheless, this thesis shows how biocultural creatives develop potential alternatives for the moral order.

5.4 Reflection on descriptive ethics to study environmental issues

5.4.1 The (potential) contribution of descriptive ethics to environmental research

In essence, there is no difference between the merits of descriptive ethics and other forms of descriptive inquiry. However, as discussed in paragraph 3.1, descriptive ethics is not often used in (environmental) research. Therefore, I will shortly outline how I see its potential contribution. The first potential contribution is admittedly rather straightforward: descriptive ethics can help to further in-depth understanding of complex socio-environmental phenomena (Haimes, 2002; Hämäläinen, 2016). This is also the kind of contribution of this thesis. The results of thesis show how this approach has been helpful in providing an in-depth account of the land ethics that exist in practice, thereby furthering the understanding of transformational initiatives and their contribution to sustainable development. By its qualitative character and ability to take into account complexity, descriptive ethics can bring more richness into the current field that calls itself 'morality studies' (Hämäläinen, 2016). This field is currently mostly quantitative and studies ethics through questionnaires, moral vignettes and thought experiments (Hofmann et al., 2014).

Second, the insights of descriptive ethics can serve as input for moral philosophers for further theorizing about the ethical dimension of the social world (Hämäläinen, 2016). Although moral philosophers – at least in the applied branches such as environmental ethics – use real life situations for their theorizing, "they seek to replace the ongoing muddle with clear principles for normative thought" (Hämäläinen, 2016, p. 13). Directing more attention to this ongoing muddle of people's moral lives might result in more attention for new or minor theoretical approaches. The results of this thesis suggested, for example, that a relational approach can be a useful perspective to understand land ethics. This approach, however, is theoretically far less developed than the common instrumental-intrinsic value binary (Hourdequin, 2015). Hämäläinen (2016) suggests that descriptive ethics can lead to better and more socially accurate moral theorizing, thereby creating more opportunities for societal impact.

Lastly, descriptive ethics can also be used for participatory research, to support the conversation and deliberation regarding relations with the land. Especially through interviews, descriptive ethics are articulated in reflective interaction between researcher and participant(s) (Timmerman et al., 2019). Letting people reflect on their ethics and those of others can contribute to the conversation about what good relations with the land constitute (Hourdequin, 2015). Moreover, it can be empowering for people to gain a better understanding of their own ethics, because it can spark reflection and it can help explain their motives to others (Mertz et al., 2014; Timmerman et al., 2019).

The latter two potential contributions both have descriptive ethics at their core, but take it a step further than only using descriptive ethics to better understand social phenomena. This increases the potential for societal impact, be it through participatory research or through

better ethical theorizing, making them promising avenues for future research. In making societal impact, I suggest that it is particularly useful to direct the efforts of descriptive ethics regarding the environment to see how people - such as biocultural creatives – navigate around all the personal, social, institutional, and infrastructural barriers to develop sustainable relations with the land. As Hourdequin (2015) puts it:

> "understanding obstacles is key. But how can we best navigate around them? In weaving our way through the thicket we may do best to seek the openings rather than focus too closely on the barriers. This may help us avoid being overwhelmed by our shortcomings, or by the enormity of the environmental challenges that we face" (p. 211).

5.4.2 The value of the theoretical framework developed in this thesis

In this thesis, I developed a novel theoretical framework for descriptive ethics using sensitizing concepts. This framework combines multiple existing concepts related to ethics to operationalize them for empirical research. On a crucial point, my theoretical framework is based on a traditional approach to ethics: ethics are conceptualized as a dimension that is entwined with, but nevertheless exists separately from the practical realm (Blackburn, 2001; Lambek, 2010; Hämäläinen, 2016). However, from a traditional perspective on ethics, my theoretical framework has an unusual focus in multiple ways. First, there is more attention for the ways in which ethics are entwined with practice. This also focused attention on the more specific and contextual parts of evaluative frameworks, the non-fixed states of ethics in practice, and the co-evolvement of ethics with practice (Plumwood, 2003; Puig de la Bellacasa, 2010; Latimer & Puig de la Bellacasa, 2013). Second, ethical engagement of individuals is conceptualized as based not only on 'rationality', but also on emotions, feelings, and intuitions (Plumwood, 1991; Prinz, 2006; Moriggi et al., 2020). Both moves have been mainly inspired by the critiques of care ethicists and ecofeminists on traditional environmental ethics. I suggest that these are useful conceptualizations to include in a theoretical framework for land ethics, especially because it allows studying how "our solutions to the challenge of living well in relation to then natural world will always be tentative and provisional, subject to reevaluation as we learn more and as contexts change" (Hourdequin, 2015, p. 190). As such, the theoretical framework is a tool for providing insights on the ongoing search for better ways of relating with the land.

Although my framework incorporated certain critiques to make the more traditional approach to ethics suitable for studying 'real world' ethics, I realize that the conceptualization of land ethics could have been further removed from traditional takes on ethics. Here, I want to discuss an alternative avenue for conceptualizing land ethics, provided by Puig de la Bellacasa (2010; 2017) and Latimer & Puig de la Bellacasa (2013). In these articles, the authors conceptualize ethics as social practice. With this approach they take "distance from ethics as the enactment of [pre-existent] normative stances" (Puig de la Bellacasa, 2010, p. 162). This implies that ethics are not a domain that exists 'outside of', 'before' or 'after' practice. Puig de la Bellacasa (2010; 2017) emphasize that ethicality is not grounded in a 'system' of norms, but in ethos, which is a style or way of living. In this conceptualization, *"norms* and *principles* are particular modes of expression of ethos formation and de-formation" (Puig de la Bellacasa, 2010, p. 163). The main rationale for this conceptualization, seems to be that "the actual *ethos* at play in specific practices tell us more about the possibilities of ethics in practice than the normative ethical grids" (Puig de la Bellacasa & Latimer, 2013, p. 159).

Thus, conceptualizing ethics as social practice is an alternative for envisioning ethics as framework of ideas and principles that can inform practice, and thereby also exists outside of practice. Although I agree that people's ethos – which seemingly resembles what I call a 'lived ethic' in this thesis – is relevant to study, I suggest that studying ethics as framework of ideas, values and principles is relevant as well. The results show that most land ethics do inform practice, but that this does not always have to be the case. Nevertheless, this does not render the ethical principle in question meaningless and less relevant to study. The existence of such principles signifies a desire for doing things differently and a potential for development or new ethically informed ways of relating with the land. They might not (yet) be part of of one's ethos (i.e. one's way of living), but they determine the direction of the dedication of biocultural creatives. Similarly, the existence of more ecocentric values in the Dutch population (Van den Born, 2007) might create the openness to the land ethics of transformational initiatives, even if these ecocentric values hardly inform practice. Here as well, ethical ideas, principles and values create the potential for learning, development and future commitment. Therefore, I think conceptualizing ethics as ideas was a relevant part of the theoretical framework.

In future studies, the theoretical framework can be adapted, improved and refined, based on new or alternative insights (Bowen, 2006). The results of this study suggest that it might be useful to center stage other concepts related to ethical questions, such as questions of prioritization, or the navigation of resistance of people that disagree with the ethics of an initiative. The theoretical framework used in this thesis can certainly be developed further. At the same time, it has been able to focus attention on fundamental aspects that are of importance to understand how land ethics underpin transformational initiatives. As such, it is a modest contribution to the field of descriptive ethics and hopefully an inspiration to other scholars.

5.4.3 Consequences of descriptive ethics: politicization of ethics

To end this paragraph, I want to reflect shortly on the consequences of bringing ethics – a phenomenon that has traditionally been approached philosophically – to the empirical and practical realm. According to Hourdequin (2015), "any practical environmental ethics must in some way be political" (p. 196). Traditionally, the ethical is thought to be of as a private affair, whereas the political is thought of as a public affair (Puig de la Bellacase, 2010). By recognizing the struggles of transformational initiatives as ethical struggles against the dominant moral order, my conceptual framework for descriptive ethics blurs the lines between the ethical and the political. Puig de la Bellacasa (2010) also explicitly connected these two domains, and therefore speaks of "ethico-political practices of change" (p. 157). Land ethics remain a deeply personal affair, but the results confirm that they are not limited to the personal. In order to address the problems of the Western environmental ethic and change the dominant moral order, "we need a notion of personal ethics related to collective ethico-political movement" (Puig de la Bellacasa, p. 157). Some authors are worried that stepping away from the idea that there is only one 'true' or 'right' morality, makes everything potentially ethical. This would be problematic because then, having "intentional ethical *commitments* makes no particular difference" (Puig de la Bellacasa, 2010, p 154). However, recognizing the ethical in many aspects of daily life can still mean that "some ethical views may be better than others" (Hourdequin, 2015, p, 24). This thesis, for example, also started from the point that the Western environmental ethic is considered problematic and that changing this ethic may be an important step towards addressing the ecological crisis.

To conclude, an increased focus on ethics has the potential to shake up thinking about the ecological crisis, relations with the land, and sustainable development. Academics has a contribution to make here, for example by rendering transformational stories visible, by facilitating dialogue or by offering philosophical reflections. For all these things, descriptive ethics can be used as a starting point. As such, descriptive ethics have the potential to help bringing land ethics back – explicitly - to where they should be: in the midst of society, embedded in the political realm of sustainable development.

6. Conclusions

This thesis has explored the land ethics that underpin Dutch transformational initiatives for sustainability. This was done by interviewing biocultural creatives that are closely involved in four transformational initiatives. The main question was ***"how do land ethics of biocultural creatives underpin Dutch transformational initiatives for sustainability?"*** This question has been addressed through three sub-questions.

The first sub-question is ***"how can the land ethics that underpin the transformational initiatives be characterized?"*** In the ethical ideas that were more on the abstract range of the spectrum, recurrent themes across initiatives were living in connectedness with the land, less intervention to let natural processes run their course, minimizing damage to the land, and supporting or caring for the land. The more specific parts of the land ethics build upon these abstract principles, but are more tailored to specific contexts of relating with the land. In each initiative, this takes a different shape because of the different contexts in which the initiatives operate. Part of the values, ideas and principles of the land ethics are characterized by being fixed and normative, while others – both specific and abstract – are rearticulated in daily situations. Some parts of the land ethics need to be rearticulated in the fuzzy everyday because (1) they are inherently contradictory; (2) it is not (yet) clear for the biocultural creative whether the principle is indeed ethical; (3) the ethical value, idea or principle does not lead one-on-one to certain choices. Thus, land ethics are characterized by a constantly developing framework of ethical principles, ideas and values on both abstract and specific levels. Parts of this framework can become more fixed over time, but ultimately, relating with the land in an ethical manner is complex and dynamic and will require rearticulation of ethics.

The second sub-question is ***"what are the dynamics between land ethics and practical relations between people and the land?"*** The land ethics found in the initiatives are closely related to practical relations with the land. Although there are exceptions, land ethics generally inform decisions, judgments and practices to a high extent in the transformational initiatives. Nevertheless, tensions and tradeoffs between ethical ideals and practice occurred because of financial reasons, yield/productivity, comfort, public opinions, scale, difficulties of daily practice, or because of the impossibility to reconcile multiple (aspects of) ethical ideas. They are not entirely preventable when trying to consider the diverse interests of a land community. Still, because of the dedication of biocultural creatives to their land ethics, ways may be found in the future to make practices (more) ethically informed, for example when circumstances change.

Due to the dedication to ethically informed practices and the continuous feedback from the land, there is a co-evolvement between ethics and practices. In this co-evolvement, ethics can become increasingly tailored to the practical contexts of the initiative. Situations in which practical engagement with the land especially inspires new ethical ideas and refines existing ethical ideas are things that happen spontaneously if one does nothing or intervenes less, and situations in which tensions and tradeoffs between ethics and practice occur. The latter situation leads to increasing 'integration' of occurring tensions and tradeoffs in the land ethic. Although practical engagement with the land is not the only source for inspiring and refining ethics, it is crucial for the development and refinement of the land ethics that underpin transformational initiatives. Clear learning moments certainly occur, but in general, development of land ethics is a slow/gradual process.

The third and last sub-question is ***"how do the land ethics in the transformational initiatives contribute to sustainable development beyond the initiatives?"*** In all transformational initiatives, the desire was present to make a contribution to sustainable development beyond the initiative. This contribution was made possible because the land ethics were (1) not entirely new but innovative; (2) practice-tailored yet applicable to a range of contexts; and (3) tangible/visible in terms of ethically informed practices and material outcomes. Due to these features, the transformational initiatives are able to show that certain ethically informed practices – that are generally viewed as unattainable or 'too idealistic' – are actually feasible. Simultaneously, they disprove existing prejudice regarding ethically informed practices. As such, the transformational initiatives are sites of ethical innovation that challenge the moral order. Especially the lack of consideration of the needs and agency of the nonhuman parts of the land, the tendency to only take into account narrow aspects of environmental sustainability, and the tendency to prioritize maximization of profits or production (with large associated costs for the land) were challenged. The biocultural creatives of the four initiatives show a preference for expressing their ethics in a way that invites people to relate with their land ethics. Strategies like letting visitors experience what the initiative entails, explaining their land ethics in a non-prescriptive way, or teaching ethically informed practices prevents coming across as preachy. Whereas all initiatives had a local to regional focus with the expression of their land ethics, some had a strong national and, to a lesser extent, global focus as well.

This study has provided in-depth understanding of the land ethics that have developed and are developing in four Dutch transformational initiatives. By addressing the three sub-questions, this thesis shows how land ethics underpin transformational initiatives for sustainability: land ethics are an important – yet often invisible – driving force behind the development of innovative, practical relations with the land. They provide a constantly developing guidance that allows for the reimagination of possible ways of relating with the land. The dedication of biocultural creatives to this development enables them to contribute to sustainable development within and beyond transformational initiatives on a deep, yet practical, level.

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Annex I: General interview guide for the first interview

This appendix contains a translated version of the general interview guide for the first interview. For each interview, this general guide has been tailored to fit the initiative and the participant. Table 6 shows how the general interview questions are connected to the guiding questions that have been developed in the theoretical framework (paragraph 2.6).

Tabel 6 Connection between the interview questions and the guiding questions that have been formulated in paragraph 2.6. For each guiding question, the numbers of the corresponding interview questions are depicted. Some interview questions correspond to multiple guiding questions. The interview questions that are not connected to a specific guiding question are shown at the bottom row of the table.

Guiding question	**Corresponding interview questions**
How can the land ethics that underpin the transformational initiatives be characterized?	
j. What values, ideas and principles are part of the evaluative framework for land ethics?	2, 8, 9, 10, 14
k. Which parts of the ethical framework are more abstract and which ones are more specific?	8, 9, 10, 14
l. Which parts of the ethical framework are more fixed and which ones are rearticulated in the fuzzy everyday?	11, 12, 16
What are the dynamics between land ethics and practical relations between people and the land?	
m. How and to what extent do land ethics inform practical engagement with the land?	13, 14
n. What tensions and tradeoffs exist between ethical principles and practices in the initiatives?	13, 14, 15, 16
o. How does practical engagement finetune ethics or inspire new ethical ideas?	16
How do the land ethics in the transformational initiatives contribute to sustainable development beyond the initiatives?	
p. How do biocultural creatives think that their land ethics (could) help in becoming more sustainable?	2, 17, 18, 21
q. How do the biocultural creatives in the initiative express their land ethics to people outside of the initiative?	19, 20
r. On what scale(s) are the land ethics expressed?	19, 20
No corresponding guiding question	1, 3, 4, 5, 6, 7, 22

Introduction

- **Introducing myself**: My name is Rianne Kat. I am a student at Wageningen University, where I study Forest and Nature Conservation (specialization Policy & Society). I am currently working on my Master's thesis.
- **Introducing the research**: My thesis focuses on four sustainable initiatives in the Netherlands that try to change human-nature relationships. They are directly and physically involved in the surrounding nature.
- <Initiative x> is one of the studied initiatives. For each initiative, I interview two people that are directly involved in the initiative.
- With my thesis, I want to find out how people in sustainable initiatives relate to the land and with everything what lives on, in and around it. 'The land' is in this thesis the entirety of plants, animals, soil, water, and humans.
- I am especially interested in what you and others involved find a right/good way to relate to the land and why. A good way to relate to the land is an ethical question (because ethics are about what is right and why). It might sound rather abstract, but it can also be very practical.

- **Objective of the interview**: This interview is meant to create an overview of three things: (1) What you think of as a good way to relate to the land during activities within <initiative x>; (2) What this means in practice for what are (not) you're doing within the initiative; (3) In what way the ideas within the initiative contribute to sustainable development beyond the initiative.
- **Procedure**: The questions that I will ask might not be easy, because it isn't something people are consciously thinking about every day. I have tried to formulate the questions as simple as possible, but I want to emphasize that the interview can't go 'wrong'. I see it as a conversation between you and me, wherein we are exploring the topic. Therefore, you may also bring up things that you think of as relevant.
- I expect this interview to take about an hour.
- After the interview, I will make a summary of our conversation with the most important insights and send it to you. At the end of this interview, I hope to make an appointment for a second interview. During the second interview, you can let me know whether I described your view accurately, make additions and correct things that I misinterpreted. I might have some additional questions as well to ask more information or to clarify certain things.
- **Processing**: After this interview, I will analyze the interview. Your name and the name of the initiative will be anonymized.
- To analyze this interview, I would like to record it. Nobody else will hear it and when I'm done with my thesis, I delete the recordings. However, a transcript of the interview will be documented. A transcript is the written version of the interview that will be used for the analysis. It will be saved, because it is part of the raw data of this research, but it won't be published.
- I will use the information that I get from the interview and the second meeting for my thesis and maybe for another article in for example a specialist journal. Thesis reports are published at the website of Wageningen University and are open access.
- **Informed consent**: Do you still have any questions before we start with the interview? Now I've explained this all, it is important to ask: are you still in favor of the interview's working method and its processing? [When the answer is 'yes', I start the recording and proceed to the interview questions.]

The initiative

We start this interview with some general questions about the initiative and your involvement.

1. When was <initiative x> founded?
2. What does <initiative x> want to contribute to?
3. How did you get involved with <initiative x>?
4. What is appealing about <initiative x>?
5. What is your role within the initiative?
6. On what sites do the activities of <initiative x> take place?
   - What does it look like?
   - What is the size?
   - What can you find over there? (For example: an orchard)

Good ways to relate to the land

Let's talk about what you think are good ways to relate to land. We'll do this by talking about the things you do in practice.

7. What kind of things are you practicing on the land? [Make a list of activities/practices.] Ask the following questions per activity (8-10):

8. How do you practice <activity>?
9. Why are you practicing <activity> in that way? Probes:
    - What are the leading ideas, principles or values?
10. What do you consider right or wrong about it? Probes:
    - Why?
    - What makes <the practice/doing something?> during <the activity> right or wrong?
    - How do you judge what is right or wrong during <activity>?
    - What would be the most ideal/right way to do <activity> according to you? Why?
11. Which of these ideas are fixed?
12. Which of these ideas need to be rearticulated to make them work for daily practice?

Interaction between ethical ideas and practices of the initiative

We have just tried to sketch the outlines of your ideas on what are good ways to interact as a human with the land (and her inhabitants). Now, we're going to dig deeper in what this means in practice.

13. First of all, it's important to ask: Do you always manage to bring these ideas in practice? When do you (not)?
14. Do you have ideas on what are good ways to relate/use to the land that don't inform practice? Probes:
    - Could you name an example?
    - Do people within the initiative think differently about this?
    - Are there any practical limitations that made you drop certain principles? Which one?
15. Are there certain activities that you would prefer not to do, because the practice is less beneficial for the land?
16. Have your ideas on how to relate to the land changed since your involvement in <initiative x>? Probes:
    - How did that happen? For example:
        - Because of other people involved in <initiative x>?
        - Because of new insights or experiences through practice within <initiative x> (f)
        - Because of practical objections/difficulties in <initiative x>? (e)
    - What kind of insights have you learned by working closely with and on the land? (f)
        - Do you have examples of situations/instances in which you got new or different ideas on what are good or bad ways to relate to the land?
    - Did you become more persistent or nuanced about certain views/opinions? (c)

Interaction between ethical ideas and society

Let's move on to our final subject/topic. This is about how the ideas from within the initiative contribute to sustainable development, even outside the initiative.

17. In what way does <initiative x> contribute to sustainability?
18. We have been talking about different ways of good ways to relate to the land. In what way are these ideas, principles and values valuable for other situations or other places? Probes:
    - Where?
    - How could that be implemented?
19. Does the initiative communicate its ideas about relating to the land to people outside the initiative?

○ To whom? Only locally, or (inter)nationally as well? ○ Which ideas are more articulated? ○ In what way? ○ What kind of reactions do you get from others?
20. Are there other organizations with whom you share visions or you work together? ○ How does this partnership take shape? (F.e. sharing ideas, partnership, umbrella organization, etc.)
21. Do you think the ideas underpinning <initiative x> have an influence on how people think of good ways to relate to the land?
22. And then, the final question: How do you see the future of this initiative?

Conclusion

- *Most of my questions have been addressed by now, so I think we're coming to an end with the interview.*
- *I stop the recording.*
- *Do you still have any questions or do you want to add something?*
- *I want to thank you for the interview!*
- *[If necessary: plan the second meeting.]*

Annex II: Example of preliminary results of the first interview

This annex contains preliminary results, that were written based on the first interview with Elea. Elea is one of the participants from the ecological neighborhood initiative. I sent similar documents with preliminary results to each participant. They were asked to read the document before the second interview.

Preliminary results of the interview on land ethics

Reading guide

- This confidential document contains the results of the first analysis of the interview, sorted according to my research questions.
- This is an initial analysis based on our conversation. So, it is not the results section of my thesis, but things that may end up in the results section.
- Quotes from the interview are *Italic* and indicated with quotation marks (" "). Words in square brackets [] are added for clarification and dots [...] mean that a few words have been omitted from the quote.

What to do?

- The most important thing is to **see if everything is correct, in your opinion.** If I've written down things you don't or only partially agree with, I'd love to hear that. It is quite possible that I have misinterpreted things. **Additions** are certainly welcome as well.
- In addition, there are blue-marked questions here and there. These are questions that I would like to talk about during our second interview. In principle, you do not have to do anything with that, but of course you can always think about them.

Definitions

- My thesis is about the role of land ethics in **'sustainable initiatives'.** The association is one of the initiatives I study. I refer to this as 'ecological neighborhood' or 'the association'.
- By **'the land'** I mean the whole of all plants, animals, soil, and water, but also people. I often say something like 'the land and everything that lives there'. I mean the same thing by this.
- By **'land ethics'** I mean what you personally see as a right/good way to deal with the land in the initiative and why.

Characterization of the land ethic that emerges from this initiative

a. What ethical ideas, principles and values are part of the land ethic?

b. Which are the more abstract parts of land ethics, and which are the more specific ones?

- The vision of the association, which Elea also supports, is ***"building, working, and living in harmony with nature, in connection with each other*** and to inspire the world around *us."*
- I took this vision as a starting point for the land ethic of the initiative because Elea indicated that (almost) every one of the associations supports this vision. I have removed the last part ('for the inspiration of the world around us') because this is discussed in the third chapter and has nothing to do with relating with the land itself.
- Furthermore, I have not characterized the land ethic for the entire neighborhood, but specifically for how Elea sees good use of the land in the ecological neighborhood. A schematic overview can be seen in figure 7. The text in this paragraph is an explanation of the figure.

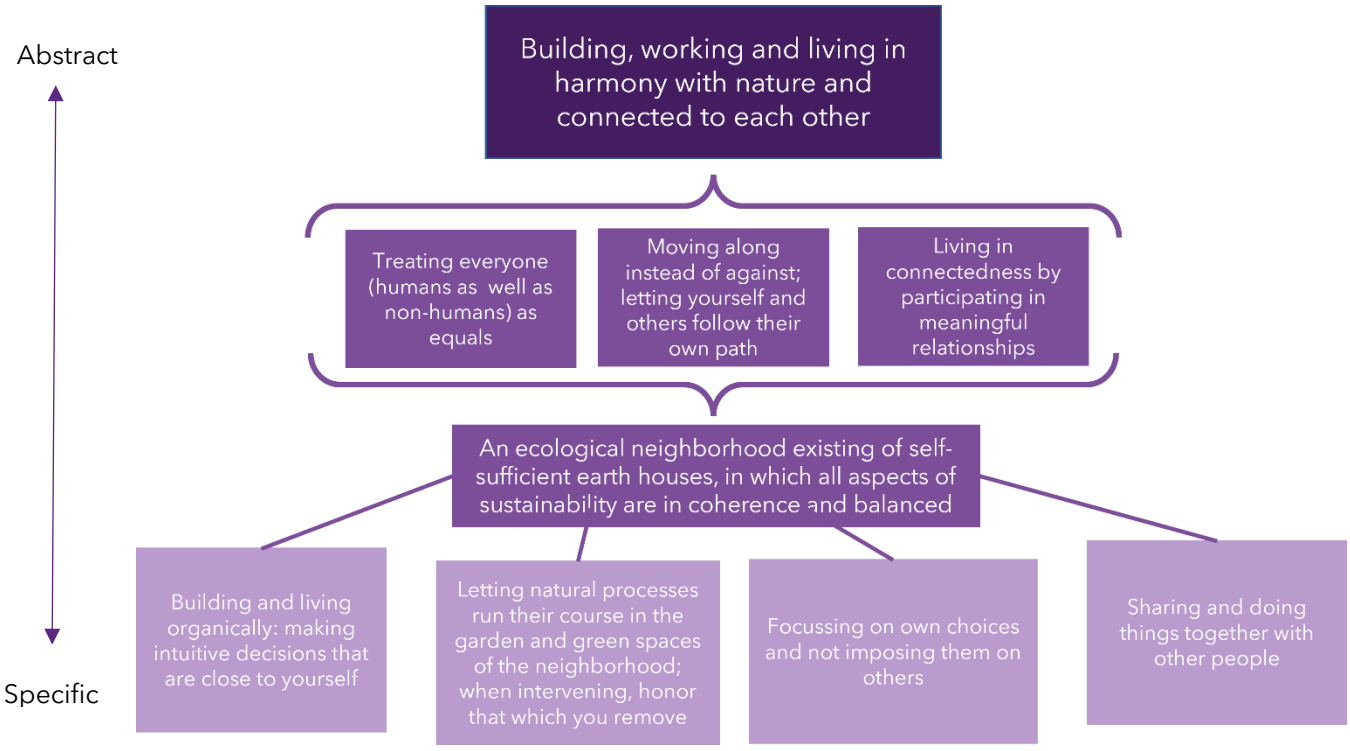

Figure 7 Schematic overview of Elea's land ethics. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple).

- Elea's land ethic is characterized by three main principles:

1. **Treating everyone as equal**: people are not worth more or less than the other life in the world: "*everything is connected so who am I as a human being to take over the power?* "
2. **Moving along instead of against:** people often want everything or think they know better, but Elea thinks it is better to see what something brings and to move along with it (whether that is a plant that grows somewhere or the association that wants to make a decision).
3. **Living in connectedness** means participating in relationships in a meaningful way: "Connection is between *people, or between man and animal, or between man and nature, between man and how they live in their own home. That could be anything. In essence, that is one of the greatest desires that many people have.*"

- These ethical principles for relating well to the land and everything that lives there, come together in the ecological neighborhood. When living in the neighborhood, four things are especially important to Elea: 1) letting natural processes run their course, 2) focusing on your own choices and not imposing them on others, 3) sharing things and doing things together with others, and 4) building and living organically.
- **Letting natural processes run their course**: Elea wants life in her garden to basically be what it is, without doing anything about it. That does not mean that she is not allowed to do anything in her garden: she uses plants, for example, to cook or make juice and if a plant is really in the way, it may be removed. The condition "*if you then remove something, do so for a reason: because you ate it, because you put it in a vase or because you use it as mulch. [...] Then you honor all there is.* "
- **Focusing on one's own choices and not imposing them on others**: Elea doesn't want to impose her ideas on others because it's best for everyone if people make their own choices. Her ideas are not necessarily better than anyone else's.
- **Sharing things and doing things together with others**: because then everything is everyone's, "*so that you all share the value and the respect. And then there is also no 'but you did not do it right' or 'you can actually afford it'. So that there will be more equality.*"
- **Organic building and living**: as much as possible, back to simple, natural materials, such as wood, sand, earth and reeds. Question: we haven't talked about this that much, so is what I stated here correct? What kind of additions do you have? E.g., about construction methods, the use of energy, waste, water, etc.?

- Question: can you say something about where the residents share your land ethic? And on what points is there disagreement/difference? Or is that too difficult to estimate?

c. Which parts of the land ethic are more fixed, and which are constantly being reshaped in daily practice?

- The land ethic described above is more of a snapshot because it's something that evolves over time. For Elea, therefore, nothing is fixed. Only the principle that everyone is equal is something that is becoming increasingly clear to Elea and is quite fixed: *"Being steadfast may sound a bit rigid, but I feel more and more how it works, [...] [that] we live in perfection. Man thinks he is above it but is as much a part of everything as a tick or a mosquito.* " Elea also says about this "*but I think that is a universal law. It is basically so, only we as humans have allowed thoughts and science on it. We're programmed in such a way that we don't see that."*
- The principle of equality and letting go of the natural processes are fixed but can be shaped in practice in different ways. One time you leave something, then you pick (part of) a plant to eat it, then again you prune a piece of a plant to leave it somewhere else. These are all things that are consistent with Elea's land ethic, but what is the right thing to do at what time depends on the exact situation.
- Question: which parts of the land ethic described above are essential for your relationship with the land, and which less so?

Dynamics between land ethics and practice

d. How and to what extent is land ethics the basis for daily dealings with the land?

The land ethic described above forms the basis of how Elea builds/built and lives in the ecological neighborhood. Below I have listed several examples of how the four principles described above may or may not emerge in practice.

Focusing on your own choices:

- Within the initiative, the residents have very different ethical ideas. What binds them is that they want to live in harmony with nature, "*but everyone can have a different standard in that.*"
- Elea's own ethical ideas are becoming increasingly clear for herself: "*From that clarity I can make choices that are good for me and therefore those choices are good for nature, the environment and the others. But not to change that other person or that nature. So, I can also sit down, so to speak, pleading at the maintenance morning for the green spaces, [saying] 'we have to leave everything [all plants] for now'. If I do it for me and it works well for me then others can see 'hey, Elea's* garden *is going well'. Then you don't have to say, 'you're not doing well and I'm doing it right'.*" That causes strife and costs energy.
- She is also usually neutral in the joint decision-making processes, especially if the decision-making process threatens to stagnate: *"It is nicer for me and therefore also for the other person."*
- Question: do you sometimes see it as a tradeoff that you don't want to be more steadfast about your ideas towards others? For example, in the case of the thistles that you removed on the maintenance day for the green spaces, which you did not really have to do: if you let it happen then you have not imposed anything on anyone (is consistent with your land ethic), but then the thistles are removed without good reason. Or is it a good reason to take them away if that means you don't have to "impose" your ideas on others?

Connection with others: The connection with other residents is something that, for Elea, could have come out even more strongly in practice: *"we live together in a neighborhood that we have built together. But the connection here is much less than in some other communities."*

Letting natural processes run their course

- In practice, Elea is increasingly succeeding in letting natural processes run their course based on the idea of equality. But she says: *"that's also an investigation, though. In the sense of - not that I look at it like 'is it true' or 'is it not true' - but rather, how do I relate to that and to what extent do I get out of my comfort zone or not."*
- She no longer removes 'weeds' because that was mainly out of habit. But other things are tricky. In it, she always takes small steps: *"I sometimes find it difficult to see that myself. For example, a tick. That has such a bad name because it can bring a disease. So, then you think, that must go. But what if it stays?"*
- Elea's relationship with the environment continues to evolve: "You *can first know about a plant: 'you don't have to remove it, it's good for the soil'. And then, 'oh, I can also make a drink with it'. And [you learn] what is then in that drink that is good for me as a person. [...] then that connection with that plant becomes stronger and stronger, as you have more affinity with it or do more with it. That benefits the plant and all the products that come after it, and yourself, because you take it to yourself. In my case because I drink it.*"

Organic building and living

- As far as Elea is concerned, this neighborhood could have been thought of even more back to basics: "*If I were to build now from how I think about everything now, I do not yet know what kind of house it would be.*" Now, for example, there is no cellar, so she needs a refrigerator that requires electricity. But she also emphasizes the many possibilities to do things sustainably, each with their own advantages and disadvantages. Everyone can make their own choices in which there is something in it.

- She herself likes to experiment with what she really needs to be able to live comfortably and to go a step further.

e. What tensions and tradeoffs occur between ethical principles and practices?

- During the construction of the houses, the starting point was to use as many natural materials as possible, where little CO2 is involved in production and transport. Sometimes concessions had to be made for financial reasons, or because a desired material turned out not to be strong enough. For example, Styrofoam has been used for... [question: what was Styrofoam used for?]. These kinds of trade-offs often led to difficult, slow decision-making processes.
- Some choices are also about the tradeoff between what is sustainable/good and what is comfortable to live in. The question is always: what you need to live comfortably enough? Elea likes to challenge herself and go further and further back to the basics.
- It is sometimes difficult to put the principle of equality into practice, because sometimes you want something. For example, Elea talks about the bramble bush in her garden, on which she has decided to grow in an arc and remove the rest: "I would like to leave it even *freer, but then - then the 'but', then my garden is one bramble. So, then the choice would be, I want a large area so that that bramble can go its own way."*

f. In what way does everyday dealings with the land inspire new ethical ideas?

- Elea is so quick to have no practical examples of how daily dealings with the land inspire new ethical principles: "*It's so gradual. It goes like this. I do have the feeling that I am taking more and more steps in that. I think that's also limitless, those steps.* "
- Question: Do you happen to have an example of how daily dealings with the land inspire new ethical principles or refine existing ones?

The contribution of land ethics to sustainable development outside the initiative

g. How does the land ethic within this initiative contribute to social sustainability? Or how could it contribute?

- The land ethics that underpin the initiative differs from person to person. But what binds them is that mission of sustainable living in harmony with nature. This has led to a neighborhood that has been built as sustainably as possible with natural materials and where there is an increasing biodiversity. This is a way of living more sustainably that could be applied in many more places.
- Elea says that there are a lot of people who think they also feel the need to be closer to nature, by living nature-inclusive with natural materials, eating from their gardens, doing more for biodiversity, etc.
- Where the ecological neighborhood mainly has an added value is that the neighborhood not only exists as a beautiful idea, but as reality: "*we [have] a kind of exemplary function [...], a bit like pioneers. Look, we already live like this, and a lot of people want to live like this. That they can come and see and feel which aspects of this kind of life and living suit them. Of course, everyone is different in that."*
- Question: Do you agree with what I have written above?

- According to Elea, people who come to the tours are mainly curious and can choose which aspects they take with them: "*If they would not want to imitate anything at all, but they are still there [joining a tour], then they find it very nice to see and be amazed. But in general, there are people [joining a tour] who think 'I would someday…', 'I would like to make a straw bale barn or a heat pump in my house'. Things like that. It's in all sorts of gradations."*

- Question: Do you think (or do you know) that people take your ideas and put them into practice? Only private individuals or also larger? Do you have any examples?

h. How do you express your land ethic to people outside the initiative?

- Propagating the way of life in the ecological neighbourhood and the ideas underpinning it is part of the mission of the association. However, Elea does not try to convince people outside (and inside) the initiative of her ethical ideas about what a good relationship with the land is: *"I think it is true in all aspects of life that if I live it and make the choices for me that are nice for me, that's all there is to it. You don't have to argue, for something or against something. I don't have to convince my neighbors not to use that electric lawnmower. I can only make those choices for myself."*
- However, she really likes to inspire people from outside the initiative, for example during guided tours: *"That is my personal thing, that I really like when I am enthusiastic about something, that I want to convey that. And I always hear from [...] 'how you live is inspiring'. I think that's nice to hear. But that shouldn't be necessary, because if I make those choices for me, then it's already good. I don't necessarily need someone else to stop eating pumpkins in the summer, or anything like that. But that is - I hope for people, then I tell a lot about it, then I hope that somewhere they can take some of that into their own daily lives."*
- During the tours, Elea likes to give her personal perspective to visitors, also when it comes to the more abstract parts of land ethic. Other residents may emphasize completely different ideas.
- The tours include people who have registered themselves. That ranges from private individuals to government agencies or companies. In addition to guided tours and visitors, the association is also considering giving lectures throughout the country. Question: Did I understand this correctly?
- Question: do you also want to reach people (now or in the future) who think very differently about good ways of living? Or do you think you already do?

i. On what scale do you express your land ethic? (Local, regional, national, global)

- The association expresses their ideas to everyone who presents themselves: "*we are not active in that [in 'attracting' people]. It's coming to us [...] And that's also a lot of Dutch people. But when we were building, people were also coming from all over the world because they just wanted to know what's that like, building with car tires and straw bales.*"
- The association is affiliated with the Global Ecovillage Network, an international network of ecovillages. Especially with the Dutch branch of this network, the association has contact and they do workshops. The exchange that then takes place is mainly practical because many Dutch ecovillages are even less developed than the ecological neighborhood is. So, there is not so much an exchange of ethical ideas. Question: Did I understand this correctly?
- Some residents are also members of Transition Towns, another global network on more sustainable living.

Annex III: Case analysis food forest

Introducing the case

- The food forest case is an initiative by a Dutch foundation that aims to support "the development and exploitation of new and existing food forests in the Netherlands, to provide for a sustainable fulfillment of needs, such as tasty, healthy and local food, vital nature, an attractive landscape, and much more."[10] I refer to this organization as 'the foundation'.
- Although the foundation manages and supports multiple food forest projects, the case study focused on one specific food forest project, to which I refer as 'the food forest'. The food forest is a pilot farm for food forestry in the Netherlands to show the agricultural sector that food forestry is an innovative form of agricultural production.

- The food forest is located in a rural area where the province wants to bring back wet nature. A governmental fund for green development asked the foundation to develop a food forest in the province, after they had become enthusiastic about the activities of the foundation. The project for the new food forest started in 2017, which was four years ago at the time of writing.
- One and a half year ago, hedges and a grid of pioneer species have been planted to kickstart the development of a forest ecosystem. One year after that, the edible species were planted, filling the gaps in the grid of the hedges and pioneer species. Next to the planted species, wild plants grow in the food forest naturally. This brings the estimated total amount of species per hectare up to 60 species.
- At the time of interviewing, the food forest looked like a rather assemblage of plants of one or two meters high. Together with people who work for the foundation, (local) volunteers carry out monitoring and managing tasks. All in all, this takes about one or two days of maintenance per hectare per year.

- The foundation does not have permanently employed personnel, but has contracts with self-employed entrepreneurs. My interviewees, Dylan and Ine, both work as self-employed entrepreneurs for the foundation and are part of the board of the foundation. ***Dylan*** is mainly concerned with the strategic tasks, such as writing project proposals, obtaining grants, and maintaining high-level relationships. He also concludes business agreements with the entrepreneurs with whom the foundation collaborates.
- Just like Dylan, ***Ine*** is a general board member of the foundation. Her main job is designing food forests, but she also contributes to a food forest handbook that the foundation is developing, for example, and does some web and communication work.
- Both Dylan and Ine are closely involved with the work of the foundation. Their work also includes direct involvement with the land, as they help with planting and managing food forests.

[10] This quote has been retrieved from the website of the food forest foundation. No reference to the website is included because this would violate the anonymity of the initiative, and therefore of the participants.

Characterizing the land ethics

a. What values, ideas and principles are part of the evaluative framework for land ethics?

b. Which parts of the ethical framework are more abstract and which ones are more specific?

- The ethical idea at the basis of the food forest land ethics is that humans take a ***constructive role towards the rest of nature***[11]. A constructive role means that people search for peaceful coexistence with nonhumans.
- This breaks away from the idea that nature is by definition better off without humans. People, as part of nature, have every right to find a niche in the ecosystem and to live accordingly (and possibly also earn money with it), as long as they take that constructive role.

- To be able to take on a constructive role, the following interrelated principles are leading:
  - ***Letting nature go as much as possible and moving with the natural development of the ecosystem***. When taking a constructive role, the first question one can ask is "what does the ecosystem want here?"(Dylan). The answer to that question would be what the ecosystem would do if you would not do anything. That insight can be used to find think of a way to move with the development of the natural system and "set up a constructive collaboration between you and all those other organisms that also want to eat and also want to live" (Dylan).
  - ***Stimulating diversity, robustness, resilience, dynamic balance, and biomass production***. Human management should stimulate the development of an ecosystem (instead of inhibiting it). For example by planting certain species and varieties and ensuring the presence of multiple habitats. This will support the development of a robust and resilient system that is in dynamic balance and that produces a lot of biomass.
  - ***Modesty in intervention***. Even though rich systems can be stimulated by certain management, they cannot (and do not have to be) controlled and manipulated to a large extent. It is an illusory idea that humans know better what other nature needs than that nature itself. Moreover, intervention causes a lot of unnecessary damage.
  - ***Taking the whole as starting point.*** People are part of nature and should work together with the rest of nature to benefit both in various ways. By taking the approach of coexistence of man and the rest of nature, the needs and agency of the whole system is considered when making decisions. This prevents negative side-effects on the robustness and resilience of the ecosystem.

- In a food forest, humans play a constructive role by ***combining agriculture and nature***. The goal of a food forest is to create abundance for both people and the rest of nature.
  - A food forest is designed, developed and managed in such a way that food production is stimulated, but it is meant ***to 'yield' more than only food***. It should also allow the rest of nature to live and eat and can provide other, less tangible benefits to humans, such as, an attractive landscape, recreation opportunities, (re)connection to food and the local environment, and education.
  - People that live in the vicinity of the food forest are ***strongly involved***, because solidarity is necessary for good management of the food forest, also on the longer term.

[11] Although Ine did not use the term 'constructive' herself and thought it sounded "a bit technical", she agreed to use the term because it describes her view accurately.

- ***Many different species and varieties are planted*** with the aim of creating a robust and diverse system. About 10-15 edible species are usually planted per hectare. Next to edible species, various types of non-edible 'system plants' and hedgerows are planted to stimulate the system by creating shade, protecting edible species from the wind, binding nitrogen, providing flowers for insects, etc.
- ***Wild animals and plants are invited*** by, amongst others, providing an unfenced, quiet place with little human disturbance and a diverse habitat. Wild animals and plants can profit from the habitat and food that the forest provides, and the food forest profits from the functions the wild animals and plants fulfil in the ecosystem.
- Relatively ***few management interventions*** are applied. In principle, there is no mowing, plowing, weeding, fertilizing, composting, irrigating and no pesticides are used. These activities cost a lot of effort and money, have negative side effects (such as disturbance of a fungus-dominated soil) and are mostly not necessary. There are some exceptions: to be able to access the edible species for monitoring and harvesting, brambles are removed once or twice a year and some paths are mown. Moreover, it is sometimes decided to irrigate young plantings. This kind of management is limited as much as possible, because 'pampering' hinders the development of a robust and resilient system.

Figure 8 shows a schematic overview of the evaluative framework of the food forest initiative.

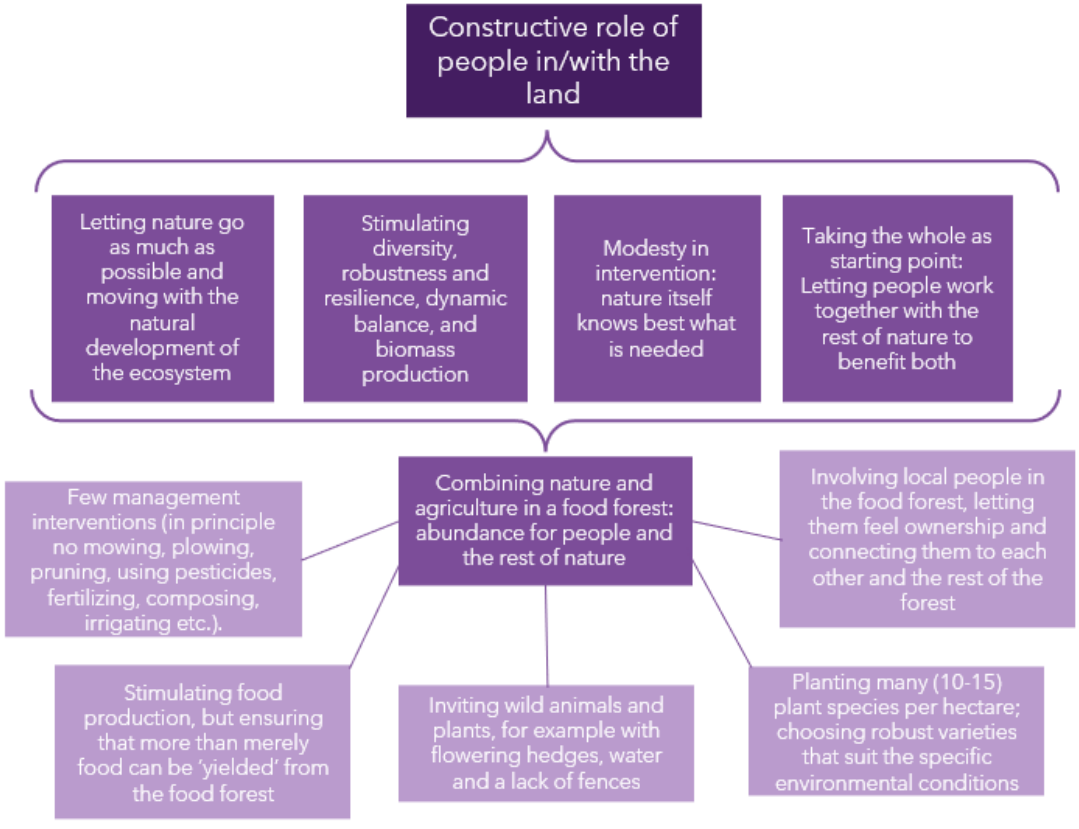

Figure 8 Schematic overview of the evaluative framework for land ethics of the food forest initiative. The evaluative framework contains the most important ethical ideas, principles and values. They are arranged from abstract (in darker shades of purple) to specific (in lighter shades of purple).

- According to Ine and Dylan, the board members of the initiative agree on land ethics to a large extent. Therefore, this is a valid representation of the land ethics that underpin the initiative.
- Nevertheless, there are some slight differences between board members, which also became apparent during the interviews. For example, Ine emphasized the importance of the connection between people and the land much more than Dylan, and Dylan emphasized modesty in intervention more than Ine.

c. Which parts of the ethical framework are more fixed and which ones are rearticulated in the fuzzy everyday?

- According to Dylan, "the basic principles [of the land ethics] […] are fairly stable.'' The same applies for Ine, but for her, the third principle (modesty in intervention) is more flexible when it comes to food forests. Dylan thinks it is best to use these management interventions only when there is no other option, whereas Ine does not necessarily think it is wrong to intervene a little more, as long as it is done at the right time of the year.
- When considering the more specific part of the evaluative framework, some parts are less fixed. Management interventions such as pesticides, fertilizer and plowing are a clear no-go for both Dylan and Ine, whilst other management measures, such as mowing paths, removing brambles and irrigation can be considered in some situations. Also, more specific choices on design, varieties and the number of species per hectare are strongly dependent on the specific location and context. Dylan: "when it comes to choices of species and varieties, there is a lot of variability. It always depends on location, context. We also don't start designing a food forest until we've visited the site."
- Nevertheless, food forests should always be designed to fulfill multiple functions like food production, biodiversity, beauty and education. The food forest that we focused on during the interview has food production as its main purpose. It is also possible, however, to place more emphasis on education and recreation: "We always start with that: what is the main goal that you want to fulfill with your food forest and where do you place which accents?"
- Because food forests are still in an experimental phase, Ine is not very firm about the specific working method of food forests: "there is never one way in which it is right. We are just figuring that out." Later she also says, "We may conclude in 10-15 years that it is not yielding enough [in terms of food production]. Not enough to intervene as little as we do now. So we might have to take a step back." Although Dylan is less worried about the non-intervention strategy than most others, he does realize that the land ethics as described here are experimental and that more intervention might be necessary. Therefore, the more specific part is still very much in development and can change in everyday situations. In the future, it might become more fixed, but one should "realize that the multifaceted and dynamic reality […] will always surprise you. And that one should not have the illusion that it is possible to capture everything on paper beforehand" (Dylan).

The dynamics between ethics and practice

d. How and to what extent do land ethics inform practical engagement with the land?

- The land ethic described above is the basis of what is (not) done in the food forest.
- This particular food forest is mainly intended for food production. It is therefore designed as quite 'rational', with plants in straight rows and less edible species per hectare, because this is easier for harvesting. However, no concessions have been made on the overall principle of stimulating diversity, robustness, resilience and a dynamic balance. These still apply as preconditions for a food forest, even if it's one with an emphasis on production.

- The design of the food forest is a good example of how the ethical idea of taking a constructive role can take shape in practice. Since the food forest has been planted on a wet site, the foundation selected species that are suitable for wetter conditions. At the same time, the foundation acknowledges that it would be favorable for food production if some parts were dryer. Therefore, soil ridges will be made to be able plant some edible species that need somewhat drier conditions. The soil that is needed to construct the ridges will be excavated from another part of the food forest to create a pond. The pond, in turn, is meant to attract wildlife, such as amphibians, insects and birds. This way of designing the food forest is informed by the land ethics underpinning the initiative. The construction of ridges shows that the ethical principle of taking a constructive role does *not* necessarily mean limiting human influence as much as possible: as long as the human influence is mostly positive for the diversity, resilience, and robustness of the system, it is fine to design, stimulate and intervene. In this example, the system benefits from the added diversity in microclimates and habitats and people benefit from the extra food production. If the food forest ethic was about limiting human influence, the construction of ridges would probably not be an ethically informed practice.
- The involvement of local people in the management and monitoring has just started. Currently, the involvement of people from the local area is under pressure, because some volunteers had different expectations (e.g. it takes longer or more management is needed than expected) or expect the board to respond more accurately when volunteers notice something in the field.

e. What tensions and tradeoffs exist between ethical principles and practices in the initiatives?

- Although the land ethic described in the previous paragraph is the basis of what is (not) done in the food forest, there are a few things to which concessions are sometimes made.
- First, there is a tradeoff between giving time for the ecosystem to ***develop a microclimate*** and the pressure from commissioners to deliver results quickly. According to Ine, the "ideal way to plant a food forest […] is to just take a few years and not get too hung up on it. So, slowly." However, the food forest has been given only 10 years from the municipality to develop without charge, but after this there will have to be revenues to pay for tenancy of the land.
- To accelerate the succession to forest, hedgerows and a grid of pioneers are planted. After one year, the edible species are planted within the grid.
- Speeding up the succession to forest by planting hedges and a grid of pioneers is fine, but it would be better to wait longer to let the hedgerows and pioneers develop well before planting the more vulnerable species. Now, there is a higher risk of harm to the vulnerable edible species, since the microclimate of hedgerows and pioneer species is still underdeveloped.
- This is not only harmful for the development of the forest, but also puts the credibility of the working method is at risk. Ine: "We propagate that we […] plant things in a lee environment, but we actually don't do that. If we don't keep ourselves to our own written rules, so to speak […] then what you explain gets too far removed from what you are doing."

- A second tension sometimes occurs when balancing ***modesty in intervention*** (and causing as little harm as possible) with stimulating food production. Ine: "Of course you want to cause as little damage as possible, but you want to but also that it succeeds, so a number of things you will have to take into account. […] [For example] we should not leave those brambles in the system, because then you can simply forget about half of your harvest."

- According to the current land ethics, it is not wrong to do minor interventions, such as removing brambles, irrigating young plantings, and mowing some main paths for accessibility. Interventions like irrigation can even strengthen people's connection to the food forest, because nature is tough and it gives satisfaction for people to add some care and charity by watering plants.
- In some cases, however it can be a sliding scale: "Of course we make concessions. And we don't know where it ends and begins. […] And a farmer would prefer to mow the paths between each row of plants. And that is again a borderline case, should you do that?" (Ine). Ine also sees the benefits of mowing more paths, because it might make food forests easier to understand and accept when the paths have been mowed and planted in rows. Finding a balance in this is fine: "That goes back to the same idea, that you [look for a balance] between what is good for all of us and what is practical, in order to get a good harvest from it without causing too much damage."

- In principle, the foundation believes that native and ***non-native species*** are both good options to plant in a food forest. In practice, however, not all non-native species are used because there is a risk of them becoming invasive outside of the food forest.
- An important consideration here is the critique from people outside of the foundation. Using invasive species might spark resistance (on top of the resistance that food forests already meet) and the foundation currently thinks that is not worth it.

- Lastly, the ***size*** of a food forest can be at odds with the land ethics. In practice, the foundation and/or the clients sometimes want large food forests. Sometimes, this is at the expense of proper care for the food forest. Ine mentions as an example that was not possible to protect the young trees against damage caused by game, because monitoring and intervention are more work.
- Another disadvantage is that it is a lot more difficult to connect people to the food forest due to the lack of overview of large projects. Smaller projects are a lot more manageable for the foundation as well as for the volunteers.

f. How does practical engagement finetune ethics or inspire new ethical ideas?

- Ine says she learns a lot from the food forest projects she is involved in: "you learn about the land, you learn about the landscape, you learn about the species that you plant yourself. You learn about the crazy peaks in the climates of what to do and what not to do with it." The examples she mentions are mainly about how to ensure the vitality of the planting material.
- She emphasizes that there is not one right way, but that they are just figuring out what works best in certain contexts, making practical engagement key.
- Dylan finds it hard to come up with specific examples of how practical engagement finetuned ethics or inspired new ethical ideas, for himself, but he describes an example of another board member (whom I call Eric for convenience). When Eric had planted his first food forest, he thought it was good to ensure that the young plantings were free of surrounding (herbaceous) plants. This is a common practice in forestry. In the first year, he had started to do that, but he had only come halfway because it was too much work. The next season, it turned out that the young plantings that did not get any treatment were doing better than the ones that were freed of surrounding plants. In this way, the land thought Eric that this particular intervention was unnecessary for good handling of the land.

Contribution to sustainable development beyond the initiative

g. How do biocultural creatives think that their land ethics (could) help in becoming more sustainable?

- The land ethics of food forests contribute to sustainable development because they develop a reimagined vision on agriculture. Ine emphasizes that it is only possible to improve the world if we imagine what a better world would look like. Also according to Dylan, "the question should never be 'is it feasible', but 'how do I make it feasible?'" Thus, practicalities are ultimately solvable, but imagination is needed to come up with a vision to move forward. The land ethic of food forests helps people to envision how the world can become a better and more sustainable place. The land ethic of food forests is told by the existing food forests. Even though there are no fully grown food forests in the Netherlands as this point, it still works. Furthermore, pictures, drawings, and videos are helpful to show people what it will look like in the future.
- According to Dylan, almost all arable areas in the Netherlands are suitable for food forestry, and food forest-like systems, for example, could also be created according to the same abstract principles (the specific elaboration would then be different). It is therefore also the ambition to considerably expand the acreage of food forests. The foundation does not necessarily think that a food forest is the only good way to combine agriculture and nature. It is not their intention to replace annual cropping completely and there are also other good forms of perennial cropping, such as freshwater marshes.

- According to Ine and Dylan are three ways in which the food forest land ethic mainly distinguishes itself from the currently dominant moral order.
- ***Holistic / integrated approach (reduces negative side-effects):*** The land ethic of food forests is an alternative to the widespread tendency of people "to think in terms of production maximization" (Ine). Because of that mindset, the norm is "that you basically destroy everything just to harvest what you have planted." Production maximization in particular has many negative side effects.
- In a food forest, agriculture and nature are combined in such a way that it is not at the expense of the rest of nature. This makes it an integral solution for many (environmental) problems. Instead of maximizing production, the benefits of the land are shared with others.
- Because the constructive role of humans in a landscape is central to land ethics, consideration is given to whether the system will become more or less robust, diverse and resilient to a particular intervention in all choices. In order to realize the more abstract principles of this land ethic, in practice a great deal is not done (mowing, pruning, etc.). This not only saves work, but also prevents negative effects on the environment that many other farming methods have. It is thus an integral solution to many environmental problems that are related to each other.
- Also more generally, food forestry is an integrated approach that has the ability to meet diverse needs, not only for food, but also for beauty, nature experience, landscape experience, medicine, relaxation, education, biodiversity. Trying to put that in a box is not possible. "It is not a compromise, but a win-win-win-win solution. That it's right on all sides."
- ***Peaceful coexistence instead of separation:*** The land ethic of food forests is an alternative to two extremes that are visible in practice, namely depleting systems by deliberately killing and making other life sick on the one hand, and trying to diminish/prevent any human influence on nature on the other hand. In such a rich and robust system, humans are allowed to have an explicit impact, for example by producing food or living there. What is transformative about this idea, is that human impact is not necessarily viewed as bad/unwanted influence on nature. Moreover, humans are not considered apart from nature.

- ***Proliferation of nature:*** According to Dylan, the most difficult, but also most important change for most people is letting nature do as much as possible itself. For good handling of the land it is necessary to want to control less, to want to intervene less. It is not widespread yet but that is slowly changing. For Dylan, it is about "realizing that the power of life can be our salvation. That is grossly underestimated. If you let ecosystems proliferate, it will bring about an enormous change in the biosphere." Food forests help to tell this story.

- Because food forests are still in their infancy, it is not yet entirely clear whether and where the less sustainable aspects of food forests lie. At the moment the less sustainable aspects are related to mistakes that are made and a lack of experience. Ine: "What people find a problem is that we spend money on planting and accept that some of it can die." Dylan thinks that the only major drawback is that food forest systems develop slowly, while there is no time to lose from a sustainability point of view. Nevertheless, he wants to continue with developing food forests, because "I wouldn't know anything else either, I mean, what would be the other option anyway?"

h. How do the biocultural creatives in the initiative express their land ethics to people outside of the initiative?

- It is an explicit goal of the foundation to disseminate the ideas behind food forests. Thus, the foundation goes further than merely practicing their land ethics.
- In the first years of the foundation's existence, the food forests ethics were voiced to everyone who wanted to hear it. This was necessary to be able to build a community of professionals and volunteers for the activities of the foundation.
- When communicating food forest land ethics, it is not uncommon to meet quite hostile reactions. Especially the idea of moving with the natural development of the ecosystem and modesty in intervention are met with resistance. According to Dylan, people think it is necessary to tinker with everything and control everything to be able to produce food.
- People's opinion often changes when they get shown around in an actual food forest. There is one slightly older food forest in the Netherlands. Showing people how a food forest grows, letting them experience and taste it, and telling why things are done in a certain way, turns out to be a successful combination to diminish skepticism. These modes of expressing ethics are normative, but they are not presented as obligation or prescription. Therefore, it is more an invitation to relate with the land ethics of the food forest.

- Nowadays, the foundation tries to expand the number of food forests. Therefore, the focus of the expression of food forest ethics has shifted towards entrepreneurs who own or lease land, to interest them in starting a food forest as well. In many cases, these are people from the agricultural sector.
- This shift in focus requires a different mode of expressing ethics, that is closer to preaching. Even though Dylan and Ine try to adapt their language to the daily language of the interested entrepreneur, it should be clear how food forest ethics and practices are different from conventional agricultural practices. Dylan does not hesitate to tell interested farmers that they are not as rational and efficient as they may think, because they constantly fight against natural processes and inhibit ecosystem proliferation: "What is often the case, is that you have to fight with – yes, you have to fight a battle with the […] images that farmers have of themselves. Namely [the image] that they are being efficient and that they are being very rational, with a robust business case and those kinds of things. Well, those are all fairytales! It is just not true at all."
- If entrepreneurs want to work together with the foundation to set up a food forest themselves, land ethics of food forests are to a large extent expressed as prescriptive by

the foundation. This is necessary for gatekeeping, because entrepreneurs sometimes want a food forest without sticking to some important ethical ideas that the foundation has about good food forestry (e.g. modesty in intervention). Ine turns out to be more willing to do concessions to make the food forest consistent with the wishes of the entrepreneur in question than Dylan.

- For Ine, the question for the coming years is with which strategy the foundation will achieve more: going along with the wishes of the entrepreneur (and therefore sometimes letting go of their own ethics) or being steadfast and running the risk that the entrepreneur drops out?

i. On what scale(s) are the land ethics expressed?

- The expression of land ethics mainly takes place on a national scale. The foundation supports the development of food forests all over the Netherlands. Each food forest is adapted to the specific circumstances and wishes, but the more abstract principles from the land ethics described above remain the same for every food forest that has been developed with support of the foundation. The foundation is also working on setting up communities of practice, for example a designer collective, to teach them how to design food forests in good ways. According to Ine, every specific aspect of the land ethic as described in figure 8 is important to teach the designers, because all are essential for a well-designed food forest.
- Making a local impact with the food forest is also important. For the particular food forest that was the focus in this case study, local volunteers are involved in the management and monitoring of the food forest. Especially Ine emphasizes that the embeddedness of a food forest in the region is very important, because it is a way to connect people to each other and to the land.
- Land ethics are also expressed on an international scale, albeit to a lesser extent. because there is more than enough work to do within the Netherlands. A board member recently of the foundation gave a presentation at an international conference on forest gardens and food forests. According to Dylan, ethics are propagated there with enthusiasm. In addition, the foundation is involved in internationally oriented research into food forestry.

Annex IV: Case analysis foraging business

Introducing the case

- The foraging case is a business run by Sara and Pieter, for which they organize various courses and activities related to foraging (i.e. picking wild, edible plants), bush crafting and canoeing. I refer to their business as 'the business'. In the case study, the focus is mainly on the activities related to foraging, because those activities involve most of the physical engagement with a land community.
- For ***Sara*** and ***Pieter***, foraging is part of their sustainable lifestyle. They use the harvest as addition to their diet. Most of their foraging takes place in nature areas in the region where they live. Next to foraging in nature areas, they manage their garden in such a way that they can harvest (wild) plants from their garden too. There are also many other places where edible plants grow, but due to pollution it is not always safe for consumption.
- In their courses and activities related to foraging, Sara and Pieter use their expertise to teach their students how to recognize plants, where to find them, and how to harvest, conserve and cook them. By doing so, they hope to inspire others to change their lifestyle too. Within their business, Sara coordinates the foraging courses, while Pieter focuses his work more on bush crafting and canoeing excursions. Nevertheless, Pieter helps Sara with the courses and smaller foraging-related projects and activities (like demos and workshops). For example, the second interview took place at an open air museum about prehistory where Pieter and Sara taught visitors about eating wild plants.

Characterizing the land ethics

a. What valued, ideas and principles are part of the evaluative framework of land ethics?

b. Which parts of the ethical framework are more abstract and which ones are more specific?

- As the ethical values, ideas and principles expressed by Pieter and Sara were similar, it was not challenging to sketch one evaluative framework that would represent the land ethics of their business.
- The core value of the land ethics of Pieter and Sara is the connection between people and the rest of nature. Such a close connection coincides with the awareness of humanities' strong dependence on nature and responsibility for nature.
- Living in connection with the rest of nature is characterized by three interrelated principles:
- (1) The first principle is to follow natural processes instead of battling against them. For example, wild plants often grow in a garden spontaneously. They are often considered weed and get pruned, while they do no harm and are actually edible.
- (2) The second principle is minimizing the disturbance of nature. Sara stresses that "It's not about not doing anything, […] But just continuously looking at […] how do I disturb the balance as little as possible?" because "The more you actually learn about all those connections and the balance, […] the more you realize that we are constantly disrupting [natural processes], while nature tries to clean or heal." For Pieter, this principle is especially important because he considers humans as short-lived guests in the world.
- (3) The third principle, taking care of the earth, means that people make their choices less selfish and egocentric, but more holistic from the realization that people are part of the earth. Then, people take better care of themselves and the rest of nature. People should ask themselves with every decision: 'I do something, that has a consequence, do I want that? Should I want that?' Those questions help to think about the best way to do something.

- Restoring a direct connection to food is an important way for Sara and Pieter to connect to nature. They do this by foraging for, wild, edible plants. Pieter: "You eat from nature,

so you can hardly get any more connection than that. You become a part of it, you feed on it." Wild plants can be foraged either directly from nature areas or from your own garden.

- When foraging for wild plants from nature areas, there are several principles to ensure respectful foraging:
  - Preventing needless disturbance of nature (e.g. nests and wild animals) by staying on the trails, avoiding noisiness and the 'leave no trace' principle. The latter principle is used when Pieter makes a fire to cook something with the yield: he cuts a piece of sod, which he can put back in place when the fire is out. In this way, the vegetation recovers very quickly.
  - Picking plants only when they are common and that grow abundantly. Then, enough will be left after one is done picking.
  - Pulling out only the part of the plant that can be used, leaving the rest to grow further (if possible).
  - Picking only the amount of leaves, flowers, roots etc. that is needed. This is usually no more than a bowl. There are also situations where there is such abundance (e.g. a cherry tree in bloom) that there is no need to worry about taking too much.
- The other way of foraging for wild, edible plants, is by taking care of your garden as a 'harvest paradise'. In a garden, the last two principles of foraging from nature (i.e. pulling out only the part of the plant that can be used and picking only what one needs) still apply. Other principles are:
  - Letting wild plants grow next to cultivated ones, instead of labelling them weeds and prune them. If some wild, edible plants do not come spontaneously, they can be dug out somewhere else and planted in the garden. When the desired plant is rare in nature, they can be sown.
  - These seeds can often be bought from organic breeders.
  - Planting no (or less) heavily cultivars that add little to the ecology of the garden
  - Limiting intervention in the garden, but not eliminating it. To prevent the dominance of fast-growing species at the expense of the slower ones, mowing and pruning is possible. It is important to mow only after the growing season, because then plants have produced their seeds. When pruning, take a harvest basket so that the edible species will not go to waste. The non-edible ones can go on the compost heap, so that as much as possible stays in the cycle of the garden.

In figure 9, a schematic overview of the evaluative framework for land ethics of the foraging initiative can be found.

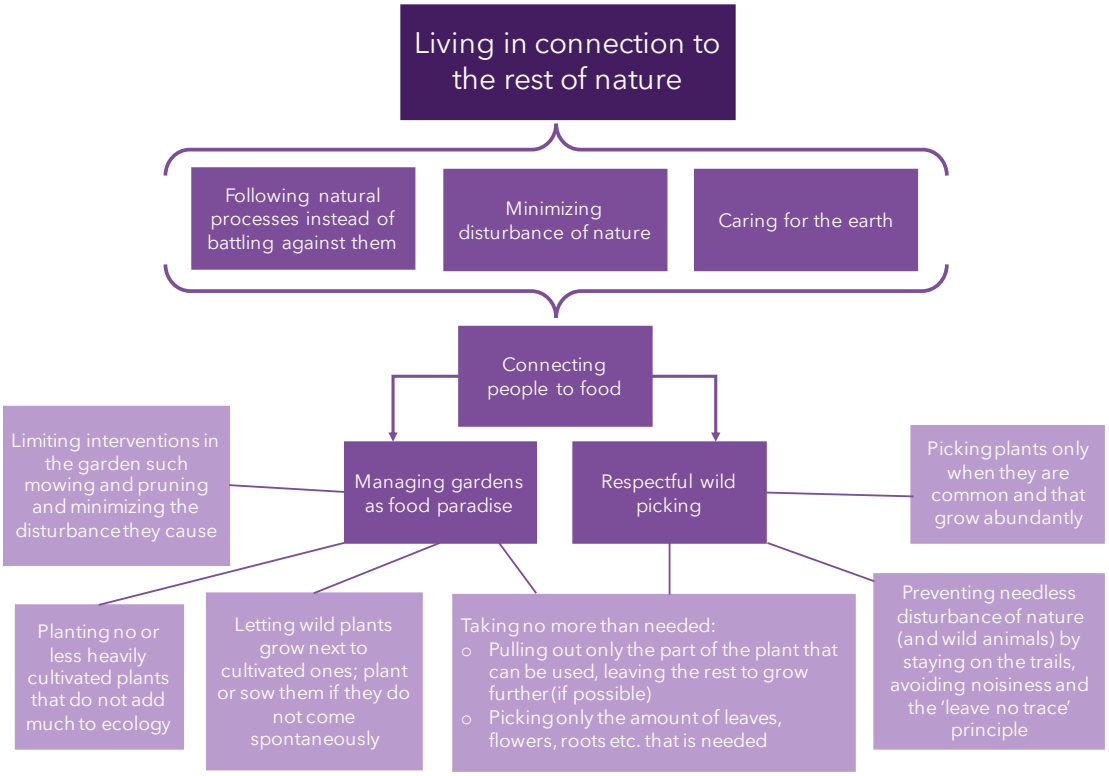

Figure 9 Schematic overview of the evaluative framework for land ethics that underpin the foraging initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple).

c. Which parts of the ethical framework are more fixed and which ones are rearticulated in the fuzzy everyday?

- The land ethic is mostly fixed for Sara: "The basic values, some things are very fixed for me. Picking protected plants is just something you don't do. Disturbing nature is something you just don't do. Disrespectful foraging is just something you don't do."
- However, she also realizes more and more that her ideas can also change. For example, she used to think it was important that plants were indigenous. Now she sees it differently: "I am realizing more and more that those invasive exotic species also have their function. […] Only I may not be able to understand this from my point of view or my limited human understanding. I'm starting to realize more and more, I think nature itself is just perfect. I just don't see parts of that perfection."

- The land ethic is also quite fixed for Pieter. He has also become more steadfast over time, but realizes that his truth is not shared by everyone.
- The principle of 'doing as little damage as possible' is fixed for Pieter as well, but it is something that is constantly being rearticulated in daily practice, because as a human being you cannot live completely without influence (and damage). Sometimes it is justified to intervene or to take something away, but it depends on the situation when that is justified and when it is not. You constantly ask yourself: 'I do something, that has a consequence, do I want that?, is that possible?'

The dynamics between ethics and practice

d. How and to what extent do land ethics inform practical engagement with the land?

- The land ethic described in the previous paragraph forms the basis of how Sara and Pieter deal with their garden and the natural areas where they pick wild plants.
- Thus, Pieter and Sara manage well to let their ethical ideas, values and principles inform daily practice. The principle of intervening/damaging as little as possible is feasible within their activities. Especially for foraging in nature areas, the impact (and thus damage) is small. For private gardens, more intervention is acceptable for them compared to natura areas.

e. What tensions and tradeoffs exist between ethical principles and practices in the initiatives?

- There are few tensions/tradeoffs for Sara and Pieter between ethical principles and practices in foraging, because they cause almost no damage or interfere with natural processes.
- When maintaining the garden, tensions can occur between the ideal of intervening and manipulating as little as possible, and the practice of managing a garden. Pieter says about this: "I think you should intervene as little as possible anyway. Well, we do that [intervening] too. When you start gardening, you are also intervening. […] We were just talking about food forests: then you also intervene […]. I just killed a hogweed… So yes, I find that difficult sometimes, but I do think that we [as humanity] intervene too much."
- Sara and Pieter both understand that in practice it is not possible not to intervene at all. Pieter: "If you don't want to disturb anything, you should stay at home." With their land ethic, they are looking for a better balance between manipulating/intervening and following natural processes. In practice, for example, Sara intervenes in the garden, but when she does, she ensures that nothing is wasted and that no permanent damage is caused. In this way, the tension between the ethical ideal and practice is navigated on a daily basis and minimized.

f. How does practical engagement finetune ethics or inspire new ethical ideas?

- Sara generally sees her ethical ideas confirmed in everyday life. Sometimes she also learns something new from the land. In her garden, for example, she noticed that her minimal mowing policy was causing the raspberry to become very dominant. The more herbaceous plants, became overgrown. As a result, she realizes that a little more intervention may be necessary to maintain the high (and often edible) biodiversity in the garden: "After all, we all have to eat as well. And that's what I love about the food forests and permaculture. [In those systems] you're just trying a lot more of to find a balance within our demand [for food]."
- Pieter doesn't have specific examples of how day-to-day handling of the land inspires new ethical ideas or refines existing ones, but does say, "My current vision has been shaped by the fact that I started doing this work and spend so much time in nature. Of course you read something about the decline of insects. But when you're outside you just see that. You just see it. And that makes you think 'this can't go on like this' and 'how should it be otherwise'?"
- To conclude, this land ethic has developed over the years, but is quite stable now. Learning things from practice is still possible, but this does not happen on a daily basis. Thus, the land ethic of Sara and Pieter mostly informs practice instead of vice versa.

Contribution to sustainable development beyond the initiative

g. How do biocultural creatives think that their land ethics (could) help in becoming more sustainable?

- Sustainability is very important to Sara and Pieter. Their land ethic can contribute to sustainable development because it provides an alternative to the widespread tendency of people to fight against natural processes, to intervene a lot, and thereby destroy a lot of life.
- With their land ethic, it is not the idea to diminish human influence, but currently "the balance is […] completely lost" for Pieter and Sara. With their land ethic, they try to find a new balance. At times, this turns out to be difficult.
- Pieter also indicates that he does not always know how to do things better, because returning to how people lived thousands of years ago is not their intention. However, he does think it is necessary for people to think more about the adverse (ecological) consequences of their actions and to make different choices based on that. For example, if you never take more than you need and always think about how much damage you're doing to plants and animals, he says, "If you use those principles, if we all did that together, the world would be a better place."
- With their land ethic, Pieter and Sara have a garden full of life and nature does not suffer from the foraging activities because of their principles for respectful foraging. This way of eating is local, healthier and you don't have to fight against nature the way conventional agriculture does.
- Peter and Sara do note that they use wild plants as a supplement to their diet and not as replacement for purchased food. That is why Sara and Pieter envision a sustainable future in which innovative agricultural systems such as food forests can be combined with foraging.

- Sara and Pieter hope that when people are closer to their food and therefore have more connection with nature, they will also make their lives more sustainable and take care of their environment. According to Pieter, this is difficult because people prefer not to make sacrifices.
- Sara also realizes that this does not always work and says about this: "everyone continues to consume a lot of meat and everything. And then they add a leaf of nettle to it, but it does not contribute much - So I sometimes find that part difficult." She also says: "Pieter and I are, of course, a bit more extreme, aren't we? […] For Pieter and me it is also much more of a lifestyle." Some people see what Sara and Pieter do and say and think, "oh yes, yes, that's very nice what you are doing". But in the meantime, one goes back to one's own house, to one's own groceries, you know, [then] you're back in your own bubble."
- She has learned over the years that she cannot change the world and says, "what you can do is change your own world around you. And if you make your own environment as beautiful as possible, you can be an example for others." Pieter is also happy with the way in which they can contribute to sustainability: "If I were to really fight agricultural policy or whatever, I would of course never win here in the Netherlands. That will not happen. And then you get all sour and angry and you lie awake at night. That won't help anyone. Or it would yield too little."
- Pieter and Sara find great satisfaction in the students who make a change and change things in their lifestyle, for example growing the grass in their garden and no longer treating the wild plants as weeds, but as food.

h. How do the biocultural creatives in the initiative express their land ethics to people outside of the initiative?

- Sara and Pieter find it important to propagate their land ethic and generally do so in their workshops and courses, especially in their annual course on wild edible plants.
- In the courses, Pieter and Sara are always firm about the principles of respectful foraging, but for the rest it depends on the group of people in what way and to what extent they express their land ethic. Sara: "With some [groups] we go much deeper and then I emphasize 'make your garden a diverse garden' and in other groups it is all still very new. And there it is already quite a step for people to put a dandelion flower in their mouth. […] Each person has a different background, a different knowledge."
- When Sara and Pieter try to convey their ethical ideas, they never do so by presenting them as prescriptive. Sara: "[I don't] really say 'you have to do this and you have to do this'. Everyone makes their own choices and as I said earlier: some take huge steps and others baby steps. That's all fine. Everyone has their own background, too."
- Their way of expressing ethical ideas is by 'inviting' people to see things as they see them, by teaching people about edible wild plants, about food, how to pick them, how to cook with them. The courses also focus very much on practice: Sara and Pieter take people into nature to experience for themselves what a wealth is found in nature.
- When Sara and Pieter dive deeper, they also try to convey the more abstract part of the land ethic, especially about the ecological consequences of their choices: "that people are aware of 'I do something, that has a consequence, do I want that? Is that possible?'. "With that awareness, people can push their wishes and boundaries, so that they change their considerations and hopefully their decisions as well.
- In conclusion, Sara and Pieter put effort in conveying their land ethic, but try to avoid preaching as much as possible.
- In some situations, Pieter can be a bit outspoken/explicit in stimulating people's thinking. For example, if, during an excursion, people mainly wonder whether otters and beavers do any damage, he likes to emphasize how much damage people cause and how much space people occupy for their activities. Then he clearly shows that he thinks that people should think more holistically. Such ways of expressing ethics is more explicitly normative and tends more towards preaching ethics. However, Pieter will not proceed in an attempt to convince others of his ethical ideas after he has made his statement.

i. On what scale(s) are the land ethics expressed?

- Initially, the focus was mainly regional. Due to the corona measures, Sara and Pieter have also started with online courses. As a result, students now come from all over the country. Sara sees this as a good opportunity to reach students from other parts of the country.
- In the future, they might also focus more on German tourists, but for now, the focus of their initiative is on the regional or national level.

Annex V: Case analysis ecological neighborhood

Introducing the case

- This initiative is an association, consisting of people who have built an ecological neighborhood together. The people who are members of the association now live in the neighborhood.
- The vision of the association is "Building, working and living in harmony with nature and connected to each other and to inspire the world around us." The mission of the association is to develop "An ecological neighborhood existing of self-sufficient earth houses, in which all aspects of sustainability are in coherence and balanced"[12]. Although the members of the association have varying lifestyles, opinions and ethics, they share this mission and vision.

- During the construction phase, everyone helped to build the houses one day a week. Thus, members were not only responsible for the construction of their own house, but for the entire neighborhood. When a house was wind- and watertight, the people who were going to live there finished it themselves.
- A collective house was built for activities and meetings too. Next to the houses with their surrounding gardens, there are collective greenspaces, (vegetable) gardens and a helophyte filter on the terrain of the neighborhood.
- The interviews were focused on the neighborhood as land community, including topics such as sustainability in construction of houses, relations with other people in the neighborhood and relations with nonhuman others in the neighborhood.

- The interviewees, Douwe and Elea, are members of the association who live in the ecological neighborhood. ***Elea*** has become involved in the initiative in an early phase, when the association was looking for members. She has helped during the entire construction phase. Currently, she is active in the management of the green spaces.
- ***Douwe*** became involved in the initiative when construction had already begun and started to help more and more during the construction phase. Now he lives with his wife in one of the houses and he is active for the green spaces within and beyond the borders of the neighborhood.

Characterizing the land ethics

a. What values, ideas and principles are part of the evaluative framework for land ethics?

b. Which parts of the ethical framework are more abstract and which ones are more specific?

- The mission and vision of the association, as mentioned in the previous paragraph, provided the basis for the land ethics of this initiative. The vision describes a more abstract ethical idea on how to treat the land[13] and the mission describes a more specific ethical idea on how to treat the land. Elea and Douwe indicated that (almost) everyone in the association supports the mission and vision, which makes them a suitable way to describe the land ethics of the initiative.
- Aside from this vision and mission, the ethics of the members of the association vary. Therefore, it is not realistic to sketch one evaluative framework that represents the land ethics of the entire association to a reasonable extent. The land ethics of Douwe and

[12] This quote has been retrieved from the website of the association. No reference to the website is included because this would violate the anonymity of the initiative, and therefore of the participants.

[13] I have removed the last part of the vision ('for inspiration of the world around us') because this is discussed in the third chapter and does not have to do with dealing with the land itself

Elea, that are outlined below, serve as examples for how the land ethics of members of the association relate to building and living in the ecological neighborhood.

- Elea's land ethic is characterized by three interrelated principles:

16. ***Treating everyone as equal***: people are worth no more or less than the other life in the world. Therefore, Elea does not want to take power over others.
17. ***Moving with it instead of against***: people often want something, think they know better, and impose things, but Elea thinks it is better to be more accepting of how others are and how things go. Then, one can see what something brings and move with it instead of resisting the course of things.
18. ***Living in connectedness*** means participating in relationships in a meaningful way, for example by sharing experiences, knowledge, doing things together, or using edible parts of plants: "Connection is between people, or between humans and animals, or between humans and nature, between humans and how they live in their own homes. That could be anything."

- These ethical principles for good handling of the land come together in the ecological neighborhood. Four principles are especially important to Elea when living in the neighborhood:
- ***Letting natural processes run their course***: In her garden and in the green spaces of the neighborhood, Elea thinks life should be able to live freely. She still uses plants for cooking or to make juice and if a plant really gets in the way, it can be removed. The condition is that "If you take something away, do it for a reason: because you eat it, because you put it in a vase or because you use it as mulch. […] In that way, I honor that all there is."
- ***Focusing on your own choices and not imposing them on others*** because Elea thinks it is best for everyone if people make their own choices. Her ideas are not necessarily better than anyone else's. Therefore, she is usually neutral in the joint decision-making processes, especially if the decision-making process tends to stagnate. If she does not agree with something, she tends not to enter into a discussion, but tries to find another creative solution.
- ***Sharing things and doing things together with others***. When everything belongs to everyone, there is more respect (for others and for objects) and equality.
- ***Organic building and living***: For Elea, the best way to make a decision is to become aware of why she does things the way she does and deliberate whether it could be done differently. This allows her to do what feels right, instead of what others think is right or what she has learned in the past. Therefore, organic building and living does not mean that certain materials and techniques are good or not, but that the choices you make are close to yourself in that particular situation. For organic building and living, this usually means using simple, natural materials, such as wood, sand, earth and reed, but there are definitely exceptions.

In figure 10, a schematic overview of Elea's evaluative framework for land ethics can be found.

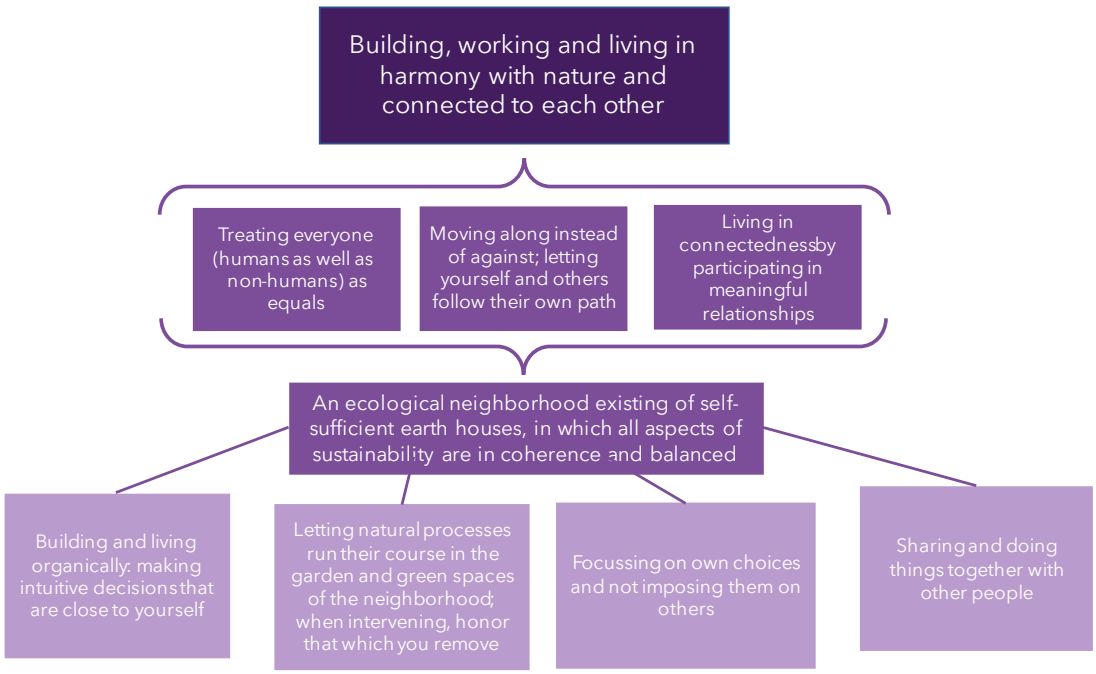

Figure 10 Schematic overview of the Elea's evaluative framework for land ethics. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple).

- Douwe's land ethic is characterized by three main principles:
- ***Creating resilient systems*** in which different parts complement and reinforce each other and in which there are always multiple options to fulfil a certain 'function'. Then, the system is resilient and able to respond to change.
- ***Sparing the Earth*** by minimizing damage through poison, pollution, etc. "because we [humans] are here [on Earth] only for a short time" (Douwe).
- ***Taking collective responsibility*** by caring for the land where one lives. The land should be treated as a 'we-space', a collective space for which the care and responsibility are not left to an individual or (government) agency, but is taken up by the people who live there.

- These ethical principles for good handling of the land come together in the ecological neighborhood. Three more specific principles are especially important when living in the neighbourhood:
- ***Living and building organically*** is about making conscious, collective choices to ensure that the design of the buildings, the construction techniques, and the materials (source, transport, processing, etc.) are all minimizing damage to the environment.
- It is something that cannot be fully defined as stable ethical principle, because there is an intuitive aspect to it and because it is always site-specific customization. Organic building "is about things being connected and in proportion, resonating [with each other]."
- For the ecological neighborhood, organic building and living is shaped in the following way: the design of the houses is such that little energy is needed for heating them (which saves on all kinds of installations); the electricity that is still needed is generated with their own solar panels; the neighborhood pumps up its own drinking water, which is purified by a helophyte filter and drained into a ditch; building materials like sand and wood are favored over materials like concrete and cement, because their

production/processing is less damaging and they could be obtained from close by (the latter is called harvesting and the association had an entire committee for it).

- This principle is also reflected in Douwe's daily life in the neighborhood when he chooses to get his food as much as possible from farmers in the area.
- ***Stimulating and supporting biodiversity***, as a crucial basis for a resilient system, is done by the following things in the neighborhood: the neighborhood is designed in such a way that there is a lot of space for communal greenery, the so-called collective private space; the greenery is allowed to grow a bit messy to provide better habitats, while the borders alongside the paths are mown and pruned to keep a well-maintained outlook; compost is used to improve the growing conditions of the clayey soil that bears the traces of the construction period; light pollution during the night is minimized by installing only few lamps that only switch on when someone is close by and that shine to the ground.
- ***Living together in solidarity while maintaining a private sphere***. An important part of living together in the neighborhood is the joint responsibility for the collective spaces. The responsibility is enforced by the connection that residents have with each other. In that respect, solidarity is important for a good relationship with the land: Since people can do so much more together, living together brings more opportunities to spare the earth and support the resilience of the 'ecosystem' of the neighborhood.
- In order to steer coexistence in the right direction, decisions are taken with the model of sociocracy[14]. During the construction period, this was much more intensive than now, but almost everyone is still involved in a committee or group that does something for the neighborhood.
- When living together in solidarity, it is especially important that everyone has their own space, to enable that "everyone simply has their own life here. All those houses are also different [because of] different priorities, different interests." This allows members to live together without having to give up much freedom of choice or privacy.

In figure 11, a schematic overview of Douwe's evaluative framework for land ethics can be found.

[14] Sociocracy is a decision-making model in which decisions are made on the basis of equality and where everyone supports the decision.

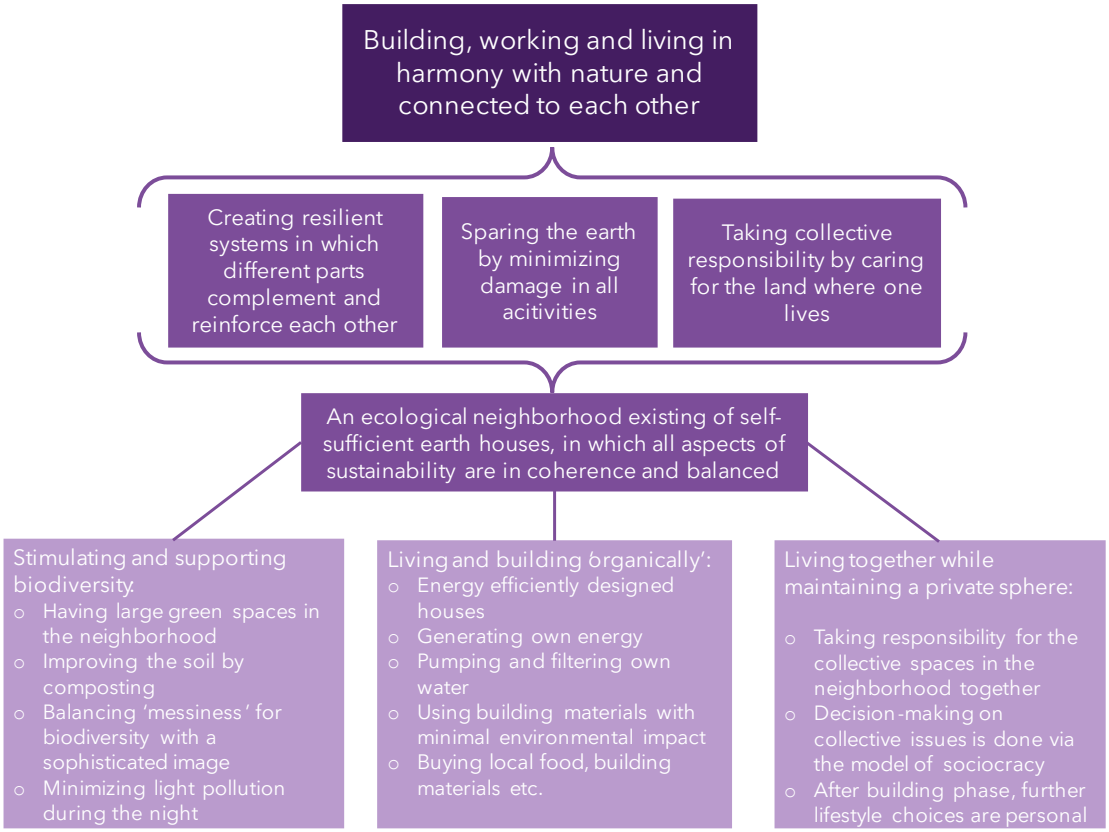

Figure 11 Schematic overview of the Douwe's evaluative framework for land ethics. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple).

c. Which parts of the ethical framework are more fixed and which ones are rearticulated in the fuzzy everyday?

- Elea's land ethic described above is more of a snapshot, as it is something that evolves over time. As a result, nothing is certain for Elea. Only the principle that everyone is equal is something that is becoming increasingly clear to Elea and quite established: "[Saying that the principle is] standing firm can be a bit rigid, but I do feel more and more how it works, […] [that] we live in perfection. People think they are above everything but they are just as much a part of everything as a tick or a mosquito." Elea also says about this "but I think that is a universal law. It is basically so, only we as human beings have applied rational thinking and science to it. We are programmed in such a way that we do not see that [perfection and equality]."
- The principle of equality and letting the natural processes go are established, but can be given shape in practice in different ways. Sometimes you leave something standing, then you pick (part of) a plant to eat it, then again you prune a part of a plant to leave it somewhere else. These are all things that are consistent with Elea's land ethic, but the right thing to do at what time depends on the exact situation.
- Elea is becoming more and more faithful to the principle of organic life. She also calls this a neutral or nondual way of being. It is an unforced state of being. When things come your way, you always have choices to make based on your feelings. Elea thus tries to redefine 'the good' again and again, so that a certain decision at a specific moment feels right for a specific situation. She is confident that she will make the right choices with this approach.

- Over the years, Douwe has become more and more steadfast in his idea that it is necessary and possible to build and live sustainably. However, it is not clear what a good

way to put this into practice: "I think much more customization is needed to design our world sustainably. […] We have to rely on a multitude of possibilities and then that indeed has to be customized." The way in which sustainability is organized in this neighborhood does not necessarily have to be the most sustainable or appropriate option in the future, or for other neighborhoods.
- "Fundamental things probably stay that way, but what does that mean in this situation and that situation? We are constantly on the way there." There is a lot of experimentation going on in the neighborhood, which means that ideas about what is right can constantly change and become more specific and refined over time. For example, what is shifting for Douwe and other neighborhood residents is how best to heat your home. Douwe is a fan of burning wood, but is now beginning to lean more towards heat pumps because it is better for health and saves wood.

The dynamics between ethics and practice

d. How and to what extent do land ethics inform practical engagement with the land?

- The land ethic described above forms the basis of how Douwe builds/built, lives and works in the ecological neighborhood. Since it has been very successful in putting the ethical ideas into practice, this neighborhood has been the most sustainable neighborhood in the country for a number of years.
- According to Douwe, there are currently no things in the neighborhood where his land ethics are not put into practice. There is, of course, advancing insight (as discussed above) and there are new problems that local residents encounter. For example, the water that is pumped contains quite a lot of lime. In the near future, the association wants to reduce in the hardness of the water. In these decisions, the mission and vision of the neighborhood still apply: "our solution will then not be to use a lot of resources or chemicals or something like that", while such a 'quick solution' may have been preferred in another place.
- Nevertheless, Douwe mentions that he is sometimes surprised by the choices that other residents make. For example, Douwe is surprised that not all residents feel the need to eat organically. According to him, the mission and vision are connected mainly with the construction of sustainable houses for some members, and less with other aspects, such as food and airplane holidays.

- Also for Elea, the land ethic described above forms the basis of how Elea builds/built and lives in the ecological neighborhood. However, the connection with other residents in the neighborhood is something that could have been more pronounced for her: "We live together in a neighborhood that we built together. But actually the connection here is much less than in some other communities."
- Moreover, Elea's ethical principle to let natural processes run their course (based on the principle of equality) is something she increasingly 'applies' in practice. But she says "that's also an investigation, you know. In the sense of - not that I look at it is true or is it not true - but how do I relate to that and to what extent do I get out of my comfort zone or not."
- She no longer removes 'weeds', but other things are more difficult. She always takes small steps in this: "I sometimes find it difficult to see that myself, for example a tick. That has such a bad name because it can bring disease. So then you think, that [tick] should be removed. But what if it stays?"

e. What tensions and tradeoffs exist between ethical principles and practices in the initiatives?

- Douwe and Elea both mentioned that tensions occurred regularly between the principle to build organically and what was possible in practice. Douwe: "Sometimes you had no other choice, because the material did not exist or was unaffordable or impossible to combine [with other materials]. Of course, we had to make a number […] of concessions from a purely pragmatic viewpoint. […] A very conscious choice has been made to make the ecological footprint as small as possible, while remaining affordable for average incomes." For example, polystyrene foam was used, while the members of the association tried to avoid this material as much as possible. According to Elea, these kinds of considerations often led to difficult, slow decision-making processes.
- Another tension exists between the desire to build organically and the desire for comfort. The question here is 'what you actually need to live comfortably enough?' Elea likes to challenge herself to push her boundaries to go back to basics, but this is not the case for everyone. Some people, for example, replaced the initially installed compost toilet for a regular water-flushed toilet.
- According to Douwe and Elea, such personal sustainability choices of members have never led to tensions between wanting to be a sustainable neighborhood and letting people make their own choices. Douwe thinks this is because the sustainable basis is solid due to how the neighborhood has been designed and built, and how it is governed. Outside of that sustainable basis, members can choose for themselves how much they want to be involved with sustainability. Members accept that as part of giving people freedom to make their own choices.
- Some tensions were expected but turned out to be not severe in practice. At first, the residents of the neighborhood thought that it was not possible to have trees in the neighborhood, because that would be at the expense of the productivity of the solar panels. In practice, however, it appears that having trees is not a problem, as long as the trees are not too high.
- Regarding Elea's personal land ethic, it is sometimes difficult to put the abstract principle of equality into practice, because in some cases she still wants something. Elea, for example, talks about the bramble in her garden, which she decided to grow in an arch, while removing the rest: "I would like to leave it even freer, but then […] my garden would become completely occupied by brambles. So then the choice would be, I want a large area so that the bramble can run its course."

f. How does practical engagement finetune ethics or inspire new ethical ideas?

- Elea thinks that the land inspires new ethical principles or refines existing ones, but because changes happen so gradually, it is hard to come up with examples.
- One example is that she has a nasturtium (which is a climbing plant) in the garden that has started to crawl across the path and climbed the apple tree. Elea deemed this unpractical because she was afraid she would accidentally break it if she walked down the path. However, when she saw how beautifully the plant had grown towards the light by growing in the apple tree, she realized that it was just a good place for this plant to flourish. Now Elea knows that, by looking closely and experiencing, one can learn what plants like to do. Even though plants do not give explicit messages, they can teach you how to treat them well. If you understand that, that plant can fully fulfill its role. It works the same with people: as soon as you accept people as they are, they no longer feel the urge to take on an exaggerated role (for example, by shouting louder) and they can fully take their actual role.
- Douwe came up with quite a different example. Before Douwe became involved in the initiative, he was mainly engaged in agriculture and food. When he became involved in the construction of the houses, "a [new] domain, where you can also adopt a sustainable attitude, has arisen." It has not made major changes to his land ethics, but it has

expanded the scope for applying those ethical ideas. As a result, Douwe realizes that there is also much to be gained in construction of houses than he thought before.

Contribution to sustainable development beyond the initiative

g. How do biocultural creatives think that their land ethics (could) help in becoming more sustainable?

- The shared vision and mission of the association imply that living sustainably requires ***balancing of all aspects of sustainability***. According to Douwe, their mission and vision especially contribute to sustainable development because they show that sustainable building and living is broader than many people think. It is often the case nowadays "that you build a [regular] house and then only put installations in it to compensate for it a bit. […] Until now, that is what [is being done] with regard to sustainability […] And that can really be done differently."
- The association has not only used technical installations (such as heat pumps and solar panels) to give substance to sustainable living, but has chosen the design of the house in such a way that it is already very energy-efficient without all those installations. In addition, the association has sought alternatives for materials and construction techniques that cause environmental damage through their production, transport or demolition. And last but not least, there is a lot of attention to biodiversity in the neighborhood.

- Another way in which the land ethics of the initiative contribute to sustainable development is by ***experimentation***. According to Elea, there are a lot of people who also feel the need to be closer to nature, by living in homes made of natural materials, making their garden edible, doing more for biodiversity, etc. They are just looking for ways on *how* to do it.
- Douwe mentions that the sustainable options often exist, but are not applied, either because there is a lack of will or because there is no room to learn and experiment together. By experimenting with sustainable building/living, the members of the association develop ideas and practices that can also be applied elsewhere.
- The neighborhood thus contributes to sustainable development by providing a new perspective for the practical application of ethical ideas in practice. Douwe says about this: "If you have never seen this, that it is possible, then you do not know that it is possible. Then you can't want that. […] We simply took a lot of steps to make it easier for others to move in that direction. Then they don't have to do the same as we do, but it is a strong case by now." He also says: "I think it is one of the most promising examples of initiatives around housing and sustainability".

- A third way in which the initiative contributes to sustainable development, is that ***the neighborhood does not exist only as an ethical ideal, but as a reality***. Elea: "we [have] a kind of exemplary function […], a bit like pioneers. We already live like this and a lot of people want to live like this, you see. They can come and see and feel which aspects of this way of living suit them. Of course everyone is different in that regard."
- She also says "what we're showing here, because we've done this, is actually some kind of support, an incentive for others to take on the adventure of life and just make your dream come true. And don't just sit there and think 'I actually want to start building with straw' or 'I want to live on a piece of land in nature'. But just make a start"
- The inspiration that the initiative offers is explicitly more than merely 'technical' or 'practical'. Elea: "So not just 'how did they stack those mats on top of each other?' and 'where did they get those tires from and how did they fill them [with earth]?' But also

'what would it do to me if I lived or lived this way?' […] We are an inspiration in that. Like, 'we do it like this and that, come and feel what resonates with you', you could say."

- Despite being an inspiration, Elea does not feel like she is doing better in terms of sustainable living compared to others because she lives in this neighborhood and makes certain choices. People are used to having that kind of judgment, but Elea thinks that is not right, because everyone follows their own path and also has their own role in life.
- Lastly, the existence of the neighborhood ***disproves prejudice***. According to Douwe, many people think that sustainable living in harmony with nature means that you live in a rather primitive way: "People are then partly surprised that we don't live in a cave underground." Then, it is a revelation when they see "that there is still a lot of space and that we actually do have equipment, and technology and such. So there are all kinds of [inaccurate] ideas on that [sustainable living]. I think we disprove a number of them."

h. How do the biocultural creatives in the initiative express their land ethics to people outside of the initiative?

- The expression of the land ethics beyond the initiative is partially a coordinated effort by the association, but is also done by individual members. Inspiring the world is part of the mission of the association. The association has a communication committee that receives all kinds of requests from students, TV, and all kinds of requests for guided tours. Douwe: "they look at those requests, at those requests and offers from the perspective of, okay, can we contribute to inspiring the world with this?"
- Before the corona pandemic, there were guided tours once every two weeks for which everyone could register. Visitors range from interested individuals to government agencies and companies.

- Elea used to guide a lot of these tours. She enjoys inspiring people from outside the initiative, for example during guided tours: "That's my personal thing, which I really like when I'm enthusiastic about something, that I want to convey that. And I always hear about […] 'how you live is inspiring'. I like to hear that. But that shouldn't be necessary, because if I make those choices for me, then it's all right. I don't necessarily need anyone else to stop eating pumpkins in the summer or something like that. But that is - I hope for people, when I tell a lot about it, then I hope that they can implement something of that into their own daily lives."
- During the tours, Elea likes to give her personal perspective to visitors, also when it comes to the more abstract parts of land ethics. Other members may emphasize completely different ideas.
- People who are interested come naturally. Elea does not feel the need to 'force' her message on people who aren't interested. Although Elea likes to inspire people by showing them around, she does not try to convince people outside (and also within) the initiative of her ethical ideas about what constitutes good use of the land: "I think it is the case in all aspects of life that if I live it and the make choices for me that are good for me, that's all you need. You don't have to demonstrate, for or against anything. I don't have to convince my neighbors not to do that electric lawnmower. I can only make those choices for myself."

- Douwe has not been guiding many tours himself, but he realizes that, even if you are not consciously engaged in communicating, the existence of the neighborhood already has an impact: "In fact, living here is already a statement." But Douwe also goes further in the expression of his land ethics than only practicing them. He thinks it is important to create more awareness on sustainability and ecological problems: "if you ask people 'what do you think is important' and they have absolutely no interest in biodiversity, then

of course you won't get that [biodiversity] as a reply. While for our collective interest I think I know that it is important for everyone. So in that sense I kind of take on a role of a parent, so to speak, who knows better, but I think that's realistic on some occasions."

- Instead of presenting his ethical ideas as normative, Douwe thinks that people will mainly become convinced of new ethical ideas when they start *doing* something, for example starting a vegetable garden or participating in a green project in the neighborhood. He therefore tries to encourage people to do something and hopes that this will eventually result in a change in their ethics.
- Nevertheless, Douwe finds it important to express his ethics. But he also says "it is not my mission to convince people. That's not how I work. [Attempting] that would be even worse for the frustration build-up."

i. On what scale(s) are the land ethics expressed?

- The guided tours are by far the strategy for expressing land ethics that has been used the most. Because of these tours, thousands of people already came to visit the neighborhood. Amongst them are many residents from the area surrounding the neighborhood, but also from other parts of the country. By now, also lot of camera crews have also visited to shoot interviews or TV programs. This is another way to communicate to people on a national scale. The scale on which the land ethics are expressed, therefore ranges especially from local to national. However, sometimes the influence of this initiative reaches further.
- In principle, the association expresses the land ethics to everyone who presents itself. Elea: "we are not active in that [in 'attracting' people]. People come to us [...] Many of them are Dutch. But when we were building [the houses], people came from all over the world because they just wanted to know what it's like, building with tires and straw bales." Douwe also mentions an example of a family that went on holiday in Europe to visit large capital cities like London and Paris, but that also planned a stop in the Netherlands because they were keen on visiting the neighborhood. When drone recordings of the neighborhood were put online, they were viewed by many people from all around the world, which also resulted in new interested parties.
- So even though the association is not consciously targeting an international audience, it is like the butterfly effect: this initiative is resonating in ever larger circles, for example because of interviews, TV programs and social media. In that way, more and more people come to know about the ideals and practices of the association.

- The association is a member of the Global Ecovillage Network, an international network of ecovillages. One member of the association maintains contact with the network, but most members are not actively involved in this. According to Elea, the association is especially in touch with the Dutch branch of this network and they organize workshops. The exchange that takes place is mainly practical, because many Dutch eco-villages are not as developed as the neighborhood. However, their contact certainly also concerns topics of connection with each other or organizational forms that work well or not.
- Some local residents are also members of Transition Towns, another global network on more sustainable living.

Annex VI: Case analysis organic dairy farm

Introducing the case

- This initiative is an organic dairy farm in a polder, with approximately 70 'blaarkoppen' (a traditional cow breed) on approximately 40 ha. The farm is managed in such a way that the cows have a lot of freedom and that there is also room for other animals and plants to live.
- A quarter of the land is strip cultivation where oats are grown for the cows, among other things. There are also a few hectares of grassland with regular groundwater levels, but the largest part of the land (about three quarters) is wet grassland. There, a creek has been excavated and wooded banks have been constructed. The groundwater level is higher due to a pump that pumps water into the ditch.
- The part of the farm with wet grassland is registered as nature and is used for agriculture. I call this 'the nature land'. To manage nature on the farm, a management plan is followed, which is updated annually.

- The interviewees are Hans and Gijs. The initiative has taken shape under the management of ***Hans***. Before Hans was a farmer, he worked for nature organizations, but he always had a deep wish of becoming a dairy farmer. Hans took over the conventional dairy farm together with his then wife from his in-laws and transformed it into what it is today in a few decades.
- Recently, farm has been taken over by ***Gijs***, an acquaintance of Hans. Gijs was born on a dairy farm and always wanted to have cows himself. Next to the dairy farm, where he lives now, he runs two arable farms and one contracting company with two others. Hans is no longer involved in the day-to-day work on the farm, but still deliberates with Gijs, especially when it comes to managing the wet meadows and the creek. He also monitors plants and animals and updates the management plan annually.

Characterizing the land ethics

a. *What values, ideas and principles are part of the evaluative framework for land ethics?*
b. *Which parts of the ethical framework are more abstract and which ones are more specific?*

- It was not realistic to outline one evaluative framework that represents the land ethics of the initiative to a reasonable extent. Since Hans and Gijs are the only ones currently involved in the core of the initiative, there are two land ethics underpinning the initiative. Their land ethics are outlined below.

- The core value of Hans's land ethic is ***connectedness with the land***: "As people you are part [of the whole]. That is so satisfying." Hans describes it as being in contact with something unnamable. When Hans is connected to the land, he has the feeling that he is at home and he feels exactly how the land is doing, whether something is about to go wrong or that he does not have to do anything. Therefore, enacting connectedness with the land can result in very different ways of interacting with the land.
- On the one hand, it means ***letting go*** by, for example, offering peace and space and ***welcoming what presents itself*** without making demands. On the other hand, it is ***taking into account and also taking care of life on land***. Taking life on land into account can be expressed, for example, by making adjustments to plans and practices when a particular animal or plant emerges. That's what Hans means by "don't fight and [instead] bow". Caring for the land is a more active form of accountability, whereby a place is deliberately made suitable for animals and plants.
- Which principle applies at what moment depends on intuition. Beauty, wonder and vulnerability play a role in this intuition, because they are a kind of signpost for what is good. Hans knows from experience that the more vulnerable one is or dares to be, the

better one can connect with the land. Although much depends on intuition, this intuition is fueled by an enormous amount of knowledge and experience, making this land ethic the result of craftmanship that has developed over a number of decades.

- These general principles form the basis for Hans's farming style, in which nature and agriculture are combined under the motto: "everything [animals, plants, etc.] is everywhere, but the farmer selects", which means that Hans consciously leaves and creates space for animals and plants, but then chooses what he will (not) allow to grow/live/develop. The principles mentioned below are leading:
- ***Taking the whole as starting point in farming***: Not maximizing the yield (or profit) that was central, but the well-being of life on land: ''The earth is not yours alone. [As a farmer] you take care of it, you are only a guest.''
- ***Giving space to the natural propulsion*** and welcoming what comes your way, as long as it fits within the business set-up. Flexibility is important when assessing whether something fits within business set-up. Selecting is not wrong, but one must first be open to what is coming (or what is already there). So it is not possible to plan in advance exactly what will be delivered because then one throws away opportunities to give as much space as possible to the natural propulsion. Moreover, some parts of the farmland are more or less reserved for nature to develop.
- In some cases these are small pieces that Hans deliberately keeps, but there are also larger pieces, such as a dug creek surrounded by reed
- ***Using technology as support for care***, but not a substitute for care and attention. For example, Hans only wanted to buy milking robots when he knew that it was a way to give more freedom to his cows.
- ***Farming is something one does together*** with the cows and other plants and animals that live on the farm. If you do it right, you get by together, you don't have to question anyone and you have something to offer each other. With that in mind, Hans tries not only to give nature space, but also to give his cows a lot of freedom to go where they want and he has reserved some pieces of land for nature.
- ***Using external inputs***: fodder and supplements are produced on the farm; the manure from the cows is used on the land, so no additional fertilizer is needed; no pesticides are used. Weeds can be removed with light machines (which minimize soil disturbance).

- This extensive land ethic, that answers many questions about what Hans thins is good and why, does not answer all questions for Hans. About developing the farm as it is now, Hans says: "You have to do it, but you don't know why. That's the honest answer. […] It also has to do with feelings."
- Figure 12 provides an overview of Hans's land ethic.

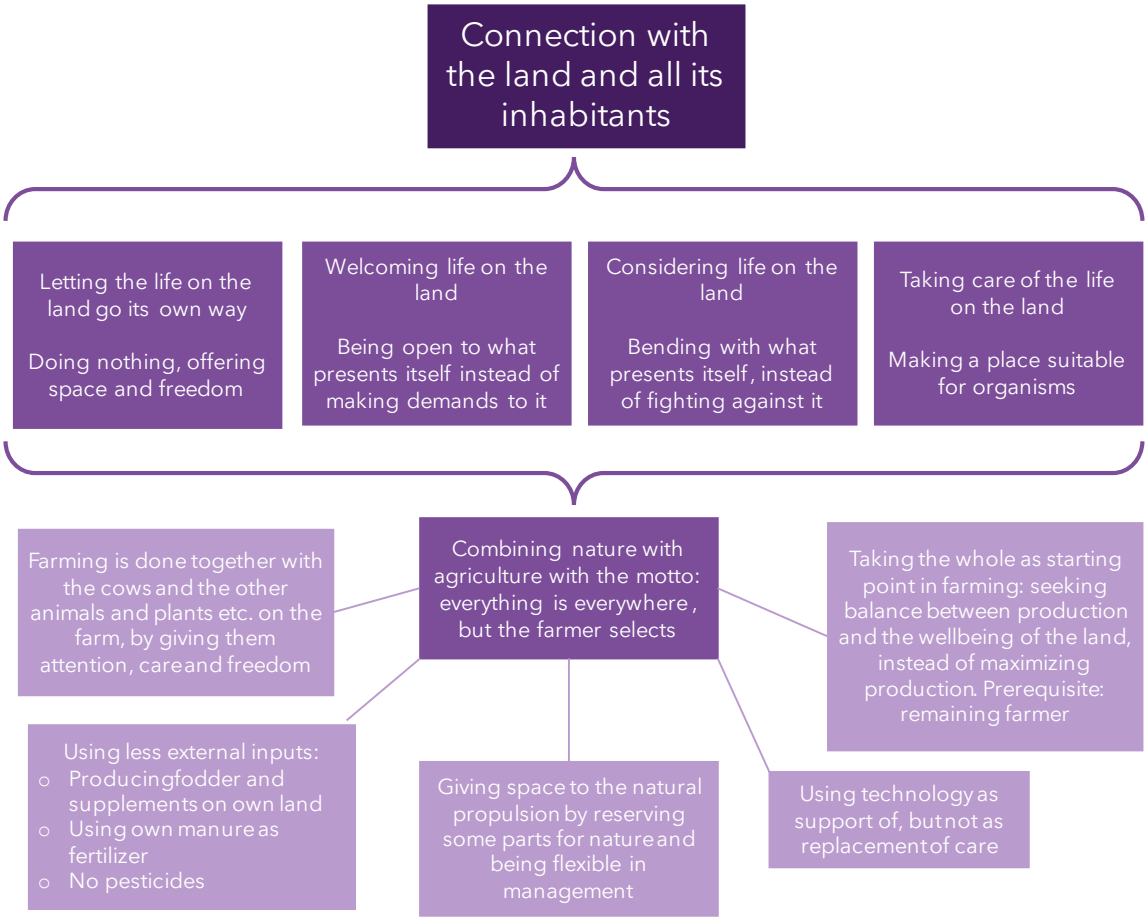

Figure 12 Schematic overview of the evaluative framework for Hans's land ethics, which represents one of the land ethics underpinning the organic dairy farm initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (in lighter shades of purple).

- Gijs's land ethic is quite different from Hans's land ethic. It is more focused on practical farming and less on the big picture of relating with the land: "I am someone who also likes to work with my hands. I also like to be in the land to solve a practical problem. Hans just sees it more as nature and as a contribution to the whole big picture. And by that I mean a […] he has a bigger goal in mind in the basis. And I think that's the big difference between Hans and me. [Nevertheless], we are almost always on the same page about how to get there."
- ***Combining agriculture and nature*** is central to Gijs' land ethic, because agriculture and nature can reinforce each other. However, the precondition is that "it [must] be able to support itself [in a financial sense]." Gijs' land ethic is characterized by the three principles mentioned below.
- ***Taking care of the cows*** to ensure their wellbeing. Gijs ensures that they get enough attention, that they get healthy food and that they are (relatively) free. To give them a sense of freedom, the barn doors are always open and they can go to the milking robot if when they want to, which allows them to maintain an individual regularity. Moreover, Gijs is careful to only separate a calf from the cow when he notices that the cow no longer finds it so difficult to walk to the milking robot without her calf.
- ***Synergy between livestock and arable farming***, which Gijs calls the "modern version of an old-fashioned, mixed farming business." Arable farms can produce fodder for the cattle and the manure from the cattle can be used to fertilize the fields. As a result, there is, for example, no/less fertilizer or feed from abroad.

- ***Managing the land less and less intensively*** so that nature, especially in the soil, has a chance to become more balanced: not all fields are managed in the same way (mosaic management). For example, they are mown at different times and cows are not always allowed everywhere. According to Gijs, farmers should not try to control everything to keep increasing yields, because this is at the expense of the soil and ultimately also at the expense of yields. Another, though less compelling reason for less management, is that birds should also be able to find a home on the farmland.

Figure 13 provides a schematic overview of Gijs's land ethics.

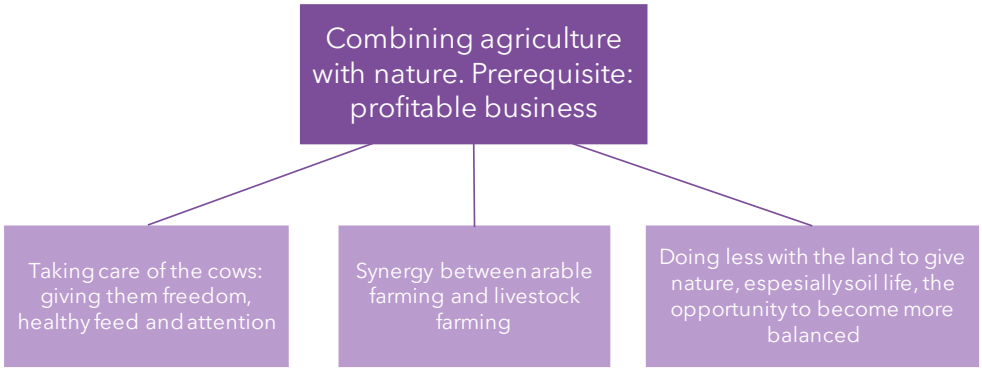

Figure 13 Schematic overview of the evaluative framework for Gijs's land ethics, which represents one of the land ethics underpinning the organic dairy farm initiative. The ethical ideas, principles and values are arranged from abstract (in darker shades of purple) to specific (lighter shades of purple).

- Even though Gijs is the primary decision-maker nowadays, he is bound to the management plan for the 'nature land', he deliberates a lot with Hans and he leaves some decisions to Hans (especially about the nature land). Therefore, the land ethics underpinning the initiative are mainly those of Hans. As time will pass, the land ethics of Gijs will start to take over and become more defining for the development of the initiative.
- Both Hans and Gijs are aware that their land ethics are not the same. During the interview, Hans emphasized often that his land ethics are a result of decades of development and that Gijs is just at the beginning of his own journey. Hans is happy to support Gijs in that process and also does not expect from Gijs to become exactly like him. Gijs on the other hand, is happy that Hans is still there to give advice and reckons that they easily agree on practices, even though their perspectives are quite different.

c. Which parts of the ethical framework are more fixed and which ones are rearticulated in the fuzzy everyday?

- For Hans, connectedness is the underlying value that is the basis for all the other principles that underpin this initiative. However, it is not fixed what this means for certain other ideas/practices: one time that connection can mean that nothing is done and the other time that something is done. The principle/value is therefore fixed, but it does not lead one on one to certain choices.
- The principle "everything [animals, plants, etc.] is everywhere, but the farmer selects", is constantly reconsidered/rearticulated in daily practice. Hans gives an example about planting trees in his yard. Hans mainly wants linden trees (also from a cultural-historical point of view), but ash trees came up spontaneously: "At first I didn't want that because I only wanted linden trees… but that ash tree just wanted to be there, so I think "well go ahead". Well, it looks really nice there now."

- Gijs is determined to take good care of his cows and therefore takes their well-being very much into account. In some aspects of cow care it is not entirely clear what the best way is, for example how long a calf can best stay with its mother: "when do you take a calf away from the cow? In principle [it would be best if] you don't, but yes, we have deviated from that in the past 400 years, so how are we going to give it a good interpretation?"
- Gijs is also firm about his idea that he should be able to live off the company. What is less certain for Gijs is how the management of the natural land can best be organized. Gijs says: "I wasn't such an outspoken nature farmer ten years ago" and indicates that some things he can/cannot do for nature still feel like an obligation.
- Several things come together on natural land: what is done should be good for the soil, there should be enough grass for the cows to eat (also in winter), and there are goals for nature. To determine what is good for the nature land, Gijs takes a look regularly: "So put on your boots and walk around. […] I do that at least three times a week. Then you often immediately do some practical [things] […]. And then the assessment takes place of yes, do I mow, do I graze, where, how much, in what order?"

The dynamics between ethics and practice

d. How and to what extent do land ethics inform practical engagement with the land?

- If Hans is strongly connected, then he, the cows and the other plants and animals, processes etc. can become so well aligned that the company starts to 'sing'. Hans calls it the "one plus one is three feeling". "Then it [the farm] blossoms. Then you notice that you are no longer lagging behind. For example, you never have to call the vet because cows are sick, you always have enough fodder, you have more time to enjoy yourself." That is real craftsmanship.
- But those moments when the company 'sings' are the exception rather than the rule. Usually something is not completely in balance and needs to be adjusted. Land ethics are therefore always a guiding factor in Hans's decisions, but there are certainly tensions (see below).
- Hans is aware that there is no perfect way to handle the land. What he is looking for is not perfection, but 'the least bad way', that is an improvement compared to the conventional way of farming.

- Gijs is not only informed by his own land ethic, but also needs to consider Hans's land ethic. Both Gijs and Hans pointed out that Gijs would not have set up the farm in the same way as Hans did and as mentioned, some practices on the farm align with the Hans's ethics, but feel like an obligation to Gijs. This is especially the case for the bird/nature management and ground water tables. About nature management Gijs says: "As long as Hans wants to interfere with [the management of the] nature [land] and how to do it - he writes a management plan every year. Then I just follow that and think 'you just figure it out'."
- The farm and the land ethics that underpin the farm are still in development. Hans leaves most decisions to Gijs nowadays. He thinks that, as an older generation, he might be able to help develop the 'spark' that he recognizes in Gijs.
- Gijs thinks the company is still in development and thinks it is important that the company can support itself: "to get there, I now mainly focus on the side that the cows can thrive on nature land." In practice, therefore, he sometimes makes more economically driven choices. Those economically driven choices are then, for example, to buy extra feed or medicines, so that the cows receive the right nutrients and remain healthy. This is necessary to ensure that the cows give enough milk, but also, for

example, to maintain the quality of the manure. This is also important to keep the natural land sufficiently productive. So in fact, those economically driven choices are not at the expense of the principle of cow welfare and the principle of synergy between arable farming and livestock farming. There is only more intervention.

- To develop the farm more, Gijs is looking for ways to make the care for the cows better and smarter: "We have milking robots, a straw barn and natural land here. […] I have quite a lot of problems with that. To make the animals go to the robot properly. To allow the animals to eat outside in combination with the robot. And a straw barn that they have to lie on and not get sick from it."
- When Gijs just took over the business, there was no collaboration with arable farms. Now that there is, it is no longer necessary to buy fodder and only half of the supplements. So a big step has been made for the synergy between arable farming and livestock farming. Gijs does not think it is necessary to make everything circular, because feed can be transported so efficiently in the Netherlands. This example shows that the things Gijs considers important (i.e. his land ethics) are becoming more prominent in the initiative.

e. What tensions and tradeoffs exist between ethical principles and practices in the initiatives?

- The ethical principles are Hans's goal, but cannot always inform practice because of tensions that regularly arise: "The daily practice, those are also days when everything goes wrong. On which there are broken machines, sick cows, mud, bad food, [and] quarrel with your wife, until you can go to bed at 12 o'clock, broken. That is also daily practice." On those days the connection seems far away, but the good days give motivation to continue. And even on the worst days, Hans was still mindful of the land: "I never do anything haphazardly. I always saw the consequence for those elements that are important to me. Animals, the land, the livestock."
- Moreover, some tensions seem irreconcilable. For example, it is not possible to grow all the supplementary feed on the farm without buying some extra supplementary feed. And some things remain difficult, such as taking a calf from a cow or eventually taking a cow to the butcher. When Hans first started the business, he even grew tulips conventionally for a while to make ends meet.
- Having a farm can sometimes be a balancing act between letting life on the land flourish as much as possible and being able to get by financially. It was never Hans's intention to earn as much money as possible, but it is important to make ends meet in order to continue farming. For example, Hans first wanted to make all his land wetter. For economic reasons he decided to keep part dry, which some worried neighbors appreciated as well. The drier part provides a stable basis for the cows, both for their feed and for their outdoor space. Hans says about choices Gijs makes: "I'm not going to judge him. He makes choices and they were quite economically driven. But yes, that is also necessary, if you want such a business to retain its value in the distant future, also as a source of inspiration for people in the distant future."
- The management plan for nature causes little or no tension with Hans's idea to give as much space as possible to the natural propulsion and manage that flexibly. Until now, the meadow birds, which are the aim of the management plan, have not yet arrived, but many other birds (farmland birds, reed birds). They are also welcome – entirely in accordance with Hans's philosophy. There is sufficient flexibility in the management plan for this.
- Hans also sees no major trade-offs between taking good care of the cows and the other animals and plants on the land. Blaarkop cows, for example, are known to watch where they walk, so they are not likely to trample a nest. The diversity of plants is also no problem for the blaarkop cows, because they can choose what they need and eat it.

- Gijs does see tradeoffs between taking good care of the cows and the other animals and plants on the land. In the breeding season it is a puzzle for Gijs to manage the natural land well and take good care of the cows, because the cows need grass to eat and land to walk on, while the birds need rest: "in spring [..] we only have a few pieces [of land] that we can use for the cows, and then it gets pretty intensive. But you do that to spare the rest [of the land]. So, like, from March 1 to June 1 it is a lot of puzzling." In spring the land can be very wet, so the cows leave a lot of marks on the land: "I thought "oh, maybe I shouldn't have done that". But yes, I didn't have any food either, so sometimes you have to have something."
- Another tension exists between taking the best possible care of the cows and calves and milk yields. It is not possible to leave the calves with the cow for a long time and let them drink milk, because then there is (almost) no milk left to sell. Gijs does his best to separate the cow from the calf at the right time, but here there is still a tension between the ideal care for the cows and the management: if you separate the calf from the mother too early, "you become just very sad, because that cow is here on the path for two and three days, mooing like crazy. And with a bit of 'luck' the calf too, because then they can just hear each other […] I have the idea that it works a bit that if you wait for that [at the right moment], that it is at least less painful. But the pain will always remain."

f. How does practical engagement finetune ethics or inspire new ethical ideas?

- The land ethic of Hans has developed in the midst of practice. At first, Hans was not aware of why he wanted things to be a certain way on the farm. Over the years, he became more aware of his own ethical ideas and how they had developed.
- Hans wanted to be a blaarkop farmer because his grandparents were too and because he thought they were fantastically beautiful animals. Soon, it became apparent that Blaarkop cows suited well with the business, in addition to the Holsteins. Blaarkop cows are a robust breed, so they need less good quality food and need to go to the vet less often. It turned out that they were also very suitable for grazing on wet meadows, because they pay close attention to where they walk. Hans thinks that's why they don't step on bird's nests. That is how "doing yourself a favor […] suddenly became a philosophy", namely that blaarkoppen can go well with wet meadows where birds nest.
- Hans believes that he has learned a lot from the land, especially when things go wrong. For example, the cows where once accidentally entered a field with alfalfa. That day Hans learned that alfalfa does not necessarily have to be dried before cows can eat it. Also in the breeding of blaarkop cows, something Hans used to be very involved with, the inseminator sometimes accidentally inseminated a cow with the wrong sperm. Sometimes a fantastic cow would be born, giving Hans more knowledge about good breeding. Precisely when a farmer tries to control less, there are more spontaneous things that present themselves and that provide learning opportunities. Many farmers immediately kill whatever they consider to be weeds, but by not doing so, Hans has learned that some weeds are fine or even great food for cows.

- Gijs took over dairy farming from Hans not so long ago. The first year was a kind of internship to see if he wanted to take over the company. He says that at a certain point he began to see how agriculture and nature reinforce each other on this farm. He also says that since they took over the dairy business, "[you] increasingly see how 'bad', well, how bad it sometimes was to use chemistry - which we still do, by the way. […] Those influences are a bit more far-reaching than I could see a few years ago."
- On the dairy farm, Gijs is also at the service of the birds, which means he cannot mow certain grasslands before a certain date. That means that he "leaves more alone and because of that you see things at once that you would not normally have seen. Because then you went for that grass harvest. For example, I have now harvested very nice hay

because I was not allowed to harvest earlier. […] Sometimes, if you are not allowed to do things, then something new will develop and you will also learn that there is something in it and that you can also benefit from."

- Another example about clover: "What you mainly see is that because you are not allowed to touch it and you are not steering, a lot of problems will solve themselves if you give it some time. […] Grass clover is a good example. For thirty years, farmers have been trying to grow grass-clover, but there's always - but it's always about having too much clover or too little clover [in the pasture]. And that's correct, because every time they have too little they intervene, and when they have too much they intervene, and eventually they never get there. While if you leave it alone and don't fertilize it, you see that it will be fine. Nature is much more nuanced than what I thought beforehand. And it is always a puzzle of when to intervene and how much time you can give it, financially too."
- Another example about soil life: "And I think in the world of soil life, that is also less tangible to me, that the influence is immense. The only tangible thing I have is a piece of grassland that has not been fertilized with slurry and chemicals for about 25 years. And um, we've had a few dry years and only one bit [namely that piece of grassland] remains green. Then everyone will be scratching their heads, how is that possible? That is simply because there is more, in the sense of [that] there is more than what we can see. […] Well, it's not growing very fast either, so I'm not saying it was immediately better financially, but it's typical that something happens that no one understands."

Contribution to sustainable development beyond the initiative

g. How do biocultural creatives think that their land ethics (could) help in becoming more sustainable?

- Hans and Gijs think conventional agriculture is not on the right track. Gijs: "I personally think that always sounds very accusatory, while it is not. But I do think that the use of fertilizers and chemicals has had its day."
- He explains the reason for this as follows: "I think the biggest difference is that in conventional agriculture, with the use of fertilizers and pesticides, you […] find a point that could be improved, and you do something for that. And in that way there are more and more small points, and in the past 60 years there have been a thousand of them. But all those measures together break down something [i.e. the larger system]. And there's no point to solve that. […] So if you fight a louse for a very long time and very often, if you use a little fertilizer to increase your yield with another kilo, if everything you do has a certain influence on something else and you don't know what that is, then sooner or later your strategies will not work anymore." Thus, by trying to control/manipulate nature more and more, one eventually destroys the system and that can no longer be solved with a remedy or technique.
- Both the land ethics of Gijs and Hans can contribute to sustainability because their ethics give more room to natural processes to contribute to agriculture, compared to conventional agriculture. When the soil is more balanced, less external input (chemistry, fertilizer, antibiotics) and heavy management interventions will be needed to be able to farm. For the rest, Gijs thinks that the difference with regular agriculture in terms of ethics is not that large, because conventional farmers also want beautiful livestock and want to take good care of them.
- Where Gijs is mostly focused on farming, Hans seems to look at the matter a bit more from the perspective of nature too. For him, the value of his land ethics lies in the fact that agricultural land can again be valuable for nature, while agriculture can also be practiced. The milk and arable yields may be slightly lower, but that leaves room to focus on other things, such as nature, sustainability and animal welfare. Connection, intuition

and craftsmanship are crucial to bring that balance back to farms. Hans does not rule out the possibility that there are also ways to become sustainable without that connection, but he thinks the path of connection is the most beautiful way he has encountered so far.

- Hans hopes that as more and more people in the agricultural sector become enthusiastic about his (or similar) ideas, the culture will eventually change: "I hope that whoever can do it, and who likes it, will do it. And up until now, the culture has naturally been that if you can or liked it, you got out [from the farm]. Because yes, this is the norm [points to the neighbor's neat grassland]. […] Everyone, the banks, the feed suppliers, everyone involved in the farm says 'too bad, but that's not possible'. So those vulnerable, nature-loving people, I come across all of them as bird watchers, as meadow bird protectors. They fight for the farmers, but they also [say] 'unfortunately it was not possible, when I was young, it was not allowed'."
- Hans's ideas have prompted others to change their views (and practices). Interested farmers from all over the country came by. According to Hans, the feeling, the intuition towards connection was often already there, but they were looking for a way to put it into practice, since it is not the norm. At Hans's farm, they could then see a sample of what it might look like in practice and pick out the elements that suit them. The most important thing appears to be that those people see that it is really possible and feasible.
- In the years after Hans gave nature an explicit role on his farm, things have even changed among farmers in the area: "more than half of the farmers have become organic; more than a third have been on the farm to see how the straw shed works and how it is; 80% of the frightened people have called me and said 'oh Hans, fantastic, can I come and have a look?'"
- Gijs also sees this that the existence of the farm has an effect on how farmers in the area think, because farmers always learn a lot from each other: "It's not as if everything is going well here [on this farm]. But if you have those odd ducks [referring to Hans and himself], there's just good stuff in them [their way of farming], just pick them out." That is why Gijs thinks it would be good if you had a farm like this in every village: "Previous opponents now see that this is just farming [too]. And that there is probably […] still a chance to be a farmer, […] to make a living, to earn money, and to use those values. And that [possibility] only becomes visible when it happens [in practice]."

h. How do the biocultural creatives in the initiative express their land ethics to people outside of the initiative?

- Gijs does not explicitly express his ethical ideas regarding combining agriculture and nature: "First I want to make sure that it is possible and I am actually more concerned with looking at others myself." Nevertheless, Gijs is very welcoming when people are interested in how things are going on the farm.
- Hans is different from Gijs in this respect. Hans not only wanted to combine agriculture and nature on his farm, he also wanted to convince other farmers to deal better with nature on their farm: "I don't want to say that my way is the best, because someone else can't either to do. [But] if […] another […] wants to hear elements of how it went for me and sometimes maybe also my vision of something, for what it's worth, then I'm happy to tell you." He also says, "I'm a bit of a missionary too, aren't I. I think this is important and I want to convey that."
- He did this by always being open about his dreams, plans and ideals and on the other hand by being an example: "Then nobody can say that it is not possible, because it is just there." In addition, Hans has always tried to maintain good relations with the other farmers in the polder: "I can do much more for the neighborhood as an example in this area, as someone who is a bit of a pioneer and indicates direction, if I contact with them."

- Hans thinks carefully about what he radiates to the outside world, and especially to others in the agricultural sector. For example, he did not immediately switch to organic because it would look more convincing if he could combine agriculture and nature on a conventional farm.
- Hans also likes that Gijs is taken more seriously by skeptical (and more profit-oriented) farmers because Gijs pays more attention to making the company economically viable.

- Hans's message to other farmers is that how we are doing in agriculture now, "that's culture. And the culture can also be different. And you're not a bad farmer if you bend [with the natural processes], or if you don't kill the last fly, or open the window in your pigsty."
- In the past he tended to propagate his ideas, even with people who thought very differently. He did this out of the conviction that he was doing something good: "And then I was undoubtedly also like 'well, I'll explain it one more time'. But that just doesn't work."
- With that insight, he now thinks with some people "well okay, I'll leave you in your own bubble, but I'll do my thing." That's why he tries to put his energy into people who are open to his message. For example, he helps a farmer in the area with his meadow bird management by engaging the right people and complimenting the farmer on the breeding successes. Hans will not try to convince another farmer nearby, because he did not seem interested in the meadow birds.
- Instead of putting a lot of emphasis on his own ideas, Hans tries to give people trust and recognition when he sees that they are doing good things. That is not necessarily expressing land ethics, but feeding the good initiatives and ideas that people already have: "It is gradually becoming more and more my task to say 'oh, your feelings are right, just do it'."

- Hans emphasizes that he himself has been "pushed to the edge" by the long and difficult process of making the farm the way it is today. As a result, he does not judge other farmers who do not dare to change and go against conventional agricultural culture. Hans does not find it strange that he has encountered resistance: "all pioneers, all people who have taken things a step further, they were also reviled first. Those were people like me."
- Hans thinks that his way is not the only right way and also sees that not everyone can do what he has done: "I don't want to disqualify people ... it's also a form of respect isn't it. And also of letting go."

i. On what scale(s) are the land ethics expressed?

- As Gijs does not focus on expressing land ethics, his impact mainly comes from practicing ethics, resulting mostly in a local to regional impact.
- At the local level, as mentioned, Hans has invested a lot in good relations with the farmers in the same area, because he wanted their support for his plans.
- At a regional and national level, Hans has helped other farmers in various provinces with the switch to nature-friendly farmers from a consultancy firm. He has also set up agricultural nature and environmental cooperatives in several provinces.
- At a national level, Hans teaches at a school for biodynamic agriculture, where he teaches (among other things) students that attention and care for crops and animals is important. He is also working on setting up a curriculum about Blaarkop cows in buffer zones around nature reserves. University students also visit the farm sometimes.
- Hans is not affiliated with international organizations in which his land ethics can be shared with others. However, he does speak at international conferences and has traveled abroad at the invitation of that country's national government to support

farmers in their nature-friendly practices. Now that he no longer works on the farm every day, he has more time to focus on those kinds of projects. Hans has seen farmers all over the world actually do the same thing he does: “It's all families with the animals and the land together trying to do it right. […] I am also someone in that global whole.”