



# BRIDGING POLICY AND PRACTICE

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CRITICAL ASSESSMENT OF THE ROLE  
OF ENVIRONMENTAL COOPERATIVES IN  
THE NETHERLANDS IN CONTRIBUTING  
TO WIDER-EU SUSTAINABILITY  
TARGETS AND EXPLORATION OF  
FUTURE DEVELOPMENTAL PATHWAYS

A CASE STUDY OF BOERENNATUUR

MSC INDUSTRIAL ECOLOGY

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# ABSTRACT

This thesis critically investigates the role of *BoerenNatuur*, as a network of environmental cooperatives in the Netherlands, in contributing to wider-EU sustainability targets and examining the pathways through which its role could be further institutionalised within collective agri-environmental governance. The study is situated within the broader discourse on decentralised and participatory governance models, revealing a persistent gap between rhetorical support and institutional practice. By employing a qualitative case study approach, drawing on thirteen semi-structured interviews and extensive literature review, this study explores how *BoerenNatuur* translates policy goals into territorially embedded action. Furthermore, the study develops an analytical framework, that is used to guide the research process and facilitates five major analytical categories: 1) challenges, 2) success factors, 3) environmental and socio-economic contributions, 4) enabling conditions, and 5) pathways for institutional development. The results demonstrate that while *BoerenNatuur* successfully facilitates collective ecological management, its role remains institutionally underleveraged. Furthermore, respondents express divergent views on the prospects of further institutionalisation, highlighting a core tension between the need for more institutionalised support and the preservation of autonomy, informality and trust-based governance. A key finding is that *BoerenNatuur's* value lies not in full regime integration, but in its hybrid and adaptive positioning across governance levels. Overall, this study's findings contribute to a more pluralistic understanding of institutional change in environmental governance, underscoring the importance of hybrid and locally grounded governance models in navigating contested sustainability transitions.

**Keywords:** *environmental cooperatives, BoerenNatuur, wider-EU sustainability targets, collective agri-environmental governance, institutionalisation, the Netherlands*

# ABBREVIATIONS

AC – Agrarische Collectieven  
AECM - Agri-Environmental and Climate Measures  
AES – Agri-Environmental Schemes  
ANV – Agrarische Natuur Verenigingen  
BHD - Birds and Habitat Directives  
cAECM – Collective Agri-Environmental and Climate Measures  
CAP - Common Agricultural Policy  
CMO - Common Market Organisation  
EC - Environmental Cooperative  
EHS - Ecologische Hoofdstructuur  
EU - European Union  
KRW – Kaderrichtlijn Water  
MLG – Multi-Level Governance  
NWP – Nationaal Waterplan  
NNN – Natuurnetwerk Nederland  
NPLG - Nationaal Programma Landelijk Gebied  
NVWA - Nederlandse Voedsel- en Warenautoriteit  
PAS – Programma Aanpak Stikstof (PAS)  
PO - Producer Organisation  
RQ – Research Question  
RVO - Rijksdienst voor Ondernemend  
VEL - Vereniging Eastermar's Landsdouwe  
VENLA - Vereniging Agrarisch Natuur en Landschapsbeheer Achtkarspelen  
WFD - Water Framework Directive

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# 1. INTRODUCTION

## Emergence and Evolution of Environmental Cooperatives in the Netherlands

As the push for sustainable agriculture intensifies across Europe, new governance models are emerging to bridge the gap between top-down environmental policy and on-the-ground ecological action. In the Netherlands, *environmental cooperatives* (ECs) have evolved as pivotal players in the transformation of Dutch agriculture, driving an effort to balance agricultural productivity and environmental sustainability (Renting & van der Ploeg, 2001). Emerging as a response to the ongoing crisis of productivist agriculture, ECs have developed as innovative associations of farmers and citizens based at the local or regional level, which are often associated with the promotion of activities related to sustainable agriculture, rural development and the effectuation of rural policies (Renting & Van Der Ploeg, 2001). Since the 1990s, these collectives have developed beyond traditional agricultural cooperation, embedding environmental objectives at the heart of their mission and pioneering new forms of landscape-scale stewardship (Riley et al., 2018).

## *BoerenNatuur*: A New Model for Collective Agri-Environmental Management

A major institutional innovation that has marked a transformative step in the EC movement is the development of *BoerenNatuur* in the Netherlands. Established in 2016, *BoerenNatuur* acts as national collective network setting to transform the implementation of agri-environmental policy. Historically, efforts to integrate environmental management into farming practices relied on individual contracts between farmers and the state under the *European Union* (EU)'s *Common Agricultural Policy* (CAP) framework (Alblas & van Zeven, 2023a; European Commission, 2024). However, such approaches often yielded fragmented ecological benefits, lacked spatial coordination, and struggled to generate durable behavioural change among farmers (Alblas & van Zeven, 2023a; Barghusen et al., 2022). As a response to these systematic shortcomings, recent CAP reforms promoted *Collective Agri-Environmental and Climate Measures* (cAECM) to foster cooperation and deliver more coherent environmental outcomes (Alblas & van Zeven, 2023a; European Commission, 2020). Contrary to many other European countries where collective initiatives remained largely informal and of limited influence, in the Netherlands this collective model has been institutionalised through the formation of *BoerenNatuur* (Alblas & van Zeven, 2023a; Boonstra et al., 2021). *BoerenNatuur* coordinates 40 collectives in the twelve Dutch provinces, advocating on the behalf of farmers in policy discussions and ensuring that cooperatives remain aligned with the EU and national objectives (Berner, 2022).<sup>1</sup> Although *BoerenNatuur* itself does not directly implement conservation measures, it engages in critical responsibilities for coordinating subsidy applications, designing conservation contracts, and overseeing monitoring and compliance processes (Boonstra et al., 2021; Barghusen et al., 2022).

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<sup>1</sup> An important distinction should be made between the terms "cooperative" (*in Dutch: cooperatie*) and "collective" (*in Dutch: collectief*). According to the CDI (2024), the word "cooperative" refers to a democratically owned and governed organisation, while "collective" focuses on the non-hierarchical management structure, ensuring all members have equal decision-making power. In other words, while "cooperative" refer to the specific ownership structure, the word "collective" refers to how members participate within this management structure (CDI, 2024). *For the sake of this paper, the term "cooperative" will be used to represent both the "collective" and "cooperative" terms.*



Beyond *BoerenNatuur*'s technical reorganisation of subsidy management, its significance transcends in embodying a hybrid governance innovation that draws on formal institutional structures as well as deeply embedded informal social norms (Hagedorn, 2002; Barghusen et al., 2022). Rooted in longstanding traditions of farmer cooperation and social capital, *BoerenNatuur* has leveraged trust, reciprocity, and collective identity in fostering local and regional ownership, social accountability, and adaptive management strategies among members (Hagedorn, 2013; *BoerenNatuur*, 2019). Through a range of participatory mechanisms, such as farmer-led knowledge exchange, study groups, and collaborative monitoring systems, *BoerenNatuur* has developed a governance culture that is responsive to both the ecological complexity and local socio-economic realities (Boonstra et al., 2021). Crucial to the network's functioning is that it reflects an evolving practices of multi-level environmental governance, where provincial implementation strategies and farmer initiatives are strategically aligned (Boonstra et al., 2021; Alblas & van Zeven, 2023a; European Commission, 2020). By bridging the gap between top-down environmental objectives and bottom-up stewardship practices, *BoerenNatuur* suggests a unique and scalable model of how decentralised collective action can be institutionalised without eroding the autonomy, relational dynamics and contextual adaptability that underpin grassroots innovation (Barghusen et al., 2022).

### Research Gap: A Blind Spot in Environmental Governance

Despite the *BoerenNatuur*'s growing role in the transition toward more sustainable agricultural management in the Netherlands, academic and policy-oriented research has only partially captured its institutional significance.<sup>2</sup> First of all, the existing literature has only limitedly explored the essence of ECs' model and their economic and societal behaviour, hence undermining their role as a unique governance model debilitating their plausible progress as an institutionalised governmental entity. While the literature has dived deep into the socio-economic and political function of *agricultural cooperatives* and *cooperative* entities as such, only a few papers focus on the *functions*, *challenges* and *success factors* of ECs beyond their sole organisation contributions (Candemir et al., 2021; Suchoń, 2022; Schwettmann, 2014). Furthermore, although cooperation between agricultural actors has been widely discussed in relation to achieving broader sustainability goals, such as in the research by as Iyer (2020) and Bijman & Höhler (2023), the distinctive role of ECs and *BoerenNatuur* in delivering landscape-scale ecological outcomes has received limited academic attention.

Secondly, the current recognition of *BoerenNatuur* remains primarily informal and operational with it being largely restricted to its involvement in CAP funding streams and subsidy implementation (Barghusen et al., 2022; Alblas & van Zeven, 2023a). Despite its critical role in translating wider-EU sustainability objectives into local action, barely any research has addressed the prospects of *BoerenNatuur*'s further institutionalisation within multi-level governance frameworks. Additionally, currently there is a lack of systematic empirical analysis assessing *BoerenNatuur*'s measurable environmental and socio-economic impacts, establishing uncertainty around the effectiveness and possible scalability of the model.

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<sup>2</sup> This paper addresses *BoerenNatuur* as a network of ECs or EC model. This is an important to be mentioned, considering that most of the existing literature focuses on ECs and the development of ECs into EC model in the Netherlands (*BoerenNatuur*).




Finally, while existing studies have descriptively explored the conditions necessary for the success of Dutch ECs and their adaptation to shifting policy environments, no academic or policy-oriented research to date has comprehensively investigated the enabling conditions required for *BoerenNatuur* to contribute systematically to wider-EU sustainability targets. Similar gap is present in examining how ECs governance innovations might be developed or expanded to support long-term transitions. Missing to address these knowledge gaps risks overlooking some of the critical opportunities for leveraging decentralised, participatory environmental governance models in pursuit of wider-EU sustainability objectives.

## Research Objectives and Questions

Against this backdrop, this study aims at critically investigating how *BoerenNatuur* as network of ECs contribute to wider-EU sustainability targets and to identify possible developmental pathways for expansion of *BoerenNatuur's* role within collective agri-environmental frameworks. In doing so, this study seeks to address *three interconnected gaps* in the existing literature:

- ▶ *The lack of empirical assessment of BoerenNatuur's environmental and socio-economic contributions.*
- ▶ *The insufficient examination of the governance and institutional dynamics that shape its operational model, such as challenges and success factors*
- ▶ *The absence of strategic insights into how BoerenNatuur's role could be developed, expanded and potentially further institutionalised to strengthen its contributions to wider-EU sustainability objectives and the enabling conditions required to do so.*

To systematically address these gaps, this study adopts an exploratory qualitative case study approach, combining literature review synthesis and empirical inquiry. An analytical framework is developed to structure the research, synthesising literature to identify key analytical categories: *challenges, success factors, environmental and socio-economic impacts, enabling conditions* and *pathways for institutional development*. Guided by this framework the research applies a dual-phase design. Firstly, it engages in critical literature review to assess how *BoerenNatuur's* role and impacts have been conceptualised to date. Secondly, it conducts semi-structured interviews with key stakeholders to assess the extent to which the literature represents the analytical categories and is compared to the empirical results. Finally, this research explores the broader political and institutional conditions necessary for developing, expanding and potentially further institutionalising *BoerenNatuur's* contributions at national and EU level, based on the semi-structured interview results. The case of *BoerenNatuur* in the period of 2016-2025 is taken as primary unit of analysis, with embedded sub-collectives examined to understand how national coordination translates into local governance practice. This design allows for both analytical generalization and contextual sensitivity. Overall, this paper aims at answering the following **research question (RQ)**:



*"To what extent does BoerenNatuur contribute to wider-EU sustainability targets in the Netherlands, and what potential pathways emerge for expanding its role within collective agri-environmental governance frameworks?"*

Additionally, the following *sub-RQs* are addressed to structure the inquiry:

*Sub-RQ1: What are the key challenges that constrain the performance of BoerenNatuur and its member ECs within the Dutch agri-environmental context?*

*Sub-RQ2: What are the success factors that enable BoerenNatuur and its member ECs to operate effectively in the Dutch agri-environmental context?*

*Sub-RQ3: What environmental and socio-economic impacts are attributed to BoerenNatuur's current activities?*

*Sub-RQ4: What are the enabling conditions for expanding BoerenNatuur's role in contributing to wider-EU sustainability targets?*

## Research Relevance

By answering these questions, this study aims at not only advancing theoretical understanding of *BoerenNatuur* within sustainability transitions but also provide practical policy insights and recommendations for supporting decentralised, collective models of environmental governance across Europe. Furthermore, this thesis contributes to the field of *Industrial Ecology* by providing insights into how collective action models can bridge the gap between ecological policy objectives and systemic implementation in agricultural landscapes. By doing so, this research highlights the role of bottom-up institutional innovation in shaping resilient and adaptive governance frameworks for sustainable natural resource management and integrated land-use planning.

## Structure of Thesis Report

The rest of this thesis report proceeds as follows. *Chapter 2* reviews the relevant literature on ECs, the theories underlying their attributes, and multi-level sustainability governance, situating the RQ and sub-RQ within these frameworks. *Chapter 3* presents the research design and methodology and explains the qualitative case study approach based on synthesising literature review and semi-structured interviews. *Chapter 4* analyses the literature review and empirical findings, addressing the key challenges, success factors, impacts and enabling conditions that are identified through the data. *Chapter 5* discusses the findings critically in relation to broader literature, outlining their implications and limitations, and further offering targeted policy recommendations. Finally, *Chapter 6* concludes the thesis by summarising the main insights and proposing directions for future research.

## 2. LITERATURE REVIEW

This literature review provides a comprehensive overview of the conceptual, historical, and institutional foundations of ECs and *BoerenNatuur*, with specific focus on their development and role in the Netherlands. Furthermore, the review turns to the case of *BoerenNatuur* as a unique institutional innovation under EU's agri-environmental policy framework. Finally, it scopes literature on *BoerenNatuur* and ECs relevance to sustainability, establishing the scholarly basis for analysing ECs as evolving governance actors in collective agri-environmental management.

### 2.1 Conceptual Foundations: Key Concepts and Definitions

In the past few decades, the term **environmental cooperative (ECs)** has emerged in several literature sources, relating to a grassroots response to the environmental consequences of productivist agriculture with the major goal of reconnecting farming with its ecological and social context (Renting & van der Ploeg, 2001a; Franks & Mc Gloin, 2007). In the literature, ECs are often referred to as “*agricultural collectives (agri-collectives)*” (in Dutch: *agrarische collectieven*, ACs) and earlier “*agricultural nature associations*” (in Dutch: *agrarische natuur verenigingen*, ANVs) (Alblas & van Zeven, 2023a). ECs are defined as voluntarily, locally rooted associations of farmers and non-farmers, promoting sustainable agricultural practices through active participation in rural policy implementations (Renting & van der Ploeg, 2001; Franks & Mc Gloin, 2007). Furthermore, Alblas & van Zeven (2023a) define ECs as a group of farmers organized to be collectively responsible for the implementation of agri-environmental policies at the local level. Some early examples of ECs are the cases of *Vereniging Eastermar's Lânsdouwe* (VEL) and *Vereniging Agrarisch Natuur en Landschapsbeheer Achtkarspelen* (VENLA), which pioneered methods to address pollution, landscape preservation and resource management on a community-wide basis (Glasbergen, 2000).

Central to the research on ECs in the Netherlands has been the work by Renting & van der Ploeg (2001a), who have been exploring the role of ECs as **alternative governance entities** for creating coherence between farming, ecology and society. What made the process possible in the case of ECs, according to Renting & van der Ploeg (2001a), are three key factors. Firstly, Renting & van der Ploeg (2001a) stresses the establishment of **new institutional arrangements** between state and agriculture to mediate long standing tradition of distrust. North (1990) defines institutions as the *rules of the game in society*, distinguishing between formal and informal institutional arrangements. In this context, institutional arrangements are characterised by a shift from hierarchical, top-down regulation to a contractual and negotiated partnership, in which the state sets clear, measurable policy objectives and ECs responsibility for achieving these goals through self-designed, locally adapted strategies (Renting & van der Ploeg, 2001a). This is linking to the second factor discussed by Renting & van der Ploeg (2001a), which stresses on ECs capacity to rebuild trust within the local framing communities through collaboration and coalition building. This is done by forming coalitions between farmers, environmental groups, and rural entrepreneurs to collectively manage land use and resolve

conflicts through integrated regional development (Renting & van der Ploeg, 2001a). Finally, the authors stress the ECs effort to reshape institutional relations to give farmers more autonomy with the goals of re-embedding farming by shifting control back to local actors, enabling context-specific, ecologically aligned practices through negotiated flexibility and institutional support. Rather than deregulating agriculture, they promote re-regulation tailored to local needs, empowering farmers to innovate and restore the cultural, environmental and social relevance of their practices (Renting & van der Ploeg, 2001).

A term that greatly underlines the environmental cooperative movement is the notion of **agri-environmental co-management** and **collaborative governance**. According to Albas & van Zeben (2023a), co-management commonly refers to the *“collaboration between farmers and other landowners carrying out agri-environmental measures”*, while collaborative governance mainly foresees the involvement of both governmental and non-governmental actors in the processes and structures of decisions making at the relevant scheme level (Alblas & van Zeben, 2023a, p.2). Albas & van Zeben (2023a) further stress the close linkage between these two processes, considering that management of ecosystems is shaped by relevant institutions underpinning such management. Furthermore, a final aspect of agri-environmental governance that is crucial to define is its capacity to sustain *“[...] processes and structures of public policy decision-making and management that engages people constructively across boundaries of public agencies, levels of government, and/or the public, private and civic spheres in order to carry out a public purpose that could not otherwise be accomplished”* (Alblas & van Zeben, 2023a, p.2).

## 2.2 The Dutch Environmental Cooperative Movement

### 2.2.1 Historical Context

The Dutch agricultural industry has a long-standing cooperative tradition, with various forms and shapes of cooperatives playing key roles in food retail, wholesale, and emerging sectors such as professional services and healthcare (European Commission, 2012a). Two major developments have shaped this evolving landscape: the consolidation of cooperatives through mergers, and the growing establishment of Producer Organisations (POs) (European Commission, 2012a). An example of the former is the consolidation of rural credit banks under *Rabobank* as a financial company, resulting in a reduced number of local branches while expanding its membership basis (European Commission, 2012a). Meanwhile, the latter trend is specifically visible in fruit, vegetable, horticulture, and arable farming cooperatives, which represents a tendency driven by policies such as the 1996 *EU Common Market Organisation* (CMO) regulation, which facilitates the growth of POs (European Commission, 2012a).

ECs began emerging in the Netherlands in the early 1990s, however, their roots can be traced back to the broader landscape and agricultural cooperative traditions and the mid-20th century rural governance movement (Glasbergen, 2000; Runhaar et al., 2020). For most of the 20th century, Dutch agriculture was primarily focused on increasing productivity, with state-led modernization policies and intensified farming practices, also known as productivist agricultural regime (Glasbergen, 2000; Runhaar et al., 2020). A shift in awareness of the

environmental impacts of intensive agriculture in the 1960s began to take place, with a greater focus on issues such as soil degradation, water pollution and biodiversity loss (Glasbergen, 2000). It was not until the late 1970s and 1980s that the environmental consequences of industrialized farming promoted the introduction of new environmental regulations, which restricted certain agricultural practices, such as the excessive use of manure and pesticide application (Hees et al., 1994). Up until the 1990s, farmers responded to such challenges and policies individually, rather than through a collective or cooperative framework, and sustainability was either secondary or of no concern, compared to economic productivity (Glasbergen, 2000). Since then, ECs have grown rapidly, with almost 200 associations and 9000 farmers, covering 55% of agricultural lands in the Netherlands in 2005 (SOURCE?).

*For more detailed information on the “Rise of Environmental Cooperatives and BoerenNatuur in the Netherlands: Foundations and Historical Context” please see Appendix A1.*

## 2.2.2 Institutional Context

Since their establishment ECs have functioned as highly autonomous and self-governing entities, yet their active and ongoing engagement with stakeholders across different governance and societal levels places them within a distinct institutional context. The institutional framework that has been governing ECs in the Netherlands has been shaped by a dynamic interplay between multi-level governance, collective action, processes of agricultural decentralisation and overall shift towards more sustainable land use within EU and Dutch national policy dimension (European Commission, 2024).

### Formal Institutional Context

A defining feature of the formal institutional context ECs in the Netherlands is the interplay between European, national and provincial governance. ECs have been significantly influenced by the CAP framework by the EU through its policy frameworks, funding mechanisms, and regulatory requirements (European Commission, 2024). A major development is the inclusion of the *Agri-Environmental and Climate Measures* (AECM) in 1994, with which a new financial support mechanism was provided to farmers by the EU for adopting environmentally beneficial practices (Alblas & van Zeven, 2023a). Under CAP Rural Development Pillar, these contracts provided a framework for member states to offer voluntary contracts to farmers (Alblas & van Zeven, 2023a). Furthermore, these were guided by the legal requirement to “*aim to preserve and promote the necessary changes to agricultural practices that make a positive contribution to the environment and climate*” and respectively compensate beneficiaries for income foregone and any additional costs (Alblas & van Zeven, 2023a, p.1).

Within this formal structure, the individual member states retained flexibility to design the AECM schemes according to national and regional priorities (Alblas & van Zeven, 2023a). In the case of the Netherlands, this has led to growing concern over the limitations of contracting individual farmers and resulting in fragmented measures, limited ecological impact, poor spatial coordination, and gaps in compliance and monitoring (Alblas & van Zeven, 2023a). More recent reforms of the CAP have introduced greening measures which have prioritized environmental funding and decentralised implementation of AECM through collective schemes (Barghusen et

al., 2022). *Collective AECM* (cAECM) is EU's response to address the issues of individual AECM, offering "new opportunities to bring a broad range of people [or] other entities together, thereby overcoming the disadvantages of fragmentation" (Alblas & van Zeven, 2023a).

### Informal Institutional Context

Alongside the complex institutional context within which ECs are functioning, there are deeply embedded social norms rooted in trust, reciprocity, and collective identity among farmers that are crucial for ECs functioning (Hagedorn, 2002). In his research, Hagedorn (2002) and Hagedorn (2013) emphasizes the significance of informal institutions, such as social norms and shared values, as crucial in facilitating collective action for agri-ecological management. When it comes to ECs, they represent an entity of leveraging trust-based networks and community-driven decision-making processes to implement environmental policies effectively through stakeholder engagement, peer accountability, and local ownership of sustainability initiatives (BoerenNatuur, 2019). In the Netherlands, the longstanding traditions of farmers cooperation represents a history of farmers voluntarily self-organising themselves to coordinate conservation practices (Alblas & van Zeven, 2023a). Such informal collaboration draws heavily on social capital based on trust, networks and shared norms. Initial environmental cooperatives often involved farmers that developed their own monitoring systems, knowledge exchange, and adaptive management strategies without state intervention (Barghusen et al., 2022). Emerging from local community dynamics, ECs in the Netherlands have enabled a sense of environmental ownership and autonomy (Barghusen et al., 2022).

*For more detailed information on the "Historical Overview of Institutional Changes: 1990-2025", please see Appendix A2.*

## 2.3 Collective Environmental Governance in the Netherlands: The Role of *BoerenNatuur*

The introduction of cAECM provided new opportunities for landscape-level coordination on national level, promoting possibilities for collective agri-environmental management and collaborative governance (Alblas & van Zeven, 2023a). Several initiatives have emerged in various European states as response to the opportunities provided by cAECM such as in Belgium (e.g. *Agrobeheergroepen*), Germany (e.g. *regional trusts*) and Ireland (e.g. the *Burren Programme*) (Alblas & van Zeven, 2023a). Despite their broad collaboration between farmers aiming at working together to share best practices and deliver on joint environmental goals, these groups remained largely informal and with limited influence (Alblas & van Zeven, 2023a).

### The "Dutch Model" for Agri-Environmental Governance

Unlike many other EU countries, however, in the Netherlands the introduction of cAECM marked a significant institutional shift in how agri-environmental policies are implemented (Barghusen et al., 2022). In 2016, the Netherlands introduced what is known as the "*Dutch Model*" for agri-environmental management, where the key responsibilities for the distribution and coordination of the state's agri-environmental subsidies between farmers are delegated to a newly established network of ECs, better known as *BoerenNatuur* (Alblas & van Zeven, 2023a;



BoerenNatuur, 2022).<sup>3</sup> Operating as an umbrella organisation, *BoerenNatuur* unites forty region-based ECs in the Netherlands, covering the entire Dutch countryside (BoerenNatuur, 2024). Special feature of the networks is that each collective has its own governing board which is democratically elected by its members (Alblas & van Zeven, 2023a). What *BoerenNatuur*'s major mandate includes is tasks such as coordinating, inspecting, and if needed sanctioning the management efforts of individual farmers, providing decision-making at the organisation-level and implementation of agri-environmental policies at the local level (Alblas & van Zeven, 2023a). What this entails is that individual Dutch farmers no longer have direct contracts with the government, but through the ECs of which they need to be a member, in order to apply for cAECM (Barghusen et al., 2022). Furthermore, all collectives under *BoerenNatuur* that are eligible for receiving the cAECM subsidy are certified by independent foundation, which guarantee that the collectives meet certain quality requirements for management, organisation and administration (Boonstra et al., 2021). Alongside *BoerenNatuur*, numerous other bodies are involved in the implementation of the cAECM, such as the provinces, *BIJ12*, regional water authorities, the Ministry, the Netherlands Enterprise Agency (in Dutch: *Rijksdienst voor Ondernemend, (RVO)*) and the Netherlands Food and Consumer Product Safety Authority (in Dutch: *Nederlandse Voedsel- en Warenautoriteit, (NVWA)*) (Boonstra et al., 2021). Nevertheless, ECs are the final recipients of the subsidy that RVO pays out on behalf of the provinces.

A distinctive feature of the “Dutch Model” is its embedding of bottom-up, self-organised collective action within EU’s multi-level governance framework (Alblas & van Zeven, 2023a). In the Netherlands, rather than administering the cAECM solely by governmental bodies, the responsibilities are delegated to regionally anchored ECs, coordinated nationally by *BoerenNatuur* (Alblas & van Zeven, 2023a). What sets the Dutch approach apart is that these ECs act as certified organisation that autonomously plan and implement measures tailored to local ecological and social contexts (Alblas & van Zeven, 2023a). In this context *BoerenNatuur* plays a key bridging role in this structure, facilitating vertical coordination between decentralised collectives and higher-level governance actors, including provincial and national authorities. The exceptional feature of this arrangement is how it transforms farmers from passive subsidy recipients into active co-governors, by embedding landscape-scale environmental stewardship within a self-organised, farmer-led structure (Alblas & van Zeven, 2023a). Overall, the Dutch Model exemplifies a unique and institutionalised approach to multi-level environmental governance, where locally embedded collective institutions are empowered to contribute to the design and delivery of EU-level agricultural policy objectives.

### Theoretical Design Foundations of the “Dutch Model”

Underlying feature of the “Dutch Model” is its design, which draws from several strands of governance theory. A central feature is that it embodies principles of *polycentric governance*, where multiple formally autonomous decision-making entities operate at different governmental scales, yet remain institutionally connected through overarching rule systems and mutual coordination (Ostrom, 2010). In the Dutch case, ECs, provinces, and national agencies interact through formalised but non-hierarchical channels, which allows adaptive

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<sup>3</sup> *BoerenNatuur* is officially a network of *agricultural collectives*, whose major focus is the implementation of cAECM. They are also ECs in nature, hence, to avoid ambiguity the agricultural collectives under *BoerenNatuur* will be addressed as ECs.



responses to local condition while simultaneously aligning with various EU policy goals (Alblas & van Zeben, 2023a). Another aspect of the model is that it reflects the Netherlands' long-standing tradition of *neo-corporatist* governance, which is mainly characterised by cooperation between the state and organised societal actors (Holzinger et al., 2008). This is reflected in the long-standing Dutch practices of stakeholder inclusion, deliberation and consensus-based decision-making, exemplified in the water boards and the collective-based structure of *BoerenNatuur*. Another important aspect is that the system resonates with *commons theory* and various *collective action* scholarship, particularly Elinor Ostrom's design principles for community resource management (Ostrom, 1990). In the case of ECs, many of these principles are visible in practice and particularly the clearly defined group membership, locally designed rules, and participatory decision-making (Boonstra et al., 2021; Alblas & van Zeben, 2023a). Finally, the ECs' overall ability to autonomously design conservation mosaics based on landscape-level biodiversity priorities, rather than individual plots, illustrates the way collective self-governance is embedded within broader multi-level institutional structure.

### Ongoing Developments and Challenges

Recent developments of the cAECM have amplified the role of *BoerenNatuur* in driving improvements and professionalisation within the system. In response to early implementation challenges, *BoerenNatuur* has actively supported the ECs through a learning-based approach by organising study meetings, dedicating study groups and other knowledge exchange activities (Boonstra et al., 2021). Furthermore, *BoerenNatuur* has contributed to the simplification of the rules and digital procedures, as well as area-based cooperation and extending of partnerships (Boonstra et al., 2021). Major challenge for cAECM's implementation is the monitoring process, which is currently limited to a small number of species of international importance. Additionally, some major differences between the ECs within *BoerenNatuur* such as the number of participants, and size of covered area have proven challenging for the professionalisation of the network. Overall, however, *BoerenNatuur's* crucial role in the implementation of the subsidy scheme, process of certification of individual collectives and collaboration with various stakeholders have contributed to their evolution as institutionalised actor in the cAECM transition (Boonstra et al., 2021).<sup>4</sup>

## 2.4 *BoerenNatuur's* Relevance to Wider-EU Sustainability Targets

While emerging as an institutional response to the administrative decentralisation of cAECM, *BoerenNatuur's* operationalisation has revealed a more complex and potentially transformative role within the Dutch environmental governance landscape. Beyond its structural configurations, the model introduced a distinct approach for aligning ecological priorities and socio-political realities through collective action and territorially embedded decision-making (Boonstra et al., 2021; European Commission, 2020). What this results in is a growing interest

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<sup>4</sup> A crucial distinction should be made between *BoerenNatuur* as a network of ECs and the individual ECs as such. In contrast to the individual ECs, *BoerenNatuur* is not given a formal role in the implementation of the cAECM (Boonstra et al., 2021). Hence, while the individual ECs are the ones that are the last recipients of the cAECM subsidies, *BoerenNatuur* coordinates implementation tasks on national level and acts as ambassador for nature-inclusive agriculture (Boonstra et al., 2021).

in *BoerenNatuur* as a vehicle for delivering substantive ecological and socio-economic outcomes. The following section examines the extent to which *BoerenNatuur* contributes to wider-EU sustainability targets, focusing on its ecological relevance and socio-economic significance.

## 2.4.1 Ecological Relevance

### Biodiversity Conservation

Core element of the scheme is the use of habitat approach to conservation measures, focusing mainly on species of international importance that are highly dependent on the agricultural area as well as conservation of biodiversity outside the *Netherlands Nature Network* (in Dutch: *Natuurnetwerk Nederland*, (NNN)) (Boonstra et al., 2021). Major focus of the cAECM scheme have been the international obligations regarding nature protection and target species of the *Birds and Habitat Directives (BHD)*, which includes 68 target species such as the yellow wagtail, lapwing, black-tailed godwit and others (Boonstra et al., 2021). The tailoring of the objectives comes from the provinces, and it is based on the regional ecological conditions, sometimes adding locally important species to complement national goals which support *EU Biodiversity Strategy for 2030* (Boonstra et al., 2021). The inclusion of additional species of provincial concern further demonstrates the ecological ambition that extends beyond compliance and into territory that enhances EU ecological networks such as *Natura 2000* and *Green Infrastructure Strategy*.

### Landscape Connectivity and Strategic Habitat Delineation

Strategic habitat delineation and a shift towards managing ecologically promising “core areas” also align with EU’s efforts to strengthen ecological networks and increase the resilience of rural landscapes (Boonstra et al., 2021). Central focus of *BoerenNatuur* is the concentration of efforts into ecologically promising “core areas”, with the goal of supporting species dispersal and long-term viability (Boonstra et al., 2021). This strategic management greatly complements the *EU Biodiversity Strategy for 2030*, which calls for expansion and better management of protected areas and ecological corridors. However, according to Boonstra et al. (2021), the variation in criteria for green and blue infrastructure and limited data highlight the need for improved monitoring and cohesion to ensure that EU targets are met comprehensively.

### Improving Water Quality

Finally, recently growing focus on improving water quality and water management marks another key point of ecological relevance in supporting the *Water Framework Directive (WFD)*. Currently, *BoerenNatuur*’s focus promotes chemical and ecological improvements of surface waters, as well as soil conservation and hydrological resilience (Boonstra et al., 2021). Additionally, despite focus being awareness-raising among farmers, recent efforts such as targeting phosphate hotspots in the province of Friesland indicate strategic shift towards effectiveness and result-based water management (Boonstra et al., 2021). Furthermore, cAECM flexibility and evolving partnership between regional water boards and ECs under *BoerenNatuur* create a promising foundation for integrated water-landscape planning.

## 2.4.2 Socio-Economic Relevance

### “Bridging Function”

A study by Alblas & van Zeven (2023a) critically emphasizes *BoerenNatuur*’s “bridging function” with regards to setting environmental objectives, the selection of ecologically promising areas, and the contracting of individual farmers. Firstly, the authors stress that while the Dutch government remains accountable for fulfilling biodiversity obligations, such as under *EU Birds and Habitat Directives*, operating responsibility for implementing agri-environmental measures is devoted to provincial governments. In turn ECs under *BoerenNatuur* are responsible for “developing subsidy bids that set out what agri-environmental land management they are planning to contract among farmers and how this will contribute to the provincial objectives” (Alblas & van Zeven, 2023a, p.4). Furthermore, ECs perform a bridging function in “translating” environmental objectives to the level of individual farmers stressing the importance of specific agri-environmental policies. Secondly, Alblas & van Zeven (2023a) focus on the role of *BoerenNatuur* in concentrating agri-environmental management at a landscape-scale through *ecologically promising areas* to ensure the securing of public funds. With the role to coordinate and implement ecologically coherent mosaics of agri-environmental measures within provincially designated areas, ECs under *BoerenNatuur* tailor interventions to local ecological dynamics. Finally, the authors amplify *BoerenNatuur*’s role in contracting individual farmers by leveraging local networks and ecological expertise to match suitable participants with agri-environmental goals, while simultaneously maintaining close communication and oversight through local sub-groups. What this approach allows for is for ECs to be “small enough to stay close to the farmers, but big enough to keep translation costs low” (Alblas & van Zeven, 2023a, p.6).

### Influencing Farmers’ Participation

cAECM lays a major role as an instrument motivating farmers to implement more environmentally friendly farming practices, however, the previous lack of spatial coordination and the neglect of the landscape scale application have undermined their success (Barghusen et al., 2021). A study by Barghusen et al. (2021), stresses how the introduction of *BoerenNatuur* on national level introduced an alternative model to better reflect the participatory nature of the scheme. This study’s results raise to the ground a greatly underexplored factor of farmers’ participation such as better *problem awareness*, *perceived responsibility* and a range of *social norms* all brought with the introduction of *BoerenNatuur*.

## 2.5 Literature Review Summary

This literature review highlights the unique role of the “Dutch Model” in collective agri-environmental governance in the Netherlands, particularly in how it bridges the gap between farmers and environmental policymakers, through the networked structure of *BoerenNatuur* and its member ECs. This chapter outlines how *BoerenNatuur* plays a central role in aligning policy objectives with local farming practices, under the cAECM. While the literature recognises *BoerenNatuur*’s relevance to wider-EU sustainability targets, it leaves open critical questions about the model’s effectiveness in terms of actual *environmental* and *socio-economic contributions*, scalability, and prospects of further institutional development.

These identified gaps provide the rationale for this study's exploratory qualitative case study design. They support the need for empirical investigation into *BoerenNatuur*'s current impact, as well institutional potential. The existing literature also recognises the presence of underlying *challenges* that constrain *BoerenNatuur* and ECs' current operations, as well as a range of intrinsic and instrumental *success factors* that support their performance.

Building on these insights, this literature review provides the conceptual basis for the analytical framework developed in *Chapter 3*. Furthermore, it informs the five analytical categories – *challenges, success factors, environmental and socio-economic contributions, enabling conditions and potential institutional development pathways* – which are used in structuring both the data collection and data analysis. In this way, the literature review serves not only to contextualise the research problem, but also to shape the methodological approach taken forward in the empirical phase of the study.

## 3. METHODOLOGY

### 3.1 Research Design

This study adopts *exploratory qualitative case study approach* to address the fragmented understanding of *BoerenNatuur*'s contributions to wider-EU sustainability targets as well as the lack of systematic understanding of its underexplored prospects for institutional development (see Figure 3.1). This approach is well-suited for unpacking the complexities of emerging governance models in real-world contexts where theory and practice are still evolving. The *two main objectives of the research design* are:

- ▶ **Research Objective 1:** To assess the extent to which existing literature accurately captures *BoerenNatuur*'s current environmental and socio-economic contributions, as well as the challenges and success factors shaping its operations
- ▶ **Research Objective 2:** To explore the previously undocumented implications of *BoerenNatuur*'s potential institutional development, including the enabling conditions and requirements for scaling its governance role.

The study employs a *single-case study approach*, focusing on *BoerenNatuur* in the period of 2016-2025 as primary unit of analysis and with embedded sub-collectives examined to understand how national coordination translates into local governance practice. According to Thomas (2011), a case study approach supports exploration of both confirmatory and emergent themes that ensure that existing theoretical models are tested while allowing for new insights. A major pitfall of a single-case study is the inability for generalization, which according to Yin (2018) and Stake (1995) is compensated with the in-depth analysis in this case of governance mechanisms with valuable insights into environmental cooperative functioning. In the case of environmental cooperation, single-case analysis also allows for capturing the complexity of policy interactions, stakeholder engagement and governance barriers within a real-world setting, providing an understanding of the policy dynamics within *BoerenNatuur*'s context (Flyvbjerg, 2006). Overall, while this approach limits statistical generalization, it supports analytical generalization, allowing for confirmation and emergent analysis.

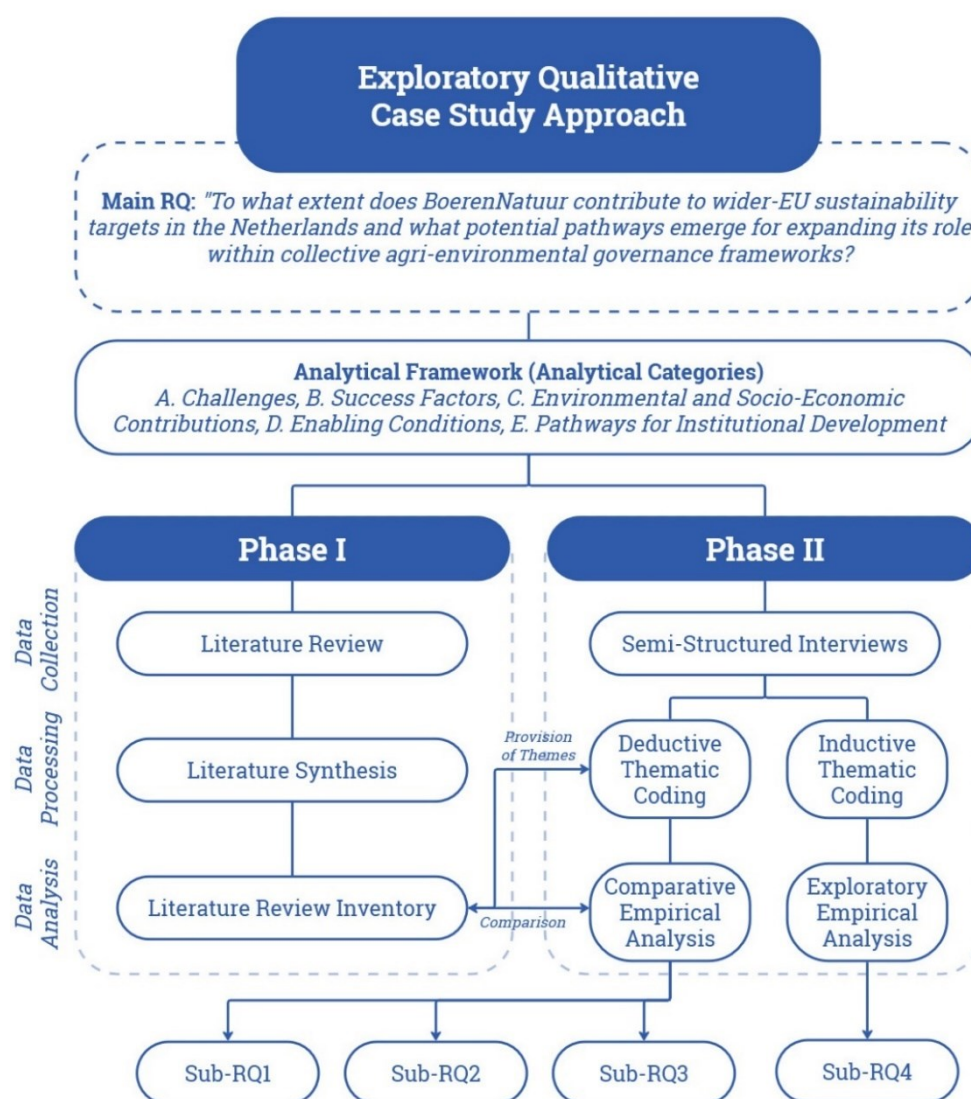
A *dual-phase research design* is applied laying the basis for the *data collection* and *data analysis*, which allows for both comparison and discovery, ensuring that the findings remain grounded in empirical data while simultaneously identifying new areas of inquiry:

- ▶ **Phase 1:** To critically assess how *BoerenNatuur*'s challenges, successes and impacts (environmental and socio-economic) have been conceptualised to date.
- ▶ **Phase 2:** To compare the existing literature with interview results on challenges, success factors and impacts and explore underrepresented perspectives on institutional pathway designs and their underlying requirements.

Overall, this approach enables triangulation of multiple data sources to build a comprehensive understanding of *BoerenNatuur*'s role in environmental governance by providing contextually

rich insights through direct interaction with stakeholders (see Figure 3.1). To ensure analytical coherence, the empirical research is guided by a structured analytical framework (see Section 3.2).

**Figure 3.1** Research Design Overview



## 3.2 Analytical Framework

To ensure conceptual clarity and analytical coherence, this study develops a structured *analytical framework* to address the main-RQs: "To what extent does BoerenNatuur contribute to wider-EU sustainability targets in the Netherlands, and what potential pathways emerge for expanding its role within collective agri-environmental governance frameworks?" The framework is designed to assess the current institutional positioning of *BoerenNatuur* and the potential pathways for expanding its role in contributing to wider-EU sustainability targets. The



framework is inductively developed from the existing literature and refined through empirical engagement with the case-study. While the literature (*Chapter 2*) provides initial insight into *BoerenNatuur*'s institutional context and internal organisation, it does not yet answer the central question of how this actor can evolve further within agri-environmental governance structures. Hence the purpose of this analytical framework is to bridge the gap between what is already known and what this study aims to uncover, which are the potential pathways and conditions of *BoerenNatuur*'s further institutionalisation. Furthermore, the analytical framework serves as the foundation for both structuring the data collection processes and guiding the data analysis. Finally, the analytical framework is operationalised through a qualitative research design that includes *literature review* and *semi-structured interviews*.

## Structural Foundations

The analytical framework is structured around two complimentary *analytical layers*:

- ▶ **Descriptive Layer:** Focuses on the current state of *BoerenNatuur* by assessing challenges, success factors and measurable impact.
- ▶ **Exploratory Layer:** Focuses on the potential for upscaling, by analysing the enabling conditions and pathways for further institutional development.

Furthermore, while the framework is informed by a range of theories, which it applies selectively throughout the analytical categories and as interpretive lenses rather than structuring frameworks. This allows for the study to remain grounded in practical realities of collective agri-environmental governance, while still linking findings to broader conceptual debates on institutional change and sustainability transitions.

## Assumptions

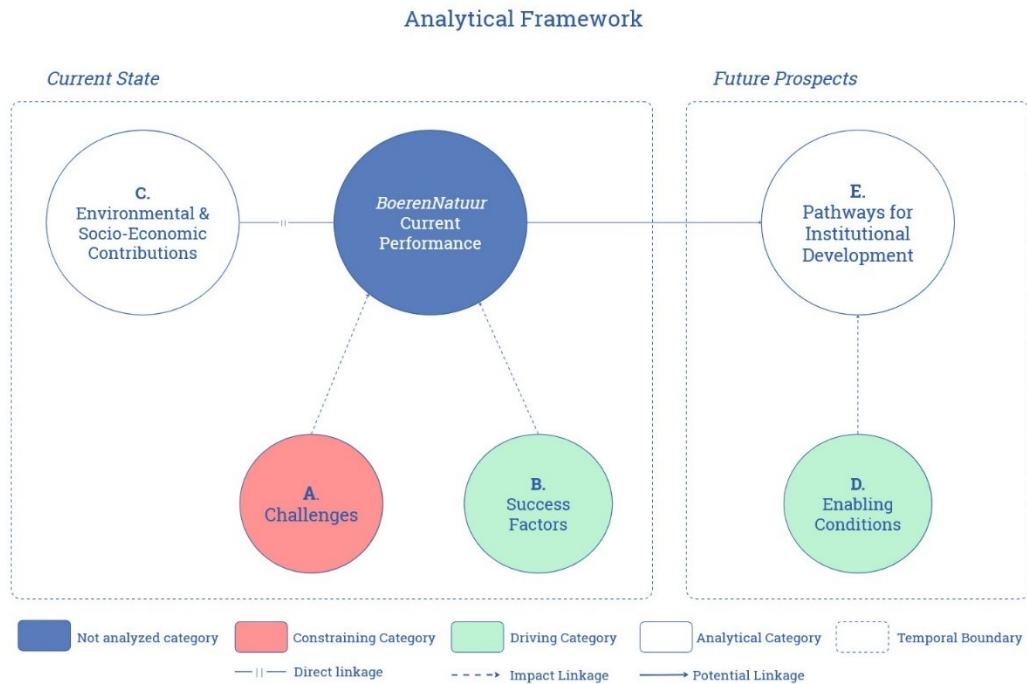
This analytical framework is grounded in several key assumption. Firstly, it assumes that *BoerenNatuur* possesses a level of institutional coherence and operational autonomy that allows for meaningful analysis across local and national scales. Secondly, the framework functions on the premise that governmental arrangements and sustainability transitions are shaped by both structural conditions and agency-driven processes. Finally, the framework assumes that institutional development is desirable and possible.

### 3.2.1 Analytical Categories

The analytical framework identifies *five analytical categories*, which serve as practical and policy-relevant lenses. While theoretically informed to ensure analytical depth and interpretive clarity, each category is empirically grounded and not theory driven. These are *A. Challenges*, *B. Success Factors*, *C. Environmental and Socio-economic Impacts* and *D. Enabling conditions*. These dimensions are interrelated and collectively support the analysis of the fifth overarching category, which is *E. Pathways for Institutional Development* (see *Figure 3.2*).



**Figure. 3.2** Structured Analytical Framework for Evaluating BoerenNatuur’s Contributions to Wider-EU Sustainability Targets and Future Institutional Development



### A. Challenges (Constraints)

This framework frames *challenges* as a *constraining* category, conceptualising it as the structural, institutional and operational constraints that hinder the effectiveness of *BoerenNatuur* and its member ECs in their current performance. Drawing from existing literature on ECs and environmental governance, this category considers challenges as the fundamental limitations within governance system that prevents *BoerenNatuur* from fulfilling its current potential, prospectively constraining its contribution to wider-EU sustainability targets and institutional scalability. The framing is theoretically informed by *Institutional Theory*, which helps interpret how formal rules and norms may limit organisational developments (Scott, 2014). Furthermore, *Multi-Level Governance* (MLG) is particularly relevant in informing how misaligned incentives, overlapping mandates, and regulatory fragmentation creates governance bottlenecks (Hooghe & Marks, 2003). Overall, this analytical category addresses *sub-RQ1*:

“What are the key challenges that constrain the performance of *BoerenNatuur* and its member EXs within Dutch agri-environmental context?”

### B. Success Factors (Drivers)

This framework frames success factors as a *driving* category, conceptualising it as the internal mechanisms and social dynamics that enhance *BoerenNatuur*’s current performance. Grounded in the Dutch EC model, this category captures the conditions enabling *BoerenNatuur* to sustain cooperation, legitimacy, and potential impact. The category is theoretically informed by *Collective Action Theory* and Ostrom’s design principle, highlighting how decentralised governance, clear rules and local accountability may contribute to effective cooperation

(Ostrom, 1990; Poteete et al., 2009). *Social Capital Theory* also informs this category by emphasizing its bonding and bridging capital dimensions (Putman et al., 1993; Woolcock & Narayan, 20). Finally, the category is informed by the concepts of *adaptive* and *transformative governance*, which highlight the importance of learning, flexibility and stakeholder participation in navigating complex and evolving agri-environmental contexts (Folke et al., 2005; Chaffin et al., 2014). Overall, the category aims at addressing *sub-RQ2*:

*“What are the success factors that enable BoerenNatuur and its member ECs to operate effectively in the Dutch agri-environmental context?”*

### C. Environmental and Socio-economic Impacts

This category focuses on assessing the tangible outcomes *BoerenNatuur*’s work by examining its environmental and socio-economic contributions. The category is theoretically anchored to the concept of *output legitimacy*, which refers to the perceived effectiveness of various governance arrangements in delivering results (Scharpf, 1999). This category also addresses the empirical gap in the literature regarding the measurable impacts of ECs in the Netherlands under the *BoerenNatuur* network (Runhaar et al., 2017; Termeer et al., 2018). Additionally, the category is related to the transformative governance theory, which highlights its strategic role in demonstrating impact to build the necessary credibility for institutional change (Patterson et al., 2017). Hence, measuring the impacts becomes not only a matter of assessment but also a pre-condition for the possibility of *BoerenNatuur*’s potential institutional development and prospective policy integration. Overall, this analytical category addresses the following *sub-RQ3*:

*“What environmental and socio-economic impacts are attributed to BoerenNatuur’s current activities?”*

### D. Enabling conditions (Drivers)

This analytical framework frames *enabling conditions* as a driving category and conceptualises it as the contextual and systemic drivers that allow *BoerenNatuur* to pursue further institutional development and realise the developmental pathways (see *E. Pathways for Institutional Development*). To ensure policy relevance and empirical grounding, this category adopts the six-fold *enabling conditions* framework introduced by the IPCC Special Report 1.5., which are *i. Multi-Level Governance*, *ii. Institutional Capacity*, *iii. Behavioural Change*, *iv. Technological Innovation*, *v. Policy Instruments*, *vi. Finance* (Waisman et al., 2019). These domains are used to guide the exploratory process of how various conditions affect the possibility of developing *BoerenNatuur*’s role. Hence, *enabling conditions* are treated as dynamic and mutually reinforcing, rather than fixed prerequisites. Overall, this category addresses *sub-RQ4*:

*“What are the enabling conditions for expanding BoerenNatuur’s role in contributing to wider-EU sustainability targets?”*

### E. Pathways for Institutional Development

Finally, this category conceptualises *institutional developments* as the exploration of possible designs through which *BoerenNatuur* can expand its role within collective agri-environmental governance. Important specification is that these pathways are not understood as fixed

trajectories but as configurations of institutional arrangements, shaped by internal capacities and external enabling conditions (see *category D. Enabling Conditions*). Building on insights from *transition studies* and *Institutional Theory*, this category emphasizes how niche actors like *BoerenNatuur* can evolve and take alternative governance forms that differ the dominant policy regime (Ostrom 2005; Geels, 2011). Furthermore, pathways are seen as design alternatives, which reflect variations in coordination, recognition, and integration into broader policy frameworks. This notion is informed by transformative governance, which stresses the importance of adaptive capacity, institutional learning in constructing possible governance scenarios (Patterson et al., 2017). Overall, this category is trying to address the *main-RQ*, also through the lens of the rest of the analytical categories.

### 3.3 Data Collection

This study employs twofold data collection method consisting of *literature* and *semi-structured interviews*. This combination allows for theoretical triangulation and empirical grounding, allowing for comprehensive insights into *BoerenNatuur*'s institutional development prospects.

#### 3.3.1 Literature Review

Firstly, a literature review is being used to synthesise into an inventory academic and policy-oriented literature relevant to ECs, agri-environmental governance, and *BoerenNatuur* with specific focus on three analytical categories: *A. Challenges*, *B. Success Factors*, and *C. Environmental and Socio-Economic Contributions* (see Section 3.2).

#### Search Strategy and Databases

Relevant literature was identified through systematic searches in academic databases including *Scopus*, *Web of Science* and *Google Scholar*. The research also used some grey literature, such as reports, government documents, and *BoerenNatuur*'s internal publications, which were sourced from the website of the *European Commission*, the Dutch *Ministry of Agriculture, Fisheries, Food Security and Nature* (in Dutch: *Ministry van Landbouw, Visserij, Voedselzekerheid en Natuur*) and *BoerenNatuur*'s itself. Boolean operators and phrase searching were used to refine results and expand inclusion of interdisciplinary sources (see *Appendix B1* for a list of the search terms used).

#### Inclusion and Exclusion Criteria

In order to select the relevant literature, a ***selection criteria*** was used based on *inclusion* and *exclusion* factors. Firstly, for the *inclusion criteria*, considering the study at hand the growth of ECs in the early 1990s, sources were used with publishing dates between 1990 and 2025. However, to ensure contemporary relevance in conjunction with the emergence of *BoerenNatuur*, most of the sources used are published between 2015 and 2025. Additionally, the sources used featured empirical or theoretical relevance to at least one of the five analytical categories. Furthermore, sources used had direct focus on the Dutch context. Considering the essence of the study, all sources were published in English or Dutch, with Dutch sources being translated in English as needed by using *DeepL (open-source online translator)*.

Secondly, *exclusion criteria* were also used to ensure relevance. The sources were excluded if focusing solely on technical agronomy without governance relevance. Additionally, the literature focuses predominantly of environmental cooperatives with energy focus, but due to the relevance of this study only sources related to agriculture were chosen. Finally, the literature review excluded sources lacking methodological transparency or empirical depth.

### 3.3.2 Semi-Structured Interviews

A total of 13 *semi-structured interviews* are conducted with representatives from *BoerenNatuur* and its sub-collectives, stakeholders with knowledge of ECs and *BoerenNatuur* dynamics, policy experts, academic experts and farmers. Semi-structured interviews are specifically useful for case-study analysis, because of their capacity to balance between consistent questioning and flexibility to delve deeper into scientific themes (Yin, 2018). The interviews follow a thematic guideline in accordance with the research objectives and analytical framework (see *Appendix B2*). The interviews are conducted in person or virtually on *Teams* or phone call, depending on the logistical capabilities of the participants. The duration of the interviews ranged from 50 to 80 minutes, and it was recorded with *Teams* and personal phone recorders. The recordings were transcribed with *Teams* “*transcribe*” function for those conveyed on *Teams*, and with Microsoft Word “*Dictate → Transcribe*” function for those recorded with phone recorder. The recordings and transcripts were stored in an institutionally approved and secured data storage.

*Please refer to Appendix B2 for the full list of questions addressed in the interviews organised around thematic guidelines.*

### Sampling Criteria

The interview participants are chosen through *purposeful sampling*. Furthermore, considering the comprehensive nature of the study, a *maximum variation sampling*, or heterogeneous sampling is being used to capture the widest range of perspectives possible and identify common patterns that are true across variations. The interview includes thirteen participants, represented by *BoerenNatuur* representatives, individual ECs’ representatives, academic experts, ministry experts and policy experts. Furthermore, the participants were selected based on a *sampling criteria*, which included *participants’ relevance to the research topic, availability and willingness to participate, geographic representation and variations in organisational scope* (see *Appendix B3*, for an elaborate explanation of sampling criteria).

*For reasons of confidentiality and to protect the anonymity of participants, the names of individuals and their representing organisations are not disclosed.*

### Ethical Considerations

This study is conducted in accordance with established ethical principles for qualitative research, with particular attention to the protection of participants’ privacy, informed consent, and responsible data handling. All participants were provided a clear explanation of the study’s purpose, their role in the research, and the voluntary nature of their involvement. Participants implicitly consented to their involvement by responding to the invitation email and scheduling

an interview. At the beginning of each interview, the researcher reiterated the purpose of the study, explained how the information would be used, and clarified the voluntary and confidential nature of participation. *Verbal consent* was obtained from all interviewees prior to the start of the interview.

To ensure confidentiality, all participant data has been anonymised, with each participant being assigned code identifier to protect their identity throughout the analysis and in the presentation of the results (e.g. *Participant 1 (P1), Participant 2 (P2), etc.*). Hence, the names of the participants and the direct organisation they represent is only known to the primary researcher and are not disclosed in any part of the study. No audio recordings or personal data have been shared beyond the scope of the research, and all digital files have been securely stored on university-run maintained server (*Microsoft OneDrive*) accessible only to the researcher.

The research involved questions regarding institutional roles, governance experiences, and public initiatives and not personal or sensitive information, thereby presenting minimal risk to participants. Nonetheless, careful consideration was given to the ethical implications of quoting stakeholders who operate in a relatively small and interconnected sector. Where necessary, quotes have been paraphrased or generalised to further reduce risk of attribution.

## 3.4 Data Processing and Analysis

This section outlines the methods used to process and analyse the collected data throughout the research. The section explains the structured approach taken to synthesise literature and analyse qualitative interview data. Additionally, the analysis is designed to align with the research questions and analytical categories, combining both deductive and inductive strategies to ensure a comprehensive understanding of the question at hand. This section firsts introduces the Literature Review Inventory, where the literature review is synthesised and following from there the two-step thematic coding of the interview data.

### 3.4.1 Literature Review Inventory

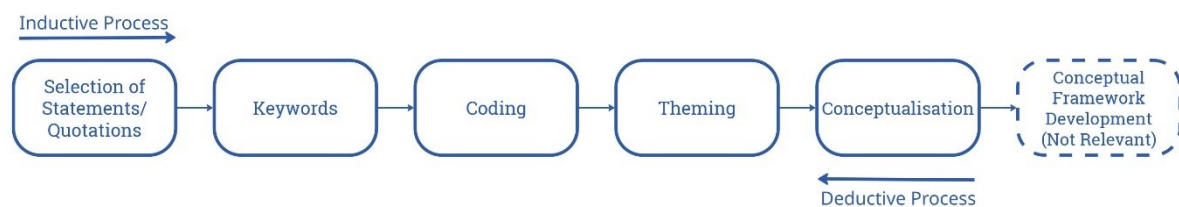
The literature review served a dual purpose within this research. Firstly, the review aimed to develop a structured understanding of the existing academic and policy-based knowledge related to *BoerenNatuur* and comparable ECs. Secondly, the literature review was designed to inform and guide the empirical phase of the study by identifying patterns that can later be tested and compared through semi structured interviews. For the analysis, data was analysed through a structured synthesis process aimed at mapping relevant insights from academic and grey literature sources focusing on three of the analytical categories (*A. Challenges, B. Success Factors and C. Environmental and Socio-economic Contributions*). The process involved systematic extraction and comparison of key findings, themes and conceptual framings from each selected source and creation of inventory with the findings. Each document was reviewed in full, and the content was manually summarised in a matrix that aligned with the analytical categories. While being partial and provisional, this baseline provides an initial set of ideas from existing knowledge that are then refined and tested by the empirical phase. The results of this

process are presented in the *Chapter 4.1 Phase I: Literature Review Inventory*, summarising key sources and their contributions across the analytical categories. Overall, the literature review inventory aims at addressing *Sub-RQ1*, *Sub-RQ2* and *Sub-RQ3*.

### 3.4.2 Thematic Coding

The semi-structured interviews were analysed using a thematic coding approach combining deductive and inductive analysis strategies following the step-by-step process guide by Naeem et al. (2023). In their guide, Naeem et al. (2023) define the thematic coding process as the identification, labelling, and organising of patterns or meaningful features in qualitative data to form the basis for themes that reflect the core insights of the research. *Figure 3.3* exemplifies the five-step guide used by this paper, excluding *Step: 6 Development of Conceptual Model* due to its irrelevance to this study.

**Figure 3.3** Step-by-Step Thematic Coding Process Diagram (Adapted from Naeem et al. (2023))



Thematic coding serves both as a validation mechanism for the findings from the literature review and as an exploratory tool for surfacing new empirical insights. The process follows a two- different coding strategies aligned with the study's analytical framework (inductive and deductive).

### Comparative Empirical Analysis

Firstly, thematic coding is applied to assess the extent to which the themes identified in the literature (with regards to *challenges*, *success factors*, and *environmental and socio-economic contributions*) were reflected in the interview responses. This helps aim at comparing and refining the conceptual understanding established through the literature review and identify discrepancies, nuances, or confirmations emerging from stakeholder perspectives. This phase uses *deductive coding*, where themes and concepts are derived from the *Literature Review Inventory* (see *Chapter 4.1*), then they are used to thematically derive quotations from the interviews and compare the literature review findings with the empirical results. Overall, this section aims at addressing *Sub-RQ1*, *Sub-RQ2* and *Sub-RQ3* and the results are presented in *Chapter 4.2 Comparative Empirical Analysis*.

### Exploratory Empirical Analysis

Secondly, thematic coding is used to uncover the interviewees' perspectives on potential developmental *pathways* and the enabling conditions necessary for *BoerenNatuur's* further institutionalisation. This exploratory phase allows for the emergence of new themes from the

interview results bringing insights that are crucial for the addressing the *main RQ* and *Sub-RQ4*. Unlike the *Comparative Empirical Analysis*, this phase focuses on inductive coding where code emerge organically from the line-by-line reading of the transcripts. Then the codes are organised into themes and empirically analysed. The results from this analysis are presented in *Chapter 4.3 Exploratory Empirical Analysis*.

Overall, the coding process is conducted manually and refined iteratively to ensure consistency and to capture the layered meanings present in the data. Furthermore, themes are grouped under corresponding analytical categories, compared across stakeholders, and synthesised to identify points of convergence, divergence, and new conceptual linkages. These results inform the synthesis presented in the discussion chapter and shape the development of policy recommendations.



## 4. RESULTS

This chapter presents the empirical and analytical findings of this study, organised into three analytical steps: 1) *Literature Review Inventory*, 2) *Comparative Empirical Analysis*, and 3) *Exploratory Empirical Analysis*. Each sub-chapter builds sequentially to address the sub-RQs and collectively guide towards answering the main-RQ. The structure of this chapter is guided by the analytical framework and further refined to reflect emergent themes and insights drawn from the data.

### 4.1 Phase I: Literature Review Inventory

This section focuses on the synthesis of existing literature on ECs and *BoerenNatuur* into an inventory. The aim of this section is to identify the key *challenges*, *success factors*, and *environmental and socio-economic contributions* attributed to *BoerenNatuur* and ECs current functioning. Furthermore, these insights form the foundation for the subsequent empirical phases and help establish baseline for comparison and analysis.

#### 4.1.1 Challenges

The literature results reveal a multi-faceted set of challenges that hinder the success of *BoerenNatuur* and its individual collectives. *Table 4.1.* provides an overview of the different thematic categories and literature sources associated with the findings. The analysis outlines six major thematic dimensions which are: *Stakeholder Coordination*, *Farmers-Related Barriers*, *Administration and Governance*, *Budget Constraints and Costs*, *Struggle for Institutional Support*, and *Voluntary Nature of Cooperative Participation*. The synthesis of challenges highlights how ECs operate within a constrained governance and institutional context. A recurring tension lies in the mismatch between centralised policymaking and the regional ecological needs of farmers and other relevant stakeholders (Prager, 2015; Roebeling et al., 2023). While ECs are positioned to foster participatory governance, they remain structurally marginalised due to limited funding, fragmented regulatory frameworks, and a lack of formal institutional legitimacy (Renting & van der Ploeg, 2001; Boonstra et al., 2021). At the farm level, resistance to ecological compliance is compounded by increased production costs and market disadvantages (Hart, 2015; van der Pol, 2022), which often lead to policy defiance or low uptake of sustainability schemes (Cunha & Swinbank, 2011). The voluntarism underpinning ECs' member participation, coupled with weak internal leadership, further erodes strategic cohesion and capacity to scale (Franks, 2008). These findings reinforce the need for more adaptive, multi-level governance model, which reconciles economic viability with ecological objectives and strengthens the institutional backbone of ECs (Verwoerd et al., 2017; Buckwell et al., 2015).

**Table 4.1.** Key Challenges Identified by the Literature Review Analysis

Thematic Category	Challenges	References
Stakeholder Coordination	<ul style="list-style-type: none"> <li>▶ <b>Lack of adaptability and engagement:</b> Centralized governance models have struggled to adapt to regional needs, leading to a lack of effective stakeholder engagement. This has hindered local participation in policy implementation.</li> <li>▶ <b>Conflict of interest:</b> Diverging goals between farmers, environmental groups, and governmental actors often create conflicts, especially when balancing agricultural and environmental priorities.</li> <li>▶ <b>Unwillingness to repurpose productive land:</b> Landowners and farmers resist converting agricultural land to ecological uses due to concerns over income loss and land-use efficiency.</li> <li>▶ <b>Distrust and disconnect between government officials and farmers:</b> A longstanding mistrust has developed between governmental bodies and farmers, exacerbated by policies that do not align with local priorities or realities.</li> <li>▶ <b>Complication when engaging diverse stakeholders:</b> Engaging a wide range of stakeholders, particularly in regions where agricultural and environmental interests clash, remains a challenge for policy designers.</li> </ul>	Prager (2015), Hafner & Piorr (2021), Glasbergen (2000), Roebeling et al. (2023)
Farmers - Related Barriers	<ul style="list-style-type: none"> <li>▶ <b>Farmers' opposition and defiance:</b> Farmers often oppose policy measures that threaten their livelihoods or do not align with their immediate interests, such as income support mechanisms or ecological restrictions.</li> <li>▶ <b>Increased production costs:</b> Ecological measures often come with higher costs for farmers, such as the implementation of sustainable farming practices or environmental management strategies, which may not be compensated adequately.</li> <li>▶ <b>Market competitiveness:</b> Farmers face increased competition in the market, and integrating ecological measures can sometimes lead to a loss of market competitiveness, especially if these measures increase production costs.</li> <li>▶ <b>Missed opportunities:</b> Farmers may miss out on market opportunities due to the constraints imposed by ecological policies, such as limits on land use or crop diversity.</li> <li>▶ <b>Difficulty reconciling ecological requirements with economic interests:</b> Farmers face challenges in balancing the economic viability of their operations with the ecological demands of policies, leading to lower participation in environmental schemes.</li> <li>▶ <b>Lack of available land:</b> The shortage of land suitable for both agricultural use and ecological purposes exacerbates tensions between competing interests, particularly in densely populated regions.</li> </ul>	Cunha & Swinbank (2011), Hart (2015), van der Pol (2022), Roebeling et al. (2023)
Administration and Governance	<ul style="list-style-type: none"> <li>▶ <b>Administrative burden and bureaucratic complexity:</b> The complexity of policy implementation, with multiple actors and layers of bureaucracy, slows down the process and creates inefficiencies.</li> <li>▶ <b>Lack of standardised monitoring system:</b> Without a unified system to monitor and assess the effectiveness of policies, it becomes difficult to gauge success and make necessary adjustments.</li> <li>▶ <b>Gap between short-term political priorities and long-term conservation objectives:</b> Political cycles, focused on short-term goals, often conflict with the long-term nature of conservation and environmental objectives.</li> <li>▶ <b>Insufficient regulatory certainty:</b> Unclear or changing regulations, especially around compliance with environmental standards (e.g., PAS, Natura 2000), hinder the effectiveness of policy frameworks and cause confusion for</li> </ul>	Verwoerd et al. (2017), van Zeijts et al. (2024), Buckwell et al. (2015)

	<p>stakeholders.</p> <ul style="list-style-type: none"> <li>▶ <b>Limited scope of impact:</b> Many environmental policies, such as CAP “greening measures,” have limited regional impact and fail to address local ecological needs, which diminishes their overall effectiveness.</li> <li>▶ <b>Policy loopholes:</b> Policy loopholes, such as exemptions or flexible criteria, allow some farmers to avoid meaningful participation in environmental programs, undermining the overall goals of these policies.</li> <li>▶ <b>Unclear environmental benefits:</b> The environmental benefits of some policies, like <i>Eco-Schemes</i> or greening measures, are often not clear enough to demonstrate their effectiveness in enhancing ecological outcomes.</li> </ul>	
<b>Budget Constraints and Costs</b>	<ul style="list-style-type: none"> <li>▶ <b>Budgetary constraints:</b> Limited funding allocations for environmental projects often result in underfunded initiatives, leading to inefficiencies and incomplete implementation.</li> <li>▶ <b>Funding gaps:</b> Several projects, such as those under the <i>Natuurpact</i>, face gaps in funding, especially for long-term maintenance, which creates uncertainty for stakeholders.</li> <li>▶ <b>Lack of sufficient funding:</b> Insufficient financial resources, both from governmental sources and private investment, impede the ability to implement large-scale environmental initiatives.</li> <li>▶ <b>Lack of adaptability and local engagement:</b> Centralized funding mechanisms often lack the flexibility to address local needs, leading to delays and inadequate engagement of regional stakeholders, further hampering effective policy delivery.</li> </ul>	Roebeling et al. (2023), van Zeijts et al. (2024), Boonstra et al. (2021)
<b>Struggle for Institutional Support</b>	<ul style="list-style-type: none"> <li>▶ <b>Inadequately administering regulatory frameworks and monitoring:</b> Regulatory frameworks are often too rigid or insufficiently responsive to the needs of environmental cooperatives, leading to inefficient management and oversight of their activities.</li> <li>▶ <b>Lack of cohesion and communication among cooperatives:</b> ECs struggle to communicate effectively among themselves, which hampers collaboration and prevents the development of cohesive strategies for achieving environmental goals.</li> <li>▶ <b>Legitimacy challenges:</b> The role of ECs as governance bodies is often questioned, with challenges related to their recognition and acceptance within formal policy frameworks.</li> </ul>	Renting & van der Ploeg (2001), Boonstra et al. (2021)
<b>Voluntary Nature of Cooperative Participation</b>	<ul style="list-style-type: none"> <li>▶ <b>Voluntary participation:</b> Since participation in ECs is voluntary, this can lead to inconsistent engagement and varying levels of commitment from members, impacting the overall success and cohesion of the cooperatives.</li> <li>▶ <b>Disconnect between different ECs and lack of network association:</b> The absence of a structured network or strong ties between different ECs results in a fragmented approach, making it difficult to scale up or advocate for shared goals effectively.</li> <li>▶ <b>Emphasis on societal goals beyond farmers’ goals:</b> ECs are often motivated by broader societal goals that may not always align with the economic interests of farmers, leading to tensions and lack of active participation from members.</li> <li>▶ <b>Lack of identifiable leaders:</b> The lack of clear leadership in ECs makes decision-making and membership coordination more difficult, preventing the organizations from scaling or addressing challenges efficiently.</li> </ul>	Franks (2008), Renting & van der Ploeg (2001)

### 4.1.2 Success Factors

The literature results reveal that the success of ECs is deeply rooted in their ability to mobilise social capital, develop farmers' knowledge, and engage in place-based governance. *Table 4.2.* provides an overview of the success factors extracted from the literature, arranged in four thematic categories: *Social Dynamics*, *Knowledge and Learning*, *Governance and Implementation* and *Institutional Mediation*. According to Renting & van der Ploeg (2001) and de Rooij (2005), strong social dynamics, including trust, shared values and stewardship ethic create a cohesive community committed to environmental preservation. Furthermore, these ECs are not only social structures but also learning environments, where farmers engage in peer education, field experimentation, and knowledge sharing with broader networks enabling them to innovate and potentially better adapt (de Rooij, 2005). ECs also serve as critical governance intermediaries, translating complex national policies into locally relevant actions enabling for the diffusion of conflict and improving implementation (de Rooij, 2005; Wiskerke et al., 2003). Finally, their evolving institutional positioning through entities like *BoerenNatuur* empowers them to bridge gaps between farmers and policymakers, helping to rebuild trust and streamline agri-environmental policy delivery (Runhaar et al., 2017; Alblas, 2020).

**Table 4.2.** Success Factors Identified by Literature Review Analysis

Thematic Category	Success Factors	Reference
Social Dynamics	<ul style="list-style-type: none"> <li>▶ <b>Mobilised social mechanisms of trust:</b> ECs build trust within farming communities, enabling strong participation and self-organization.</li> <li>▶ <b>"Renewed spirit" among farmers:</b> ECs have inspired enthusiasm for sustainable agriculture since the 1990s, increasing engagement.</li> <li>▶ <b>Shared social values:</b> Values such as "farming gently" promote cohesion and a sense of common purpose.</li> <li>▶ <b>Sense of cohesion:</b> ECs thrive on a shared commitment to sustainable practices and mutual support.</li> <li>▶ <b>Shared history of struggle:</b> Common past challenges have strengthened internal unity among EC members.</li> <li>▶ <b>Sense of stewardship:</b> Stewardship, e.g., "taking care of nature," is practiced at multiple scales and embedded in EC identity.</li> </ul>	Renting & van der Ploeg, (2001), de Rooij (2005),
Knowledge and Learning	<ul style="list-style-type: none"> <li>▶ <b>Sustained farmers engagement:</b> Engagement is maintained through farmer-centered activities like courses, excursions, and peer groups.</li> <li>▶ <b>Creating new knowledge and practice:</b> ECs drive innovation via farmer-led research projects and practical learning.</li> <li>▶ <b>Identifying new opportunities:</b> ECs help farmers discover pathways to sustainability and diversification.</li> <li>▶ <b>Broaden farmers' perspective:</b> Involvement in ECs expands farmers' awareness of ecological and political contexts.</li> <li>▶ <b>Improved understanding of influence:</b> Farmers gain insight into their roles within regional and national governance systems.</li> <li>▶ <b>Sharing knowledge among stakeholders:</b> ECs act as platforms for multi-level knowledge exchange between farmers, institutions, and researchers.</li> </ul>	de Rooij (2005)
Governance and Implementation	<ul style="list-style-type: none"> <li>▶ <b>Customising policy implementation:</b> ECs tailor broad national policy goals into actionable, context-specific practices.</li> <li>▶ <b>Bringing "conflict" to its original context:</b> ECs mediate policy tensions by translating them into regionally appropriate discussions and actions.</li> </ul>	de Rooij (2005), Wiskerke et al., (2003)

Institutional Mediation	<ul style="list-style-type: none"> <li>► <b>Network of association:</b> BoerenNatuur strengthens horizontal and vertical linkages between ECs and policy structures.</li> <li>► <b>Acting as regulatory intermediary:</b> ECs implement CAP and cAEEM policies, functioning as trusted, decentralised governance agents.</li> <li>► <b>Make up for distrust between agencies and farmers:</b> ECs mitigate tensions and build trust between grassroots and policy institutions.</li> </ul>	Wiskerke et al., (2003), Runhaar et al., (2016), Alblas, (2020), Renting & Ploeg, (2001)
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### 4.1.3 Environmental and Socio-Economic Contributions

The literature on the ECs highlights a range of promising environmental and socio-economic contributions, presented in *Table 4.3*. Some of these include the potential reduction in nitrogen emissions in line with ecological carrying capacities, maintaining high participation rates among members with regards to landscape management, and introduction of alternative farm management strategies that promote ecological sustainability (Renting & Ploeg, 2001; de Rooij, 2005). Socio-economic benefits are also equally noted, with some greatly amplified such as improve family incomes, increased potential for rural tourism, and lowered production costs (de Rooij, 2005; Van der Ploeg & Renting, 2003). Additional to those, some institutional mechanisms are mentioned in the literature, such as the reduced governmental burden when it comes to ecological monitoring with regards to cost-efficiency and policy alignment at the regional level.

However, critical examination of the literature reveals any of these contributions being framed as *potential* rather than *empirically verified* outcomes. Various papers analysed describe the impacts of ECs using rather suggestive language, such as “*indicating promise*” or “*demonstrating capacity*” without providing longitudinal data or comparative benchmark. For instance, a study by de Rooij (2005) discusses improved biodiversity and reduced input dependency, however, those outcomes are supported by anecdotal evidence or single-year case studies rather than systematic evaluation. When viewed through the lens of output legitimacy, this tendency raises concerns for the lack of demonstrable effectiveness in governance arrangements. Furthermore, these findings underscore the urgent need for robust empirical frameworks to evaluate ECs and *BoerenNatuur’s* actual environmental and socio-economic impacts.

**Table 4.3.** *Environmental and Socio-Economic Contributions Identified by the Literature Review Analysis*

Thematic Category	Contributions	References
Environmental Contributions	<ul style="list-style-type: none"> <li>▶ <b>Managing modernised farming:</b> ECs demonstrate capacity to align farming with environmental goals, such as reducing nitrogen loss more effectively than regional averages.</li> <li>▶ <b>Nitrogen reduction aligned with ecological carrying capacity:</b> Practices aim to align nitrogen use with the ecological carrying capacity of local environments.</li> <li>▶ <b>Sustained high participation rates:</b> ECs have sustained strong participation in landscape management and have successfully expanded their reach to new areas, improving scale and quality of conservation.</li> <li>▶ <b>Alternative farm management strategies:</b> ECs have introduced and supported alternative and farmer-led methods improving nitrogen use, manure quality, soil, and cattle feeding systems.</li> <li>▶ <b>Increased ecological sustainability and less dependency on external sources:</b> Initiatives by ECs have contributed to increased ecological resilience and reduced dependence on external agricultural inputs.</li> </ul>	Renting & Ploeg, (2001) de Rooij, (2005)
Socio-Economic Contributions	<ul style="list-style-type: none"> <li>▶ <b>Increased family income:</b> Participation in EC initiatives has contributed to measurable increases in family incomes within regions.</li> <li>▶ <b>Increased potential for rural tourism:</b> Improved the overall biodiversity in the area and increased the potential for rural tourism.</li> <li>▶ <b>Lowered production costs:</b> More efficient use of inputs, such as fertilisers, which leads to cost savings for farmer without negatively impacting production levels.</li> <li>▶ <b>Farm revenue diversification:</b> ECs have enabled the diversification of farm revenues, especially with respect to payment for nature and landscape management."</li> <li>▶ <b>Articulation of conservation payment schemes:</b> ECs play a role in the articulation of brand-new conservation payment schemes, such as for the footpaths, management of field margins, public roads and nature reserves.</li> <li>▶ <b>Reduced bureaucratic transaction costs:</b> ECs facilitate trust and cooperation between farmers and regulatory agency, which helps reduced bureaucratic burdens and improved efficiency in policy implementation.</li> <li>▶ <b>Recognition of cooperative action:</b> The current institutionalisation of ECs through financial schemes reflects their increasing institutional legitimacy and policy relevance.</li> <li>▶ <b>Enhancing local social and natural capital:</b> Long-term cooperative effort to engages local communities has enhanced the local resource base of social and natural capital.</li> <li>▶ <b>Enabling new rural development activities:</b> ECs have enabled individual farms to collectively access new development opportunities which otherwise would not be able to be undertaken independently.</li> <li>▶ <b>Reduction of government monitoring burden:</b> Reduced control cost is observed for state activity, reducing the monitoring burden of the government."</li> <li>▶ <b>Decentralisation of evaluation among cooperatives:</b> By acting as regulatory intermediaries, ECs contribute to a more locally grounded and flexible evaluation process.</li> </ul>	de Rooij, (2005); Van der Ploeg & Renting (2003); Renting & van der Ploeg (2001); Runhaar et al. (2017); Alblas (2020); Franks & McGloin (2007)



## 4.2 Phase II: Comparative Empirical Analysis

This section presents the result of the comparative analysis between the findings from the literature review and the empirical data gathered through the semi-structured interviews. The aim of this section is to examine the extent to which theoretical assumptions hold in practice, identify areas of alignment and divergence, and discover new empirical insights. Overall, the analysis is structured around the major analytical categories of *challenges, success factors and environmental and socio-economic contributions*, providing a deep understanding of how BoerenNatuur operates within governance and institutional context.

### 4.2.1. Challenges

Firstly, this section presents the key challenges identified through stakeholder interviews and compares them with those outlined in the existing literature (see *Table 4.1*). The section is structured around the thematic categories derived from *Section 4.1.1*, followed by analysis. Finally, *Figure 4.1* provides an overview of the identified in the literature challenges, compared with the empirically based findings.

#### I. Stakeholder Coordination and Engagement

##### Disconnect between Policy Makers and On-Field Demands

The empirical findings confirm that centralised governance lacks farm-level understanding, which leads a result to conflicting policies (Prager, 2015; Hafner & Piorr, 2021). For instance, P12 notes: *"[...] the government doesn't have enough knowledge about how policies interact really on a firm level with the farm management and that's why we have policies that are sometimes conflicting or very unclear, way too complex. The farmers can't understand it anymore."* This aligns with critiques of CAP's failure to balance national policies with regional needs (Glasbergen, 2000). Beyond governance inefficiencies outlined by Roebeling et al. (2023), the empirical findings highlight flawed subsidy schemes, with the interviewees stressing that the rigid, one-size-fits-all subsidies fail diverse farms. P12 explains: *"[...] you need to have subsidy schemes that are more specialised or like the design of subsidy schemes should be tailored towards specific farming types."* While the literature explores the rigidity aspect (Limbach, 2023), its direct impact on farmers' access to support remain largely underexplored.

#### II. Farmer's Related Barriers

##### Economic Constraints and Market Pressures

A major recurring challenge is that farmers in the Netherlands struggle with the financial viability of environmental schemes. As P1 states: *"[...] one of the discussions is the level of payments, and that's of course an economic basis. Farmers do want to make it sometimes cost them money now to join."* This statement reinforced research on environmental measures being seen as economic trade-offs (Hart, 2015). Similarly, P2 highlights the financial burdens: *"The world is*



*changing, but our dairy farming in Holland is not capable of changing in the same time [...] a lot of farmers would like to change, but they have of course a loan at the bank, they had big buildings, they had investments and they have to make money otherwise they will have to end the farm.”* Market forces further limit nature-inclusive efforts, with P12 noting: *“[...] consumers don’t want to pay enough for our food. So, the food prices are too low. We are still negotiating and trading with countries that have lower standards [...]”* P2 further adds: *“[...] we are asked to maybe produce a little bit less for the same quality, hopefully for the higher price.”* These findings align with van der Pol (2022) on the tensions between ecological goals and economic competitiveness.

### **Regulatory Complexity and Lack of “Freedom” in Policy Implementation**

According to Roebeling et al. (2023), rigid policies create resistance among farmers, which is further highlighted by the empirical findings, with P2 noting: *“[...] there are a lot of rules, which are not understandable for farmers, so they don’t have the feeling that will do a good thing if they change.”* P1 further adds: *“[...] the old system which is the system of CAP [...] you have much more trust within that system, the old system that you have in the new one. The new one, was built upon money, not on trust, on ideas.”* Farmers also lack autonomy in policy implementation, with P2 explaining: *“[...] governmental rules are sometimes having bigger impacts on the willingness of farmers to do something [...] And I think the social aspect of that is quite big if a farmer is willing to change, then he should have some kind of freedom to implement rules from the government at his farm. We in Holland, we call that “draag vlak” and that’s the thing you should try to achieve that. It’s not a treat to change, it the opportunity to change.”* P2 further stresses the challenge of rapid transitions: *“[...] you can’t expect from someone who has done something for 20-25 years, 30 years, 40 years [...] to change in one or two years.”* This aligns with Cuhna & Swinbank (2011) and Hart (2015) on farmers’ reluctance amid abrupt policy shifts.

### **Unvalidated assumptions and new findings**

Overall, despite the empirical findings largely validating the literature on economic constraints, regulatory complexity and the importance of communication strategies, they miss on confirming certain aspects. While studies emphasize cultural and identity-based resistance to environmental measures, the interviews primarily highlight economic and policy barriers, with a minor mention of generational traditions. Additionally, while existing literature suggests that well-designed incentives drive participation, the empirical findings focus mostly on financial inadequacy and frustration with regulations, implying that current incentives may be less effective in real-life practice.

## **III. Administration and Governance**

### **Fragmented Monitoring and Policy Rigidity**

Both the academic literature and the empirical findings highlight the policy rigidity when it comes to monitoring. National and provincial focus efforts narrowly on species listed under the *Birds and Habitat Directive*, overlooking broader ecological benefits, with P12 noting: *“[...] So it’s only the Birds and Habitats Directive, those species that are [...] being monitored on a national and provincial level. So, it’s only a limited list.”* The limited scope creates gaps in impact assessment and greatly reduces the effectiveness of agri-environmental schemes. Moreover, measuring

ecological quality remains a challenge, with P12 explaining: *"So we do know the quantity of what they contract, but the quality we don't really measure well because that's also harder to measure. And the impact we really have in terms of reaching the goals, that's very hard to determine."* Furthermore, P13 adds that landscape-level changes take time, noting: *"[...] counting species shows what you achieve [...] But ecological development, that goes very slowly."* These findings align with critique of inadequate long-term biodiversity monitoring (Runhaar et al., 2016).

### Short-term Policy Cycles vs Long-term Environmental Cooperative Objectives

Academic literature highlights how short-CAP policy cycles create uncertainty, hindering long-term planning for subsidy beneficiaries. The empirical findings strongly support this, with multiple respondents emphasizing the disruptive nature of frequent policy changes. For instance, P3 states: *"[...] every seven years it changes [...] we can only make contract for 6-7 years [...] because we don't get budget more than 6-7 years."* Similarly, P8 adds: *"[...] national collectors work this way, and it's related to the European CAP, which also works in 6-year periods."* Such instability forces continuous adjustments, making it very difficult for farmers to maintain consistency. P10 highlights the need for a long-term security, stating: *"[...] if farmers really want to change their business, then 6 years is too short [...] especially in meadow bird management, I think it could be much better with much longer contracts. So, you really achieve less of your goals than you would like."* These findings align with *BoerenNatuur* (2022), which stresses the importance of policy continuity.

### Administrative Burden, Excessive Bureaucracy and Policy Fragmentation

Major focus of the academic literature is how excessive bureaucracy hampers environmental governance, creating inefficiencies and frustration (Runhaar et al., 2017). The empirical findings reinforce this statement, particularly regarding double-monitoring efforts. P3 explains: *"[...] they must check the collective, but we all have this certificate in which they also do their own checks. So that's sort of a double-checking system [...]".* The implication of such redundancy is an increased administrative burden without necessarily improving outcomes. Additionally, complex contracts within the collectives further exacerbate inefficiencies, with P8 noting: *"It made it more complex, and it made it more complicated, and more bureaucracy and I doubt if the results are better."* P12 further highlights some regulatory overalls between governance levels, stating: *"[...] in Holland the responsibility for nature policies [...] is also at the province or at the provincial level, because they execute the cAEEM. So they both have to do the national monitoring or provincial monitoring."* These empirical findings emphasize how fragmented policies create confusion and inefficiencies for the implementation process.

### Impact on Farmers' Motivation and Participation

With the presence of such bureaucratic inefficiencies, a great impact is being observed on the encouragement of farmer participation, as plenty feel overwhelmed by the level of documentation required. P8 explains: *"[...] the problem is more the motivation of farmers. This year we had a few farmers that wanted to stop, they want so far contracts because of bureaucracy, so they have good results. They thought they were going on a good way but all of bureaucracy makes fires and well, they say I do in my own way, both work with which the kind of objects."* Furthermore, a special focus is being put on the introduction of the new *Eco-Schemes*, which have increased the complexity of the administrative demands to farmers, resulting in a drop in

participation rates, with P11 noting: *"With the new Eco-Schemes we have seen a dip, because quite a few farmers have indeed dropped out. Providing data and is very difficult for farmers indeed to see what qualities under an Eco-Schemes, where can we link and where do we lose things?"*

### Accountability Structures and the Role of Farmers' Autonomy

In the literature, a great focus is being put in the role of cooperatives in decentralizing environmental governance, however, the empirical findings reveal ongoing tensions between top-down control mechanisms and bottom-up farmer autonomy. Despite *BoerenNatuur's* collective model, the major accountability structures remain extensively individualised, limiting the ability of cooperatives to tailor solutions to their unique regional and trans-regional environments. P12 describes: *"Even though they accept collective approaches, it is still also much about individual levels like control and accountability still have to be on an individual plot level."* P2 further expands on this argument, adding the notion of "control mechanism" in governing farmers' actions: *"And nowadays the government is very many rules are made-up to make it possible to control have to be in a control mechanism to control farmers."* The two respondents' leads align with P2's call for more outcome-based policy approaches, rather than rigid, process-based compliance structures: *"If the government gives a BoerenNatuur, for example the goals like we should have clean water, we have a clean air we need some good and so make your rules and try to achieve those goals".*

### Unvalidated Assumptions and New Findings

Most of the academic literature focuses on the critique of policy rigidity, short-term policy cycles, and the convoluted administrative environment. Most of these statements were validated, while some aspects were not fully supported by the empirical findings. For instance, while the academic literature often outlines the lack of farmer participation in governance processes, the respondents did not stress this as a major issue (Runhaar et al., 2017). The empirical findings themselves focused more on the administrative barriers rather than the participatory challenges. A second major discrepancy is that existing research suggests that decentralised governance structures should grant more flexibility to cooperatives, which findings suggest truer in theory than reality. The empirical findings indicate that bureaucratic oversight significantly limits *BoerenNatuur's* autonomy through constraint established by top-down control mechanisms.

## IV. Budget Constraints and Costs

### Insufficient Funding and Structural Gaps

A major theme among respondents is the emphasis on how budgetary shortfalls hinder the effective implementation of environmental policy products. P3 stresses how funding remains inadequate to meet ecological goals, leading to waiting lists for participation within the *BoerenNatuur* collective model: *"[...] if you want to involve more because we have waiting lists collected. More farmers want to be involved, but our budget is way too small."* P11 also argue the discrepancies between the supply of finding and the respective demand, which implies missed opportunities for farmer participation: *"[...] the supply and demand are a bit apart, so there are a lot of farmers who want to become participants and we don't have that much budget [...]"*. This

argument is also related with the existing literature on the *Deltaprogramma* and *Natuurpact*, which stresses how ambitious ecological investment often lacks sufficient financial support. Such funding bottlenecks are also experienced by *BoerenNatuur* and its sub-collectives, echoing the issues in local water and nature management programmes. P3 notes: *"Because the budget is now 120 million it used to be about 50-60 million growing up in the last years. And how are you going to divide this budget into 12 provinces?"*

### Disparities in Funding Allocation

A newly formed argument coming from the empirical findings is the notion of unequal distribution of funding across the provinces. According to P3, the distribution of funding is not necessarily based on ecological needs: *"[...] the justification for it should be economics for the distribution, it should be ecological. You should say the goal is [...] Meadow birds [...] then you have ecological what provinces has the most? And then you get the most budget. That should be logical. But that doesn't happen in that way."* The statement suggests that funding distribution does not always prioritise regions with greatest conservation needs. Instead, external factors influence allocation, leading to inefficiencies and regional inequalities.

### Farmers' Compensation Gaps and Lack of Financial Incentives

A major empirical finding rivals that current compensation schemes fail to provide sufficient financial incentives for farmers to properly engage in nature-inclusive programs. While the existing literature discusses cost-shifting onto the collectives, it often overlooks the lack of economic benefits beyond cost recovery (Boonstra et al., 2021; Limbach, 2023). For instance, P3 explains: *"[...] with the agrarisch natuur beheer only, you can't make a living out of it because it's only 'cone for costs'. So, you have some costs, and you get compensated for the cost."* Similarly, P2 adds: *"[...] it's not a part of my income, it's just compensating for the losses I have on that field."* P8 further questions the motivation behind participation: *"[...] the contracts we offer are compensation of the costs the farmers make. It's not an earning model [...] So if a farmer stops with our contracts and is just growing maize or potatoes or anything else, the income will be the same."* What this statement suggests is that since environmental schemes do not provide additional income, participation is purely voluntary. Farmers opting out suffer no financial loss, which implies monoculture seeming equally attractive. Despite reduced transaction costs through collective schemes (Falconer & Saunders, 2002; Mettepenningen et al., 2011), the lack of direct financial gain remains an overlooked barrier in existing research.

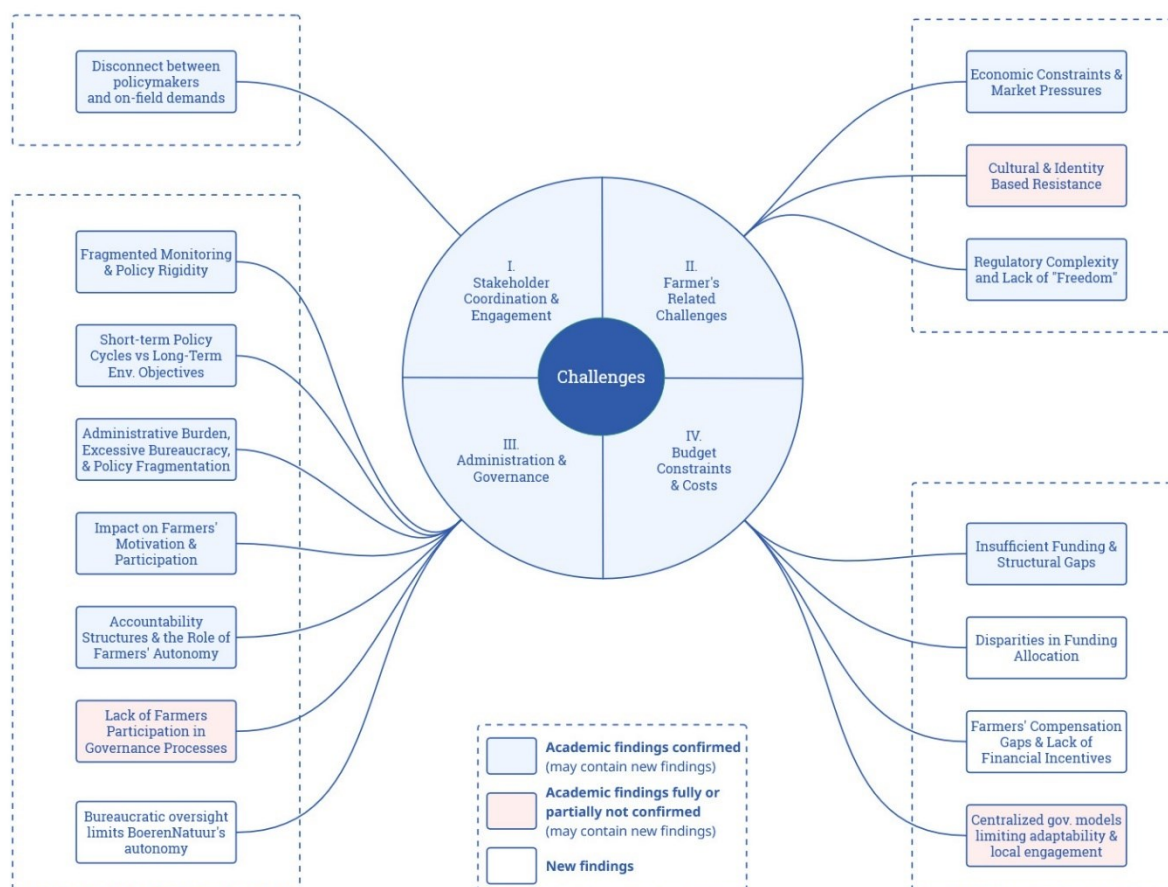
### Unvalidated Assumptions and New Findings

Despite confirming most of the assumptions made by the literature review, the argument that centralized governance models are limiting the adaptability and local engagement hasn't been fully invalidated (Prager, 2015; Hafner & Piorr, 2021). What is mainly argued in existing literature is that top-down funding structures primarily hinder effective policy translation at the regional and local level. On the contrary, the empirical findings from this study suggest that the main issue is not necessarily the aspect of centralisation itself, but rather the unpredictability and inequality in budget allocation across provinces. For instance, P3 notes: *"It's not equal. It's not equal at all, because, for example, Friesland gets 20 million, OK and for example Flevoland gets about 2 million."* Furthermore, the interviewees do not stress a lack of local engagement as a major barrier, but rather regional disparities in funding distribution and bureaucratic

inefficiencies as the primal contributors to the issue. What this suggests is that the core problem lies in how funding and subsidies are distributed and accessed rather than the centralised policies as such.

While the literature outlined “V. Struggling for Institutional Support” and “VI. Voluntary Nature and Sense of Cohesion” as relevant challenge categories, the empirical data did not provide sufficient or clear information to allow for meaningful comparison. References to institutional support were either too general or embedded within broader discussions, making it difficult to isolate them as distinct issues. Additionally, the voluntary nature of participation and its implication for cohesion were not explicitly addressed by interviewees, leaving their relevance uncertain in the context of this study.

**Figure 4.1** Overview of Literature Identified Challenges Compared with Empirically based Findings



**Note:** Thematic categories V. “Struggling for Institutional Support” and VI. “Voluntary Nature and Sense of Cohesion” are included in the literature review (see Table. 4.1) but could not be substantiated through the interviews due to limited or unclear empirical evidence.



## 4.2.2 Success Factors

While the previous section outlines the *key challenges* faced currently by ECs, this section shifts focus to the *success factors* supporting their effectiveness. This section draws from both the literature findings (see Section 4.1.1) and the empirical interview results, providing a comparative perspective (see Figure 4.2).

### Mobilised social mechanisms of trust

A central success factor outlined in the literature as a fundamental driver for ECs' effectiveness is the notion of *trust* (Renting & Ploeg, 2001). What de Rooij (2005), focuses on is the way ECs foster trust through long-term relationships, historical collaborations and shared social values. The notion of trust has occurred abundantly among the interviewees, taking a central stage in supporting the assertion that "trust" is fundamental success factor for ECs success. For instance, P1 explains: *"One of the most important ones is trusts. Trust between the farmers and the collectives, and trust between the collectives and the provinces, and in a way a trust between the ministry and, for example, BoerenNatuur."* A few respondents also stress the necessity of trust in executing tasks, with P3 stating: *"[...] That's why we say work together on the provincial level also to not get into the because we still, depending on his trust [...]"* Additionally, P1 elaborates on the uniqueness of the Dutch system in trusting the collective model, noting: *"That discussion about trust is the is most difficult one, because how much freedom can you give to farmers to obtain the goals and some in the Netherlands we have simply started within the system, which is of course a very strange idea."*

### Culture of association and history of cooperation

The empirical findings strongly validate the role of historical cooperation in fostering effective ECs, with adding some extra arguments to the existing literature (De Rooij, 2005), P3 highlights: *"[...] we have a culture out of association [...] In everything and for everything we have an association. That why you have the ANVs."* Similarly, P9 notes: *"[...] there's a long history of cooperatives in this country. So that helps for and there's starting ground and people in this country like to work together [...] in that sense cooperative solution is helping them."* These two statements suggest that shared traditions in cooperation provide stability and long-term commitment within *BoerenNatuur*. Another argument is that regional cultural differences also shape collective structures, with P1 explaining: *We don't want to subscribe exactly how they look like. [...] But you need the historical binding [...] that's why you have all the small ones in the South of Holland is because of the beliefs they different Protestant beliefs."* This highlights how historical and religious factors influence the cooperative organisations. Overall, the *BoerenNatuur*'s network benefits from this history of cooperative tradition, with P3 stating: *"[...] we already had this experience with ANVs, it is sort of a tradition, sort of professionalization starting in an individual system that doesn't work, so we know we have the collectives."* P8 links this to the concept of trust, stating: *"[...] The farmers nowadays they know they can trust it, that's important."* However, some contracting views suggest that the absence of historical cooperation can also drive innovation and ease the logistical processes, with P11 stating: *"[...] there was nothing yet. So, it is up to the farmers themselves to come up with something new, so in that sense it is almost a bit innovative in this province [...]"*. This suggest that while tradition supports stability, the lack of it can encourage greater adaptability.



### Bringing “conflict” to its original context & Customising policy implementation

Another major attention in the literature is being put on the significance of local and regional knowledge in adapting conservation efforts to specific landscape types (Wiskerke et al., 2003). Empirical findings support this argument with P3 noting: *“That’s where the collectives are really good, and they can really look at the measurement in the area and see what fits which farmers are there what can they do.”* P2 adds: *“[...] we have a contract with individual farmers, of course, because it’s their land. But we make plans for the complete region.”* This underscores the importance of local focus and integration of what the region really needs in conjunction with what the larger landscape restoration demands are. The empirical findings also stress the importance of landscape level approach for implementing regionally appropriate targets, with P12. noting: *“[...] we do work on a landscape level even though it’s not implemented well enough because it’s not so. But I do think you need a landscape level approach that’s essential to be able to effectively reach the goals.”*

### Creating new knowledge and practice & Sharing knowledge among stakeholders & Sustained farmers’ engagement

Another major feature and success factor both supported by the literature and empirical findings is that sustained farmers’ engagement is facilitated through knowledge-sharing and study groups (de Rooij, 2005). P3 elaborates on the provision of knowledge sharing and exchange as a major support mechanism to the collectives. P7 further expands: *“It helps us a lot on a very practical scale related to legislation in labour laws, etcetera. It helps us a lot in the execution because they are giving a lot of very interesting and useful webinars related to knowledge and developments.”* P13 expands on the so called “study groups” where farmers help each other: *“[...] in the Netherlands we have so-called study groups and those are groups of farmers [...]. Because what happens in study groups, farmers can learn from each other [...].”* The empirical findings stress the role of the structural learning environments in enhancing ECs effectiveness by fostering a culture of expertise and problem-solving. Beyond more technical and logistical knowledge-sharing mechanisms, empirical findings also include the notion of social learning, with farmers developing best practices through peer-to-peer interactions. What this presents is a more of a horizontal exchange of knowledge, which strengthens social cohesion within *BoerenNatuur* with a heavily reliance on cooperative insights rather than external authorities. Finally, the empirical findings underscore the lack of competition between cooperatives, which further enhances the collaborative learning dynamic, with P3 stating: *“There’s no competition between collectives because we have these borders, so you are all colleagues.”*

### “Renewed spirit” among farmers; improved understanding of influence; sense of stewardship; Identifying new opportunities & Broaden farmers’ perspective

Building up on the concept of knowledge creation, a topic explored in the literature is that through knowledge-sharing processes farmers have reported increased awareness of their influence or regional and national political processes and increased self-esteem for their wider influence. The empirical findings greatly support and expand these arguments, with the respondent expressing a strong sense of contribution to a larger cause - an assertion made by de Rooij (2005) that ECs sustain engagement by identifying new opportunities. P3 argues: *“[...] positive because you contribute. So, we’re not against something, but we are trying to be more not*

*about less. What can we do? The water quality is less. So, what we can so we have to do less about this, less. But we're talking about more. Can we do more?"* The statement highlights a proactive mindset focused on possibilities and expansion, reinforcing the idea that ECs cultivate a renewed spirit among farmers by fostering problem-solving attitude. The aspect of confident in *BoerenNatuur's* work is also evident, with *BoerenNatuur* being considered credible actor in political and policy discussion. For example, P7 stresses *BoerenNatuur's* capacity to operate on governmental level: *"I think they certainly have the capacity to do it, because I have a high esteem of the BoerenNatuur, and I see what they are doing."* P8 adds: *"I think there should be more confidence on the government that we are seriously doing the work we should do."* These statements not only validate de Rooij's (2005) claim that ECs improve farmers' understanding of their political influence but also suggest that despite their influence and knowledge, institutional recognition remains an ongoing challenge.

### Acting as regulatory intermediary & making up for distrust between agencies and farmers

A major empirical finding that also supports the literature is role of ECs as trusted intermediary. P3 describes this position: *"[...] we are acknowledged. We are friendly [...] we are sort of save Switzerland, because for native organizations we are safe, but also for farmers association we are safe. Also, for the politics, we are safe. [...] We are sort of safe haven also in the polarisation world. [...] We are sort of intermediary."* *BoerenNatuur* also greatly simplifies communication between farmers and regulatory bodies, with P1 explaining: *"[...] the water boards can discuss with the collective and the collective discusses with the farmers [...] before [...] we had to discuss with all the farmers themselves."* Such structure reduced bureaucratic inefficiencies while ensuring that farmers' voices are heard. *BoerenNatuur's* credibility further strengthens its intermediary role, with P8 explaining: *"[...] we have a very strong position in the area. We have employees that work with the farmers and go to the farm and discuss [...] what they can do."* In contrast, government agencies often lack such trust, as P8 explains: *"[...] there's a lot of confidence in our organization whether the government in general has a lot less of this [...]".* Finally, beyond mediation, *BoerenNatuur* also engages in lobbying, with P3 noting: *"[...] lobbying [...] we try to talk with them at the beginning of the policy process instead of in the end. But we also bring in our experiences from the start [...]"* Furthermore, internally the organisation fosters reliability among its members through collective coaching, as P2 emphasizes: *"[...] one or two people from our board are coach from a smaller collective [...] how to achieve a higher level [...]"* Additionally, P7 emphasises *BoerenNatuur's* accessibility as organisation: *"[...] they are very easy and approachable so that's very goods and they are also it's also their attitude towards all the collective [...]"*.

### Sense of cohesion & Shared social values

Shared social values and cohesion appear crucial to the success of *BoerenNatuur*, with the empirical findings extensively validating the literature. Respondents largely focus on the deep sense of community within the collectives, with P3 explaining: *"[...] the social thing. [...] I think that's the strongest of these whole collective systems because it gets people together in a positive way [...] farmers come together [...] at barbecues [...] and meetings [...] it's completely different way [...] it is binding together. It's a completely different goal. It's a positive goal."* Such shift from isolated problem-solving to collective action strengthens cooperation. P12 stresses: *"[...] they (collectives) share knowledge and they gain more knowledge because of being a collective. That*

*is the essence of why what we do can have a lot more impact [...]".* A key theme in the empirical findings is the social control and group pressure. Interviewees stress that mutual accountability within ECs is more effective than external oversight, with P2 explaining: *"[...] the social control is much more effective than controlling by an agency who's coming once in a while. There is a lot of "drag vlak" on the on the farmers."* Finally, the ECs foster social responsibility, countering the mainstream individualistic approach, with P11 noting: *"[...] in society where you are just more important as an individual nowadays [...] the moment you have to come up [...] the collective responsibility that you have as a farmer in such a collective [...] something becomes personal and you have one point of contact, you just have more intention to carry it out."*

## Network of association

The literature highlights the role of strong "network of association" as a key success factor in aligning *BoerenNatuur* with policy goals. The empirical findings largely support this, with focusing on stakeholder engagement as fundamental. P8 explains: *"[...] we work together with the farmers organizations [...] and they are also represented in our boards [...] we have very close cooperation with [...] private landowners authorizations [...] They have farmers that rent their lands, but they are also a strong partner for us and to create this kind of a network it gives us a composition to get a lot of farmers involved."* P9 further reinforces the role of ECs in binding both internal and external connections, explaining: *"[...] this the social relationship between the members or is it the social relationship between the members and the outside local world. That's also and in that sense, they are delivering another service to their members."* What this suggests is that *BoerenNatuur's* farmers are not just part of the internal communication but also influence governance structures, amplifying their political and social reach. Another key finding is the role of peer-led knowledge exchange, which challenges traditional top-down knowledge transfer. According to P13, trust within local networks is crucial, noting: *"[...] you know your neighbours best and you know whether they are reliable."* Finally, *BoerenNatuur* played a role in the scaling up of nature inclusive practices, with P10 explaining: *"We have 10,000 ambassadors who are already working on their land to achieve the goals [...] we have never come up with a law or a rule precisely because it is so voluntary, we have a lot of enthusiasm among farmers."*

## Unvalidated Assumptions and New Findings

In addition to confirming the literature review findings, the empirical findings reveal some new success factors, and particularly the role of *BoerenNatuur's* central organising body. Through uniting the collectives, the organisation streamlines administration and maintains the ICT systems for farmers. P3 explains: *"[...] collectives use the ICT system to pay to the participants. This isn't probably known, but it's very important [...] we have one association BoerenNatuur combines them. And, we have the same ICT system, everybody uses the same system. That's very important for the success story."* Recognition at the regional, provincial and national levels further legitimises *BoerenNatuur*, by strengthening collaboration with governance bodies. P8 explains: *"[...] in our region and country the government and all organizations have very good cooperation with us. They ask us to take part in all kinds of processes and developments in the region [...]".* Another factor identified is the bottom-up, grassroots approach that *BoerenNatuur's* facilitating, which unlike top-down models encourages active participation. For instance, P1 notes: *"[...] the system is built upon developing the intrinsic motivation of the farm. You put the farmer in the position that he can recite himself how he wants that together with someone that*

helps him [...]. If it's simply a thing you must do because we as a government say so - we will never get the result. That was the old individual system [...].” Finally, P11 stress the voluntary participation as fundamental success factor, which ensures commitment beyond financial incentives: “[...] if you participate, then you do it because you really want [...] if an organization says, from now on you have to do it, because if that organization is gone or the policy is gone, then you go back to your old form [...]”. P10 fortifies this statement by stressing: “[...] more than 10,000 farmers are now voluntarily engaged in agricultural nature management [...] The money is necessary, but it is not the driver.” Overall, these empirical findings challenge the notion that compliance-based enforcement is the most effective approach, highlighting the power of community-driven, bottom-up action.

**Figure 4.2.** Success Factors Identified by the Literature Review Analysis and Confirmed by the Interview Results as well as Newly Identified Factors



### 4.2.3 Environmental and Socio-Economic Contributions

Following on the comparative analysis for challenges and success factors, the following sections focus on the comparison between literature and empirical findings with regards to environmental and socio-economic contributions.

#### 4.2.3.1 Environmental Contributions: Environmental Targets

An important clarification has been done by the empirical findings, of what are the exact targets of *BoerenNatuur*. P7 clarifies by noting that *BoerenNatuur*'s environmental goals align with biodiversity, landscape management, and nature-inclusive agriculture: *"Our goals are related to the development of biodiversity, meadow birds, hedges, etc. So, we are implementing the agricultural schemes [...] part of our main goal to develop a sustainable nature inclusive farming for members in our area. We are regionally bound and based. We are executing and implementing the agricultural sequester."* P3 further simplifies *BoerenNatuur*'s major objective: *"The aim is that the farmer is taking measurements in favour of nature conservation or landscape."* P12 further expands on the five major focus categories: *"[...] we have 5 primary goals which link to the sustainability and the health of our environment and those are climate, soil, water, landscape and biodiversity [...] In the cAECM we do also have soil and climate as a separate category, and we also execute management measures."*

At the local level, the different collectives tend to tailor their strategies to represent their regional conditions. For example, P11 highlights: *"we [...] identified the focus areas with the water boards. Where [...] could we really make a positive contribution with nature management and which packages are associated with this [...] And then we are going to do acquisition in those areas in a very targeted way [...]".* A key recent shift is the integration of multiple environmental objectives, with P2 explaining: *"Five years ago, I had a plan for my fertilizing, I had a plan for biodiversity, I had a plan for landscaping [...] in the last two years, you'll see that they come together."* Similarly, P11 adds: *"I want to do something for the farmland birds [...], about water management, the soil [...] also include those buffer strips [...]. So, you see that from working from a single task we are in any case putting more and more things together. So, we are integrating [...]. Our hectares have also grown enormously."* Ultimately, the empirical findings built up on a stronger understanding of *BoerenNatuur*'s mission, with P12 formulating it concisely: *"We want every farmer in Holland to be able to have income through nature, inclusive farming."*

#### 4.2.3.2 Environmental Contributions: Uncertainty in Measuring Impact

When it comes to the measurable environmental impacts of *BoerenNatuur*'s work, several structural issues occur undermining its ability to accurately quantify the ecological success of its collectives while interviewees express optimism for *BoerenNatuur*'s impacts, such as P2's assertion: *"We have quite good results [...] I think we really do."*, accurately assessing these outcomes remains a challenge. P8 stresses the importance of farmer collaboration: *"[...] we can get much better ecological results in working this way because we can much better anticipate the situation of the area, discuss it with farmers and then find the possible measures."* Despite this



confidence, however, the lack of precise measurement methods makes it difficult to determine *BoerenNatuur's* true ecological benefits.

### The limitations of output-based indicators

A key issue is the reliance on output-based indicators, which evaluate quantities rather than qualitative ecological results. P12 explains: *"[...] the CAP has slowly been moving, and it has changed its monitoring system to include indicators [...] but we are still very much checking on the output so only the quantity of what is achieved [...] impact is very hard to measure."* This system focuses heavily on metrics like *hectares* managed, rather than habitat quality, making it largely challenging to assess *BoerenNatuur's* true environmental impact.

### Challenges in subsidy distribution and misaligned incentives

Another major challenge is the subsidy distribution that creates disparities, disadvantaging regions without high populations of protected species, with P11 noting: *"Nationally, the budget was determined by the number of both birds that were in a province. [...] we get far too little [...] that can be traced back to the fact that there are just no meadow birds here."* Additionally, incentives for nature-inclusive farming have led some farmers to conservation as an economic opportunity rather than ecological necessity. P11 explain: *"The moment there is more budget, it also becomes more logical to really include it in your business operations. So, you're going to get more farmers who also see it as a product."* P1 also argues that for a broader, landscape-level impact: *"[...] within the Nature Restoration Act [...] we must work on a landscape level if we don't start with that or develop that, we won't obtain the goals within the nature restoration that either."*

### The need for an improved and comprehensive monitoring system

Another major obstacle is the fact that monitoring methods remain inadequate, with P12 stressing the need for improvement despite cost constraints. P10 further emphasizes funding limitations: *"[...] the result of agricultural nature management is disappointing [...] we only work with a very small part of the farmers and the hectares in the country [...] we are still too small because you cannot take enough farmers because we can't afford that, because the budget is gone. [...]".* Although there is an increase in the budget to 500 million, P12 remains sceptical: *"It's not going to be enough [...] if you want to execute an extensive monitoring including the quality, you will need more."* P12 further adds that current data collection relies on limited sample measures, noting: *"[...] it's impossible for the collectives to check everything all the time [...] you must do a sample and then, yes, they check the quality. But that's only a limited part of what we are doing."*

### External factors that influence ecological outcomes

Environmental contributions are also affected by a range of external factors beyond *BoerenNatuur's* control, with P8 explaining: *"There are influences of traffic, expanding cities, and all these things not directly connected to our work."* Additionally, CAP funding mechanisms by default prioritise individual plot management over collective measures, with P12 noting: *"Payments have to be on a plot level [...] the CAP in the basis is still not a landscape level approach [...] things are neglected because monitoring is a big issue because [...] you have to go to a farmer and check what's happening on the plot and then you get monitoring results."*



### Lack of strong focus on overarching targets and need for more comprehensive long-term goals

Another major development that has proved challenging over time, is that *BoerenNatuur's* original goals have become diluted. For instance, P1 points out: *"[...] the system is running now 8-9 years, but the original goals [...] many of them aren't there anymore. So, the original goals, they vanished a bit."* P12 stresses that the lack of clarity in the goals combined with external political and policy pressures further creates situation where measuring long-term ecological contributions becomes even more elusive: *"[...] I don't talk about environmental goals that much because I don't think it's clear enough."*

#### 4.2.3.3 *BoerenNatuur Environmental Targets: Future Prospects*

Despite the lack of sufficient monitoring, *BoerenNatuur's* growing recognition in nature management, the association is now exploring how the existing network of 40 collectives can be further leveraged to contribute to other pressing environmental issues. P3 observe: *"For 2-3 years ago, hardly anybody knew BoerenNatuur and what we're doing, but it has really changed [...]"* The increased visibility of *BoerenNatuur* political discussion stresses the growing recognition of the collective system's effectiveness, with a recent development highlighting the agricultural nature collectives. P3 explains: *"[...] if you want to do more with agrarisch natuur beheer, don't think of something new, use what we have because it's very effective it's already there, so make improve it, make it better."*

#### 4.2.3.4 *Socio-Economic Contributions*

The empirical findings confirm that ECs play a crucial role in managing modernised farming, increased participation rates, and facilitate farm revenue diversification. P12 states: *"We do also have in our year plan a lot of attention to how can we maintain knowledge, help collectives gain more knowledge. How can we spread knowledge that's also one of our big pillars."* Additionally, empirical findings support ECs to reduce transaction costs and administrative burden for farmers. P12 explains that while implementing cAECM measures incur some cost: *"[...] on the other hand, it's also efficient because you use less manure, you use less pesticides, et cetera. So that's less of a cost in a way."* This statement further confirms the literature assertion that ECs lower production costs while maintaining grass yield and ecological sustainability (Renting & Ploeg, 2001).

Additionally, economic contributions are also emphasized by the empirical findings, particularly in relation to cost reduction, alternative farm management strategies, and conservation payment schemes. As P10 points out: *"we provide knowledge to those farmers and we do provide them with that financial incentive, because it is necessary to take that step. There must be a fee. Farmers cannot do that for free, but it is not our main goal to ensure that those farmers get more money. Our main goal is that money is the means to ensure that those farmers can farm in a more nature-friendly way."* This argument supports the literature claim that ECs facilitate new conservation payment schemes, while remaining primarily ideologically driven rather than profit-oriented (Renting & Ploeg, 2001). However, a key challenge identified in the interviews is

the difficulty in quantifying socio-economic impacts, as P11 specify: “We don't measure it. I mean our main purpose, of course, is the biodiversity.” What this suggest is a gap in systematic evaluation despite ECs believed contributions to local economies and social cohesion (de Rooij, 2005). Additionally, P10 adds: “It must be well organized economically in order to be able to take ecological steps.” What this statement reinforces is the interconnectedness of economic viability and economic sustainability. Overall, the empirical findings emphasize the role of ECs as enablers of long-term socio-economic and ecological resilience rather than direct economic actors.

#### 4.2.3.5 Analysis

The comparison between the literature review and empirical interview findings reveals that while *BoerenNatuur* contributes meaningfully to environmental and socio-economic goals, the impact remains difficult to quantify. On the one hand, despite strong rhetorical alignment with environmental goals, significant challenges persist, such as the limitations of output-based indicators, inadequate monitoring systems, and the constraints of current CAP funding mechanisms. Furthermore, the findings suggest that *BoerenNatuur's* environmental objectives are largely fragmented, diluted by shifting policy demands and uneven regional implementation. On the other hand, while ECs are acknowledged for reducing transaction costs and supporting alternative income streams, there is an overall lack of systematic evaluation of these benefits. Furthermore, the findings suggest that while ECs are not primarily profit driven, their effectiveness as intermediaries hinges on balancing economic feasibility with ecological ambitions. Without a more rigorous framework for evaluating both environmental and socio-economic outcomes, *BoerenNatuur* risks falling short of its transformative potential.

### 4.3 Phase II: Exploratory Empirical Analysis

Building on the prior analysis of *challenges*, *success factors* and *environmental and socio-economic contribution*, this final step delves deeper into the prospective institutional development of *BoerenNatuur* by drawing on stakeholders' perspectives. This section focuses on the analysis of two pre-defined analytical categories, or *Pathways for Institutional Development* and *Enabling Conditions*, while introducing a set of newly emerging themes derived from the interviews, which are *Drivers*, *Considerations* and *Challenges* (see Figure 4.4).

#### 4.3.1 Pathways for Institutional Development

This section outlines several pathway designs for *BoerenNatuur's* potential institutional development, which have emerged from the stakeholder insights. These pathways reflect potential structural and functional directions that *BoerenNatuur* could pursue to enhance its governance role. Important specification is that these are not mutually exclusive and may unfold simultaneously or independently, depending on political, financial, and organisational conditions.

## *I. BoerenNatuur Taking Up the “Monitoring Function”*

Firstly, a major pathway in terms of further institutionalisation of cooperatives’ recognition of environmental contributions is better monitoring process, which requires a balanced approach between decentralised collective efforts and overarching national coordination. P1 argues the dual benefits of such a system, where both the collectives understand their activities well enough to identify necessary changes and there is a facilitation of discussion for best practices with other organisations. According to P1: “[...] *it supports working together with our other organisations and other people [...]*”, where such system creates a structure where shared decision-making allows for adjustments. P13 further reinforces the idea of regional strength when it comes to monitoring, advocating for collectives to lead their own monitoring processes while collaborating with *BoerenNatuur* and provincial authorities. P13 suggests that: “[...] *the monitoring that I think is a task for their own collective*”, with policy-level monitoring handled by the province and management-level monitoring executed by the collective-level. What this layered approach provides, according to P13, is an assurance that local expertise is utilised effectively while maintaining alignment with national objectives.

## *II. BoerenNatuur as “Demand” Organisation: Economic Perspective*

Through the economic lenses, an interesting discussion is raised by some respondents, who consider the *BoerenNatuur*’s function as “demand organisation”, addressing market failures where individual contracts between the government and the farmers are inefficient. P9 questions: “*So what is the market problem, why does the market not work? And do we need cooperatives?*” According to P9, cooperatives usually emerge when markets fail to organise economic activities efficiently, and in the case of *BoerenNatuur* challenge is coordination: “[...] *the government is not willing to have contracts with all these individual firms and it's easier to that they convince each other in an area to take part.*” Key issue is raised here by P9, who sees the process of further institutionalisation of *BoerenNatuur*’s a risk of cooperatives monitoring policy rather than acting as independent farmer-led organisation. P9 further warns: “*There's a big risk that the corporations are not organized on the normal constituency but mirror the policy.*” If the primal focus of *BoerenNatuur* becomes responding to government incentives than local needs, there is a risk of losing autonomy, with P9 explaining: “[...] *if your client wants it this way, you do it that way. Then, then this subsidiarity is not as big as it should be or could be [...]*”. To serve its purpose, *BoerenNatuur* needs to be embedded in the “*natural conditions and the social fabric of that region*”, ensuring that structure primarily reflects local priorities rather than merely implementing top-down policies.

Another argument from economic standpoint is raised by P9, who focuses on the responsibilities that *BoerenNatuur* takes with sustainability targets and the respective costs that come as a result. P9 explains: “[...] *they want to have money for that because they make a cost in their farms or in the area they do so.*” This financial burden justifies government support like what exist in other sectors, drawing parallels to the energy sector. According to P9, without these government and European backing, *BoerenNatuur* would struggle to compete against larger private entities, which acknowledges the concerns about scalability and governance. P9 explains the prospect of *BoerenNatuur* becoming more of a “federated cooperative” by explaining: “*if BoerenNatuur would be a Federated cooperative [...] there is this network, and I use*

*that and I provide them with money that would work.*" This model allows *BoerenNatuur* to function independently, while still benefiting from financial support. However, this form of formalisation comes with certain obligations, with P9 warning: *"It becomes more problematic for me, and it is normal that then the government says, well, that means that you get to this target in five years' time, and we monitor your target, and this is the paperwork or whatever."* What this statement implies is that while financial support is crucial, it brings bureaucratic requirements and performance monitoring, which is a major trade-off between autonomy and government oversight.

### **III. *BoerenNatuur* as "Legal" Cooperative Network Model**

Historically, the evolution of cooperatives has been shaped by legal consideration, and any further institutionalisation efforts need to account for these factors. P9 explains: *"[...] originally in the 19th century when the cooperative started, there were a lot of what we called cooperatives and now in the previous cooperative, but they used the association law, not the cooperative."* The reasoning for this discourse was the cost and complexity of forming legal cooperatives, which required notary fees and financial contributions, whereas associations provided much easier to manage and cheaper establishment. A key question that arises is nature of member obligations within such cooperative model, with P9 pointing out: *"[...] there are now a lot of them are now multinational. There they have a lot of discussions on what they call member loyalty."* What this entails is a form of exclusiveness when it comes to engaging in purchasing activities through the cooperative. Such a tension between commitment and flexibility raises critical questions for *BoerenNatuur's* legal framework. P5 comments on this juxtaposition: *"[...] just a network, you know, facilitating platform or something like that. Yeah, what may be necessary is that you want to be more cooperative. Just given more legal structure, solid legal structure."* The consequences of such intervention are strong legal standing with possible hierarchical structures and potential restrictions on farmers autonomy.

### **IV. *BoerenNatuur* as Execution Agency**

Another institutionalisation pathway that occurs from the literature is the prospect of *BoerenNatuur* take the role of execution agency, with P9 pointing out: *"It's something different for me if the government would say I need an execution agency to hand that to distribute money and I'm too lazy to make individual contracts to farmers, or I am too lazy to have environmental regulations."* What this statement suggests is relying solely on *BoerenNatuur* for executing governmental tasks could potentially undermine its bottom-up approach and shift its major function from farmer-driven initiative to a bureaucratic intermediary. Furthermore, P9 stresses the risk in this model of crowding out the intrinsic motivation among farmers, noting: *"[...] you are crowding out the cultural motivation or the self the bottom-up motivation."* The risk is also for farmers becoming more passive recipients of subsidies rather than active participants in landscape management, reducing their intrinsic commitment to nature-inclusiveness.

Becoming an execution agency suggests the dependence on single funding stream posing long-term risks, with P9 commenting: *"It can also flip over time and then I would be very critical if that that works."* The overreliance on a single governance contract jeopardises its stability in

the case of shifts in political priorities. Finally, the question of monopoly is being raised by the respondents, questioning what does too much influence mean? P9 raises this issue by noting: *"[...] if the government would make it only dependent on BoerenNatuur, I'd say have more options to do this. And do you give a private organization a monopoly?"* What this suggests is over-centralisation of environmental governance and inflexibility of management.

### 4.3.2 Enabling Conditions

Following on the various pathway designs from Section 4.3.1 this section focuses on the enabling conditions for the realisation of such developmental pathways. The section is guided by the *IPCC Enabling Conditions framework* and structures the analysis of the conditions into six pre-defined categories: *Multi-Level Governance*, *Institutional Capacity*, *Lifestyle and Behavioural Change*, *Technological Innovation*, *Policy Innovation* and *Finance*. Similar to the previous analysed category, these conditions are mutually exclusive and may unfold simultaneously or independently.

#### 1. Multi-Level Governance

##### Targets inclusion and synergy between targets

A major barrier identified in the empirical findings is the incoherence between the sustainability targets across different levels of governance, which calls for greater alignment for the process of further institutionalisation to occur. P3 stresses the complexity of integrating different environmental objectives, explaining: *"[...] it's always a challenge [...] because it's not automatically that if you take a measurement for climate, it's also a good measurement for nature conservation."* What this echoes is a need for greater policy coherence with regards to national targets setting, noted by P1: *"[...] that's one of the things that we of course have to change that for us, the ecological results are the most important ones. And then we can pay more."* What this calls for is a holistic approach to target-setting as an enabling condition for avoiding unintended negative interactions between environmental goals.

##### Catching the wave in the changing position of the collectives: from execution to more proactive involvement

While *BoerenNatuur* and its collectives have traditionally been viewed as executing agencies, their role has been shifting towards a more proactive governance model. P3 explains: *"[...] collectives were only 'uivoerings organisatie', we're just executing the work. But that's of course that's shifting much more to a more and more proactive if we want to position ourselves and if we sort of do proposition what we want think is good, sort of changing development over the last years."* This shift in increasing integration reflects a strengthening position of *BoerenNatuur's* role within multi-level governance and its role in the bridging between policy and practice.

## Better cooperation between cooperatives within the same province & Merging between cooperatives

Strengthening the cooperation among individual collectives within the provinces is a key enabling condition for streamlining formal governmental recognition. P3 suggest that collectives should consolidate at the provincial level, noting: *"[...] we're now sort of in a program that we're starting up on the provincial level [...] the collective should work together much more."* This argument implies that the development of stronger internal network would potentially facilitate knowledge exchange and improve coordination. Additionally, P2 explains the possibility of merging smaller cooperative into a bigger one, noting: *"I hope that they will work together and make maybe two or three collectives forming two new collectives to have a bigger amount of power and of money to achieve some things."*

## II. Institutional Capacity

### Individual cooperatives becoming more professional

A key enabling condition is the professionalisation of the individual collectives within *BoerenNatuur*. According to some respondents, there is an underlying tendency of hesitation among some stakeholders to take this step, fearing the challenges managing farmers and financial outcomes. Nevertheless, P2 stresses the recognition of the necessity for *"going up to"* a higher level of management and governance. What this involves according to P10 is expansion of the current scope of the collectives, ensuring that the collectives can handle *"more types of management"* and effectively coordinate agricultural nature management at scale. Furthermore, P10 emphasises the need for a more structured approach, where smaller collectives are encouraged to *"grow more to the level of the larger collective"*, building up a greater uniformity within across the network. Finally, P2 argues that the way to *"lift up all the collectives"* is through national regulations and governance frameworks which ensure that underperforming collectives are incentivised to learn from their fellow collectives.

### Strengthening leadership within individual cooperatives and *BoerenNatuur*

Developing and maintaining a strong leadership basis within *BoerenNatuur* the individual collectives is critical for ensuring strategic direction, effective decision-making and sense of cohesion and trust. For instance, P12 stresses that leadership in this context is deeply *"about people"*, noting: *"It's about people like certain people have the power, they are easily accepted because they have this spark, and they know what they talk about. They get easily accepted if they have difficult discussion or they are able to have difficult discussions and they are able to be so enthusiastic."* P12 further stresses that finding these people is a challenge as the quality of *"leadership"* is *"almost personal trait"*, making it difficult to formalise leadership development within organisation. P12 suggest one possible solution in establishing *"pool of professional people"*, defining it as: *"[...] pool of professional people like this who know what they're doing, who are accepted because they know what they're doing, who have the enthusiasm to, to spark people and to get them into action."*

Another argument is raised by P2, who stresses the connection between the focus on leadership and its direct ties to the intrinsic democratic function of *BoerenNatuur* and its



collectives. While collectives operate with a degree of self-governance, there is a recognised need for stronger mechanisms of influence and internal coordination. P2 further notes: “[...] *the board should have the power to make sure that they will change their collective.*” What this statement emphasises is the opinion the leadership must balance democratic participation with ability to drive change more effectively. This further relates to the challenge *BoerenNatuur* faces in steering the collectives while respecting their autonomy, with P2 highlighting the necessity of leaders who can motivate and influence rather than impose directives.

### Building up institutional trust while adding responsibility

The aspect of trust occurs in multiple places within the discussion of *BoerenNatuur*’s development and plenty of respondents consider it as a critical enabling condition for *BoerenNatuur*’s success. However, P1 stresses that “*trust isn’t without responsibility,*” explaining that while collectives and farmers are given autonomy, then a demonstrated commitment to shared objectives needs to be observed. What this assumes is that trust is not unconditional, and it is greatly reinforced when farmers and collectives: “[...] *developed together with us towards the goals we want to obtain. And as long as we have those discussions, and we try to help each other it makes it easier. (P1)*” This further goes with the implication of giving collectives more operational freedom, while knowing they can be trusted (P1). However, according to P2, trust alone is not enough and there must be a middle ground between autonomy and regulations. P2 expands further, stressing the necessity for controls and oversight, however, warning that excessive regulation can undermine farmer’s motivation and ability to take initiative: “*Of course you need control, but you need to have the power from farmers to achieve goals.*”

### Strengthening certification of collectives

Another enabling condition that is crucial for the enhancement of the legitimacy of the collectives is the reinforcement of the certification process in order to align with the increasing demands for professionalism. P1 highlights this necessity: “*And what is now being worked on [...] is to strengthen the certification of the collective [...] to be able to get subsidies, that they do need more ecological knowledge and other types of processes and that we can do from the government.*” What this argument suggests is that beyond administrative compliance, the process of certification standardises the operation across the different collectives as well as equips the collectives with the expertise necessary to contribute to the relevant environmental goals.

## III. Lifestyle and Behavioural Change

### Cultural change within the agricultural sector

Over the years a gradual cultural transformation within the agricultural sector has greatly supported the expansion of agri-environmental schemes, facilitating the process of acceptance. P1 highlights: “*When it started in 2016, most farmers were doing something about Agri environmental measures, they were looked upon as a bit strange people, and now it’s common that farmers want to join. So, the cultural change is also, of course, in this case important, but it takes time.*” This shift suggests that a cultural acceptance of *BoerenNatuur*’s larger intentions plays the role of key enabling condition.

## IV. Technological Innovation

### Increasing *BoerenNatuur*'s capacity

An important discussion is brought by some of the respondents, who see the expansion of *BoerenNatuur*'s capacity as essential in strengthening its role in agricultural nature management. For instance, P7 stresses that it orders to support the growing complexity of the internal operations: *"[...] we will need more knowledge and more colleagues on administration and controlling and responsibility, working structures, etc."* Additionally, P7 expands that effective communication also plays a critical role in increasing the outreach and engagement, noting: *"Even more communication [...] to tell what you were doing, but also to get more people involved, being farmers who want to participate being it local inhabitants to inform them what we are doing and why we're doing that."* A different argument is raised by P8 who warns that beyond administrative and communicative expansions, *BoerenNatuur* must focus on upscaling farmer participation: *"[...] we want to get more farmers involved. [...] We also have visions to have all farmers involved at the end of this time of the CAP so in 2028."* Structural professionalisation is another key enabler in this development, with P10 describing: *"I think that organizations can become more professional, they become larger and can therefore also acquire more knowledge. So, for example, hiring an ecologist full-time instead of asking for that advice every now and then, they can work more professionally and therefore deliver more quality. [...] because we can really involve much more farmers, more farmers can engage in agricultural nature management and that also improves the quality."*

## V. Policy Innovation

### Strengthening the position of *BoerenNatuur* and enhancing understanding of their role

A major challenge that occurs from the empirical findings is the lack of clear definition of *BoerenNatuur*'s function in the broader agricultural landscape. P1 highlights the importance of this, noting: *"[...] it's very important that they are clear in their role [...]".* Furthermore, P5 stresses that *BoerenNatuur*'s position must be strengthened to support policy expansion beyond agricultural nature management, integrating areas such as nitrate control, fertilization and water quality. Another crucial aspect of this process is clearly defining how *BoerenNatuur* sees itself as an organisation, with P5 raising an important distinction: *"[...] how do they see themselves as an organization? Is it a lobby organization or is it a service organ? So, lobby organisation is something that they, so they take the interest of farmers and nature organization together. And they promote their interests so that can be also interesting for their members. So, the Members then have something a reason to become a member of this, because the organization is lobbying for their interest. Or do they see themselves as only as a service organization of a platform connecting things together and just only coordinating without strongly interest representation so."* This argument raises a fundamental question about whether *BoerenNatuur* should actively advocate for its members or act as a coordinating platform. What this suggests is that the answer to this would shape its influence and legitimacy in policy discussions.

## VI. Finance

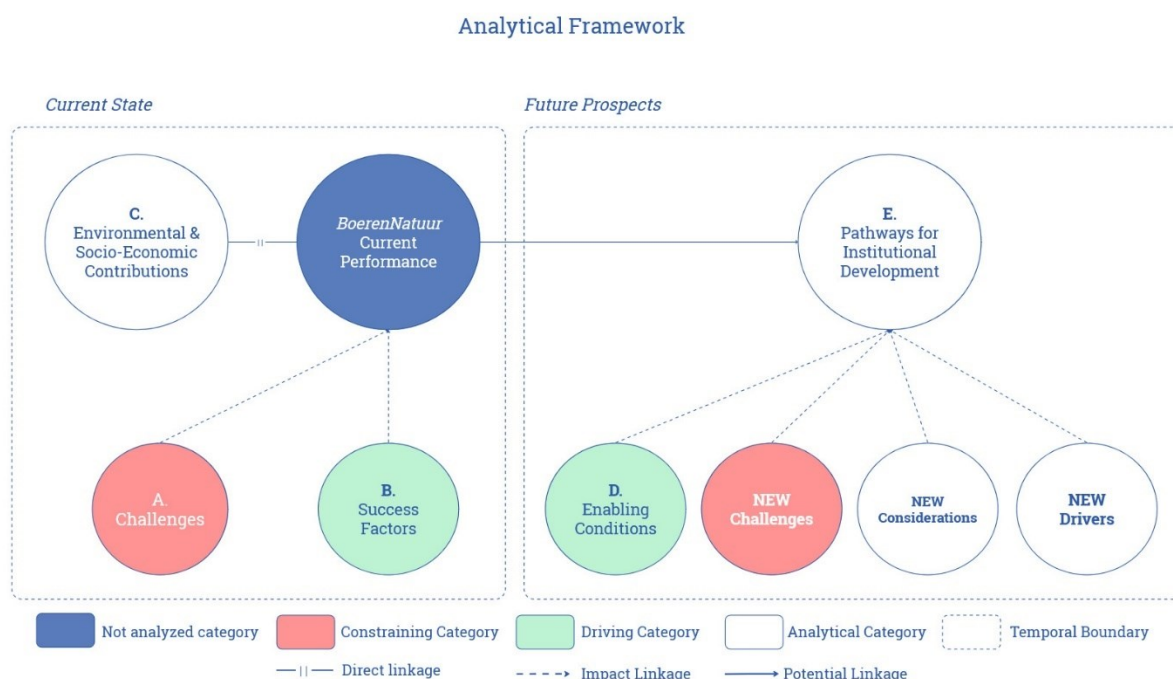
### Increased funding for higher quality monitoring

Adequate funding is essential enabling condition for achieving high-quality monitoring of nature-inclusive measures. P12 stresses that whole alternative monitoring approaches exist, that are usually costly: *"I do think it's possible to do it another way, but that that is costly and that's the thing you will notice if you also look into the research, there's a lot of research being done on Agri, environmental climate measures, which is our cAECM scheme in the CAP. And there's also a lot of research on monitoring systems and on indicators."* What that implies is that knowledge and methodology for better monitoring are available, but financial constraints hinder their practical implementation. Furthermore, in a *"performance-oriented country"* the ability to define and achieve quality goals is directly linked to financial resources. P12 emphasizes this statement, noting: *"We are absolutely trying to achieve improvement. But the budget is also limited, and our time is also limited [...] I think the biggest limitation in achieving quantifiable quality goals like in terms of quality, can we define what we achieve? Yeah, we need just a bigger budget because monitoring is expensive."* What this underscores is the fact that without increased funding, high quality monitoring cannot be effectively implemented or sustained.

### 4.3.3 Drivers, Considerations and Challenges of Institutional Development

Alongside *Pathways for Institutional Development* and *Enabling Conditions*, this section presents *Drivers, Considerations* and *Challenges* to further institutionalisation as a set of newly emergent categories (see *Figure 4.3*). These were inductively derived from the stakeholder interviews. The three additional categories contribute to the development and refinement of the analytical framework, providing a wider range of dynamic forces, strategic tensions, and practical constraints shaping potentially shaping *BoerenNatuur's* institutional trajectories. Derived from the interview results, *Drivers* refer to the underlying forces or motivations that propel the institutional development of *BoerenNatuur*. *Considerations* on the other hand refer to the strategic reflections and tensions that need to be accounted for when evaluating *BoerenNatuur's* prospective roles. Finally, *Challenges* encompass the constraints and barriers that may hinder potential institutionalisation. The three categories stress the presence of frictions and limitations that need to be navigated to ensure certain developments.

Figure 4.3 Updated Analytical Framework



#### 4.3.3.1 Drivers of Institutional Development of BoerenNatuur

##### Necessity for change in BoerenNatuur's wider function

Despite BoerenNatuur's crucial role in managing subsidy schemes and supporting the sub-collectives, the organisation still lacks formal recognition for its contributions. P12 states: "So even our collective approach has been recognised, but it's not enough yet [...] we don't have a formal, recognised role [...] that should be different [...]." This lack of recognition often excludes BoerenNatuur high-level policy discussions, limiting its influence with P12 explaining: "[...] we are overlooked [...] we are really the intermediaries between policy and practice. [...] we need a bit more formal recognition in the sense that everybody knows as it relates to something about the cAECM we need BoerenNatuur at the table [...] they know how to find us, but [...] we didn't we get invited and that should stop." What this indicates is that further institutionalisation could potentially enhance BoerenNatuur's legitimacy, influence and decision-making power, ensuring that the organisation is consistently involved in shaping agricultural and environmental policies.

##### Undergoing expansion in regional environmental governance

Another key driver of further institutionalisation is the undergoing transition towards a regional environmental governance model in the Netherlands, which could allow BoerenNatuur to oversee collective sustainability targets at the regional level rather than enforcing farm-by-farm compliance. P2 describes: "Why are we trying to achieve goals as individual farmers? [...] I can on my farm if my neighbour is making a mess of it the drinking water in the soil beneath us is of a worse quality. So why are we not trying to make goals in some kind of region or a neighbourhood?"

This “gebiedsaanpak” (area-based approach) encourages cooperation, where farmers take collective responsibility for environmental goals. P2 further adds: “[...] right now all the rules are based on control and the achieving goals for every individual farmer. If 15 farmers make agreements that they will achieve a goal named X. And if farmer #1 doesn't achieve that goal on his farm for a complete 100%, but only 90% and his neighbour is achieving 110% then it might be an easier and a cooperative way to achieve goals instead of controlling every individual farm.” P1 stresses that provincial engagement with collectives is already moving in this direction: “[...] provinces every year talk to the collectives about results and there is a possibility to steer on the results and on the quality of the management.” Finally, P9 highlights that decentralised governance is essential: “I think you must go back to the local societies because the Hague or Brussels cannot do that alone. [...] You have probably to work not only on efficiency level, but more on the cultural level.”

### Increasing funding and growing responsibility

Another key driver for further institutionalisation is *BoerenNatuur's* growing financial responsibility that comes as a result of its budget expanding from €50 million in 2016 to €120 million today and plans to triple in the coming decade. P1 highlights the pressure this place on the system, raising the need for a stronger governance structure to ensure effective subsidy allocation and accountability. P7 further underlines *BoerenNatuur's* critical role in managing these financial resources: “They [*BoerenNatuur*] are the key players also for the collectives in getting the €500 million. [...] It's their information, it's their knowledge, it's their practical support on organizational and procedural items, it's the knowledge of schemes on native preservation.” As *BoerenNatuur's* budget grows, a more structured governance model may become necessary to manage its expanding operational capacity, to ensure both financial oversight and strategic implementation.

### Better coordination of targets on national level

Another key driver of further institutionalisation is the need for improved coordination of environmental targets at the national level. P1 stresses the importance of this development: “[...] coordination on a national level has to grow so that we are clearer in the results and can steer better work.” The statement implies the necessity for a more structured and unified approach to goal setting and implementation, to ensure the collectives can align their efforts with national targets. Additionally, another crucial aspect of this coordination is the strengthening of scientific and ecological expertise within the collectives, with P1 noting that institutionalisation needs to include: “scientific support and that kind of things to the collectives and also more ecological knowledge within the collectives.”, which implies the necessity for coordination between the different collectives in order to gather better results.

### Necessity for structural change

A major driver for the further institutionalisation of *BoerenNatuur* is the necessity for structural change to account for the flexibility needed for effective governance. P1 highlights the complexity of implementing flexible payments within government-controlled budgets, noting: “[...] what the problem for a government is always, flexible payments are difficult, and it has to do with the way we control [...] budgets.” Another important driver is the necessity for harmonisation of existing policies and schemes to create a more coherent system. P8 explains: “What's most

*important is to have one system to combine this*” considering that the current policy structures create inefficiencies: *“And our system offer agricultural actions and sometimes they are not connected very well. And sometimes one can disturb the other or have negative effects on the other.”* The financial aspect also occurs in the empirical findings, with P12 expressing concern over the way increased funding may alter *BoerenNatuur*’s organisational dynamic, warning: *“[...] if we would have a more of a formal role if we would have more money and if we would be able to dedicate more money to a more extensive system of monitoring that would be beneficial I think, still, it would need different organisation, so then we would have to change quite differently [...]”*.

Meanwhile, P5 draws analogy to wage negotiations, emphasizing that cooperative structures can function effectively in economic decision-making, considering: *“they still do that on national level per company sector [...] labour unions and the and the companies sit together, and they agree on a salary increase [...]”*. This brings the implication that *BoerenNatuur* can develop into a more structured entity, while retaining its cooperative principles. Finally, P5 raises the caution that *BoerenNatuur*’s governance should not become loose accountable structure, noting that: *“[...] it's still working like this a little bit because the lobby groups at LTO, so the \*\*\* is still lobbying with data organizations and the government and other organizations for setting up regulation, they walk out, but they don't have any, you know, formal power.”* Overall, these empirical results underscore the importance of designing an institutionalisation process that enhances governance efficiency and safeguards *BoerenNatuur*’s participation and farmer-driven functional basis.

#### 4.3.3.2 Considerations for Institutional Development

##### Balancing structure and flexibility in *BoerenNatuur*’s organisational function

A key consideration in navigating the potential for further institutionalisation of *BoerenNatuur* is the balancing of financial responsibility with its grassroots informal identity. P1 stresses that while integrating the collectives into structure funding mechanisms could potentially improve investments coordination for nature-inclusive management, there is a major concern about the potential bureaucratic burden: *“You can give the collectives a formal role, but we can also make it possible [...] that we have a formal role [...] that they will be defined as the beneficiary of the Eco scheme”,* but then the question whether this would push the organisation towards *“[...] some type of administrative organisation, losing the direct contact with the farmers.”* Hence, institutionalisation in that sense must enroute that *BoerenNatuur* retains its farmer-led character, preventing an overly bureaucratic structure. Additionally, the empirical findings stress the need to translate funding into tangible improvements. Currently, accessing funds for agricultural and ecological enhancements remains difficult. P8 explains: *“[...] there are all kinds of processes and also sometimes funding to do things [...] there's a lot going on in processes and long-term views and communication strategies [...] but what we would really like to have money is to make more concrete investments.”*

##### Organisational structure that the government demands

Expanding the role *BoerenNatuur* in environmental governance further requires clarity on their organisation structure and alignment with governmental objectives and demands. P9 warns: *“[...] from a government point you think what type of organisation wants to have and how you*



*organise your policies.*" This raises the fundamental question: *"Do you think that a cooperative with its social character is a performance thing? Is it a good thing to search? Are you in the end only interested in the environmental effects? (P9)"* If the environmental impact is the sole priority, P9 explains: *"Then you go for the environmental effect, but then you could also do competitive auctions."* However, if social cohesion in rural areas is also valued, then alternative approaches like *"competitive bidding"* may be more suitable. P5 further highlights the complexity of further institutionalising the collectives, addressing political, legal, and economic aspects: *"So what is the goal of the cooperative? Is it a social or market organization?"* Additionally, with an increased EU CAP recognition, P5 stresses: *"It's called collaboration, there are financial instruments to set up collaborative and there's also like you need to have 75% of the farmers in the region to set up a cooperative (P5)"* The implementation still depends on national implementation.

### **"Perceptions" of formalisation**

The empirical findings outline a strong preference among respondents for maintaining *BoerenNatuur's* independence while recognising the need for greater structure and efficiency. For instance, P1 emphasizes that *BoerenNatuur* need to focus on supporting collectives rather than taking political stances: *"BoerenNatuur shouldn't take political statements [...] but should concentrate on supporting the implementation of the measures by the collectives. Otherwise, it they will get a part be become a part of the broad discussion on the on the future of the agriculture and that makes it more difficult for farmers to join [...]"* P1 further warns against turning *BoerenNatuur* into an administrative entity of the government, stating: *"[...] we don't want to make them an administration from the government."* Similarly, P7 stresses the importance of independence, explaining: *"BoerenNatuur is developing very well, and I do not think the sector related to these agricultural schemes needs an executive office for the government".* Instead, P7 envisions its role in addressing issues rather than executing policies: *"I do think they have a very strong role in addressing certain issues but addressing and implementing and executing are not the same, so preferably there would be an organisation that cover it all, but I don't think it is realistic to ask at the moment."*

Despite reservation about further institutionalisation, some interviewees acknowledge the challenge of coordinating multiple collectives, with P12 recognising that some authority may be needed: *"I don't think BoerenNatuur should become kind of authoritative structure [...] But sometimes I do feel it's needed [...]"* Additionally, P11 foresees a more structured *BoerenNatuur* with specialised roles to strengthen collective coordination while maintaining independence. This is further supported by P10 who underscores the importance of preserving *BoerenNatuur's* identity as a farmer-led organisation: *"[...] Our farmers should not get the feeling that we are actually a government organization, because then we will lose the trust of our farmers."* On the contrary, P10 suggests an alternative approach: *"[...] and we can monitor of course. [...] but we can outsource that to independent monitoring agencies."* The final statement highlights the necessity for delicate balance between structure and autonomy.

### **System of freedom with responsibility**

An interesting empirical observation is the frequency of the word *"freedom"* among stakeholders the importance of striking of balance between autonomy and accountability. What P1 describes this as is *"[...] system of freedom with responsibility [...]"*, where the collectives are given the space

to self-regulate while ensuring that they deliver measurable results. A major question is raised by the respondent of how much decision-making power can be entrusted to collectives while maintaining a necessary oversight. Additionally, P7 dives deeper into the need for regulatory flexibility, noting: *"We would love to have some more space in regulation, area regulation, area measurements. That would help us a lot. Being able to do pilots without severe legislation, without severe control mechanisms would help us."* What this implies is that by allowing experimentation within less rigid legislative frameworks, collectives under *BoerenNatuur* can explore with new approaches without being excessively constrained by bureaucracy.

### Inefficiency of a system of "enforced membership"

The concept of *enforced membership* occurs often among *BoerenNatuur*'s stakeholders, which presents a continuous issue of balancing the benefits of the collective organisation with concerns over individual rights and autonomy. P5 points out that: *"[...] if you read the regulations in the common agriculture policy, then there is also an option to talk from the government to jump in to enforce it a little bit."* An example given by P5 is the notable case of *"Het Landbouwschap"* which was a national agricultural organisation in the 1960s, which mandated farmers contributions for organisational purposes. P5 explains: *"They ask farmers to contribute to this landbouwschap for organizational purposes [...] this contribution, this membership was actually by law implemented on farmers [...]".* The extreme measures taken to ensure compliance led to widespread criticism, with P5 explaining: *"[...] even the police came to their property to enforce it and to even hold them hostage until they paid [...]".* Many saw it as *"[...] too far. A damage to individual rights [...]".* P5 further elaborates on the consequences of the backlash towards *Het Landbouwschap*: *"[...] if you can organize it also in such a way that it is also enforced in a way that will be good [...]".* By using the example of conservation effort for the *grutto* birds, P5 argues: *"[...] if one farmer is doing measurements and the other one isn't, it's not going to help [...] if you can organise that in a way that is also enforced, that would be good."* Overall, however, it is the strategy of achieving such a balance, that P5 finds: *"[...] the most important bottleneck in the story."*

### 4.3.3.3 Challenges of Institutional Development

With exploring the different potential of further institutionalisation of *BoerenNatuur* with regards to its contributions to environmental targets, a range of challenges have been identified derived from respondents' concerns about maintaining trust, variations in professionalisation among collectives, risks of bureaucratic, financial and legal constraints, and potential conflict of interest.

#### Maintaining trust and farmers' engagement

One of the core risks identified by the empirical findings is the potential loss of trust among farmers. Currently, *BoerenNatuur*'s success is largely attributed to its grassroots, farmer-led structure, which fosters voluntary participation throughout. P3 speculates that if the organisation becomes more institutionalised or even perceived as a government agency, this underlying trust could be undermined: *"[...] we lose our trust because we are based on trust of the farmers and they trust us because we're not the official government organization [...] that's because they don't trust government, farmers don't trust government. That's the baseline."* Similarly, P1 adds that: *"[...] farmers are willing to do more when it's their own organization that*

asks and not the government.” Finally, P12 reflects on the complexities of formal recognition, noting: “[...] your role changes [...] if you are given a formal role and formal recognition, it does change your position. And I don't know if that's always for the best [...]”.

### Lack of cohesion in the level of professionalization among the cooperatives

Another prominent challenge is the inconsistency in the levels of professionalization among the collectives within *BoerenNatuur*. While some collectives are highly developed and proactive in following the newest “waves” in nature-inclusive trends, other lack the necessary organisational structures and finances to sustain a better progress. P2 suggest: “[...] there are a lot of collectives in the Netherlands, which are not that professional, but they're just doing the things on agricultural and nature and no other things.” P1 further explores that “[...] some collectives that are up to any task you give them, but there are also some where the question is if they will survive the changes we now have in that policy.” The inconsistency in the capacity across collectives raises concerns among respondent about *BoerenNatuur*'s ability to operate as unified and more “formal” entity. P12 concludes: “[...] the difficulty still is [...] we do have 40 very different agricultural collectives. So, the question then is I think what kind of structure would be needed [...] to adequately steer those 40 agricultural collectives who are also very independent - like they do have their own separate organisations.”

### Potential conflict of interest

A certain level of upscaled institutionalisation could also contribute to conflict of interest particularly concerning *BoerenNatuur*'s role in subsidy distribution. P12 warns: “[...] the cAECM is a subsidy scheme, and the collectives are the receivers of a subsidy. And then it's hard to give an organisation that is linked to the receiver of a subsidy to a formal structure that decides about that subsidy.” This argument raises ethical concerns about whether *BoerenNatuur* can simultaneously act as both an advocate for collectives and a decision-making body for resource allocation.

### Structural limitations and of sufficient leverage

In its current form, *BoerenNatuur* is relatively small and lacks the leverage required to function effectively as a formal institution. P1 explains: “*BoerenNatuur* at this moment is too small. It doesn't have enough leverage to be able to steer [...]” This concern is similarly echoed by P12: “[...] we are kind of small. I don't know if we would be able to fill the formal shoes yet [...] Like we wouldn't even be able to if we get a formal role, it would be hard even to live up to it because then we also need to grow”. A more fundamental concern is being raised by P3, who expresses a concern over the larger implications of the larger nature-inclusive contributions, regarding the size of *BoerenNatuur*'s current efforts: “[...] there was a report, I think 1 ½ years ago that said, based on expert judgment that that you needed, I think about 700,000 hectares of agrarisch natuur landschapbeheer to not be here in order to get to reach these targets that are set. So now we're on 100,000 acres.”

### Risk of losing *BoerenNatuur*'s core identity

A key and repetitive concern among stakeholders is the situation in which *BoerenNatuur* becomes too large or institutionalised, then it may lose the essence of its cooperative model. P9 compares the risk to the trajectory of other known cooperatives, such as *Friesland Campina*,

which began as a farmer-driven initiative and evolved into corporate entity: “[...] originally you had all these small local cooperatives [...] and they stayed then as small local organizations, we need central purchasing or something on the world market. [...] It was the buying power which was the attractiveness for feed.” This sentiment is further elaborated by P5, who notes that: “[...] it’s very hard to let BoerenNatuur take up other tasks and goals as well, because I don’t think that you know the governing agencies are willing to do that because they don’t trust this kind of voluntary organizational will be able to do so.” Another argument raised by P9 is the predominant “social function of emancipation” that guides BoerenNatuur’s operations rather than solely the economic ground. Despite the predominant focus on economic features in the regular cooperative model, according to P9, when it comes to environmental cooperation the social aspect plays a bigger role.

### Legal structure ambiguities

The empirical findings touch upon the question of the legal framework governing BoerenNatuur, questioning why it remains uncertain and to what extent it complicates formalisation. P5 highlights this issue: “So the legal status of this that you’re in BoerenNatuur is still one of the most important hold-ups for making it into success.” Moreover, there is an ongoing debate over the question of whether BoerenNatuur should function as a cooperative in the legal sense or continue operating as an association. The lack of clear legal definition limits BoerenNatuur’s ability to expand and secure funding, P5 adds: “The legal status of this of and because of that they don’t have enough money to sustain themselves, so it is therefore also don’t hear much about them. So, the financial factor is also an issue that plays quite an important role.”

### Trade-offs in giving farmers more responsibility

A major concern raised by the empirical findings is the prospect of trade-offs that come as a result of giving farmers more responsibility in granting them autonomy in achieving sustainability targets. On the one, the empirical findings support the argument that such move will empower farmers to determine their own methods for achieving environmental targets, which allows for innovation and regional adaptation. P2 warns however, that such action requires high social motivation among farmers and does not account for those who may prioritise economic efficiency over broader environmental considerations: “[...] of course we have a certain amount of a colleague, farmers who would just go to reach their goal and don’t look around and are not hesitating that they might be causing problems on other areas [...]”. Additionally, P1 stresses the increase in political and financial pressures as a result of scaling up farmer-led governance, noting: “And already when you scale up from 100 to 20 million to almost to something like 400 million a year there will become tension on the system. Because farmers and much more are dependent on the role of the collective, if they will get some cap support [...]”. P1 further notes that maintaining the trust within the system is critical but fragile: “[...] if we lose the trust also between government and the collectives, then we probably lose the system.”

This challenge is further exacerbated by the increasing financial scale of BoerenNatuur’s budget. As P7 the higher funding will inevitably bring stricter oversight: “I think it will lead in this situation that there will be more control [...] whether we want it or not, if there are more controls or more in the picture, that will lead to a system in which we even better have to be responsible.” Finally, P5

warns that increased self-regulation among farmers could alter *BoerenNatuur*'s function resembling a quasi-governmental entity, making the line unclear between collective governance and formal state oversight: *"[...] if they agreed on certain nature standards or bird habitat regulations, how they implemented among each other, then it some farmers said but then we started to become our own government."*

### Lack of strong leadership

An interesting challenge underlined by the empirical findings lies in the leadership dynamics within the collectives and the fact that effectiveness of such organisations is often dependent on the individuals who occupy leadership roles. According to P2, the inconsistencies in leadership approaches can hinder progress. P12 further highlights how the effectiveness of *BoerenNatuur* is deeply tied to individuals. Even with a more institutionalised role, strong leadership is crucial in order to maintain cohesion and ensure that *BoerenNatuur* can function effectively. P12 stresses: *"[...] just getting formal recognition, that's not enough."*

### Strict regulatory and monitoring environment

Finally, the last major challenge that empirical findings identify is the disconnect between decision-making at the ministry level and the operational realities of decentralised collectives. P1 gives an example: *"[...] the ministry designed it, but it's decentralised to the provinces, the collectives themselves and when you steer from a province to a collective, it's very much more difficult to make changes within the collective structure you have then when you do that from the ministry."* Such decentralisation presents a dual reality by both providing flexibility while creating inefficiencies in decision-making and implementation. Another argument is raised by P5, who highlights the rigidity of the monitoring structures particularly concerning fertiliser and manure distribution, noting: *"[...] monitoring is very strictly done from a provincial level, so there is enormous control [...] it's so sensitive that they are not going to let it go to a voluntary organisation."* P13 further stresses the need for transparent monitoring to build trust between policymakers, *BoerenNatuur* and society, noting: *"[...] you have to convince politicians... society has to be convinced that farmers don't just do wrong things [...] but show it."* Finally, P10 stresses the major discrepancy between process process-oriented monitoring and actual environmental impact, which remains a fundamental challenge in enabling the long-term legitimacy of *BoerenNatuur* within governance structures: *"[...] if you have delivered quality of management, that does not immediately show that it has an effect."*

Please refer to **Figure 4.4**, which presents a synthesis of the analysis from Chapter 4.3.

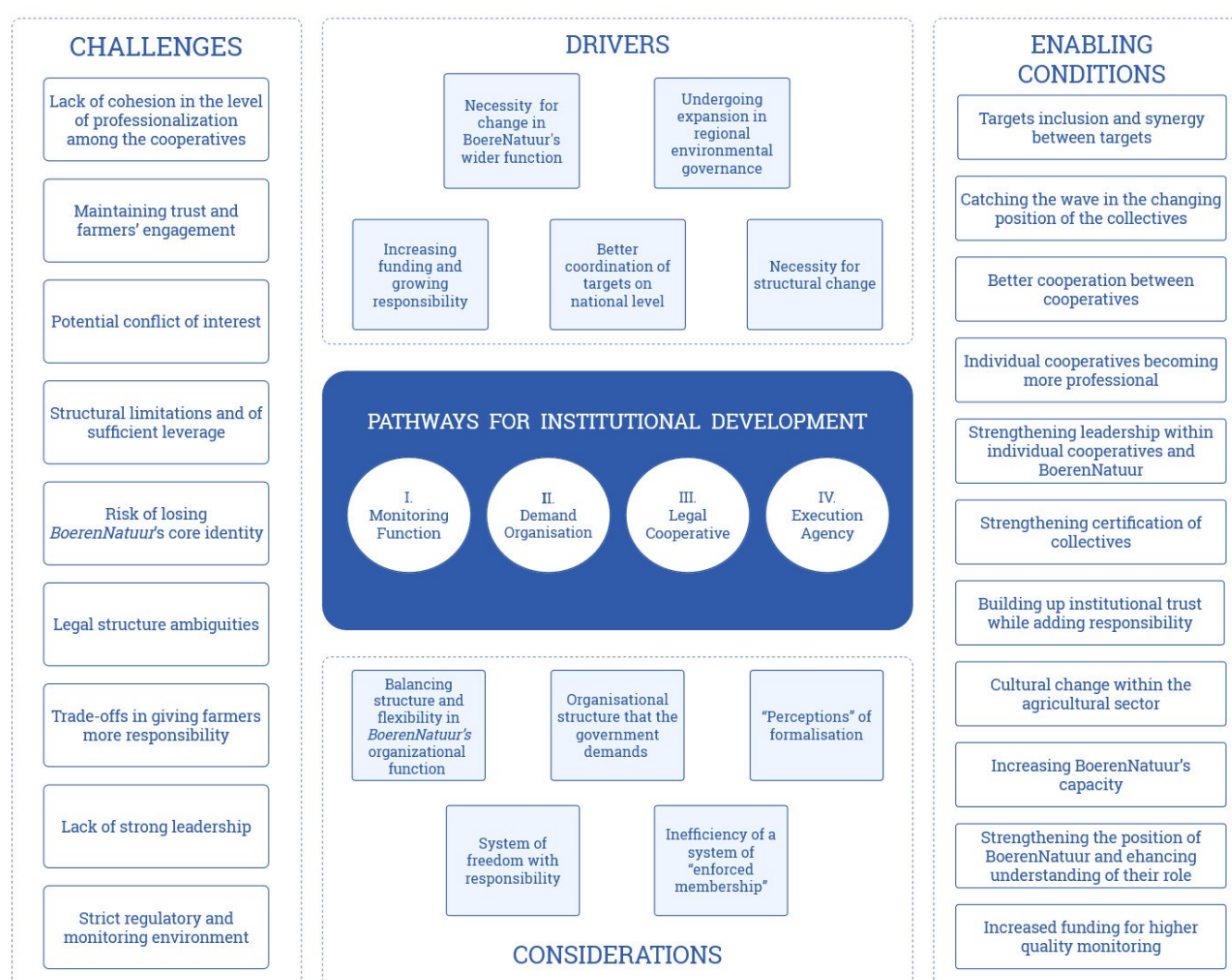
## 4.3.4 Analysis

The exploratory analysis in Section 4.3 shows that further institutional development pathways for *BoerenNatuur* are far from uniform and unidirectional. Stakeholder perspectives underscore a largely fragmented and often contradictory set of expectations, rather than focusing on a singular vision of what institutionalisation should entail. Some of the respondents focus on further institutionalisation as route towards greater policy influence, structural legitimacy, and access to a longer-term financial support. On the other hand, others caution against the



underlying bureaucratic risks of such processes, warning that greater regulatory involvement could undermine *BoerenNatuur's* bottom-up ethos. What these contradictions suggest is that further institutionalisation is not simply a matter of scaling-up, but a deeply contested process shaped by strategic discussion of trade-offs between authority, accountability and autonomy. Furthermore, this section highlights the multiplicity of possible roles, with each pathway carrying distinct implications for governance structure, farmer's agency and accountability mechanisms. The analysis further suggests that the outlined enabling conditions, and especially equitable financial structures and multi-level alignments, may prove critical to exploring the viability of the pathways.

**Figure 4.4** Formalisation pathways, drivers, formalisation challenges, considerations for formalisation and enabling conditions





## 5. DISCUSSION

This study set out to address this study's main-RQ: "*To what extent does BoerenNatuur contribute to wider-EU sustainability targets, and what potential pathways emerge for expanding its role within multi-level agri-environmental governance frameworks?*" The study findings expose a dual reality, in which while *BoerenNatuur* has proven effective in translating ecological policy into territorially embedded action, its institutional mandate remains largely ambiguous and its influence on policy design greatly limited. This contradiction also reflects a broader misalignment between the EU's rhetorical support for participatory governance and overall structural superiority of top-down agri-environmental policy frameworks (Barghusen et al., 2022; Alblas & van Zeven, 2023a). Despite the plethora of successes in fostering collective action and facilitating landscape-scale biodiversity management, *BoerenNatuur* remains institutionally underleveraged, with its function being primarily of an intermediary for subsidy implementation rather than co-governing entity within the environmental governance system.

Looking through the theoretical lens introduced earlier in this study, several interesting dynamics are taking place. For instance, polycentric governance places significant importance on trust, adaptability, and local engagement as enablers of effective collective action (Ostrom 1990; Ostrom, 2010). While *BoerenNatuur* embodies many of these characteristics, this study challenges the assumption that those factors are sufficient when structural power imbalances persist. The ECs increasing exposure to professionalisation pressures, such as administrative compliance and demand for measurable impact, reveal an underlying technocratisation that risks cancelling out the very foundations Ostrom identifies as central. As several participants noted, the more *BoerenNatuur* is pulled into formal systems, the more its bottom-up ethos is diluted, suggesting that polycentricity is not inherently protective or grassroots autonomy.

Additionally, another critical engagement should be made with the theoretical frameworks underlying governance transitions as such. Dominant paradigms in multi-level governance and transition management often assume a linear progression, where a successful niche innovation supposedly stabilise within formal institutional environments, from local experimentation to regime integration. However, the case of *BoerenNatuur* disrupts this narrative, revealing a form of governance that resists binary classification, with *BoerenNatuur* occupying a rather strategic periphery as an institutional space. Additionally, multi-level governance theory underscores the more inclusive and adaptive governance through the diffusion of authority across scales (Hooghe & Marks, 2003). However, *BoerenNatuur* reveals a case where there is an example of decentralisation without integration. In other words, while *BoerenNatuur* operates at multiple governance levels, its role is largely confined to execution and not decision-making, undermining the emancipatory potential attributed to multi-level governance in normative terms.

Ultimately, this study contributes to academic literature by reframing the role of ECs from a peripheral implementing entity, to a hybrid governance actors with the potential to transform collective agri-environmental governance from within. Despite the model's recognition among practitioners as a best practice, its institutional reality reveals significant structural constraints (European Commission, 2020). The study further shows how governance innovations must be

institutionally embedded in order to drive systemic change, and not simply operationally deployed. Rather than viewing further institutionalisation as a linear process of institutional maturation, this research underscores the importance of maintaining adaptive capacity, collective ownership, and epistemic diversity within upscaling strategies.

## 5.1 Implications

The results of this study carry important implications for both theory and practice in the field of collective agri-environmental governance. Firstly, for governance scholars, this research contributes to the emerging literature on hybrid and meso-level institutions. The study finds that *BoerenNatuur* functions neither as fully embedded regime actor nor as an isolated niche, but rather as an intermediary structure that translated EU environmental objectives into local actions. Furthermore, the results stress the importance of procedural and relational dimensions of legitimacy, such as trust and social accountability, which are often undervalued in policy evaluations focused primarily on outcomes. Secondly, for knowledge users, the study amplifies the need for alternative evaluation and monitoring frameworks that recognise the multifaceted nature of ECs' impact. A clear gap is present in traditional impact metrics to capture the cultural shifts, institutional innovations and relational work that are central to cooperative governance opening an opportunity for collaborative knowledge production between stakeholders to co-design monitoring systems that are locally grounded, ecologically robust and socially relevant. Finally, for policymakers, the study presents a supportive argument for embracing more pluralism in governance design. The results suggest that rather than viewing further institutionalisation as a one-way path to policy integration, institutions should accommodate various models of engagement to enable grassroot actors like *BoerenNatuur* to navigate between autonomy and alignment with local regime. Major implication of this is the plausible continuation of ECs as experimental spaces for public innovation that are informal but capable of driving more inclusive and context-sensitive forms of collective agri-environmental governance.

## 6. CONCLUSIONS

In conclusion, this study set out to critically assess the role of *BoerenNatuur* within collective agri-environmental governance, and specifically its capacity to contribute to wider-EU sustainability targets under evolving CAP frameworks. By combining literature review analysis with empirical analysis derived from semi-structured interviews, the study set out to uncover both the current contributions and operational dynamics of *BoerenNatuur* and the potential pathways for further institutionalisation as well as the enabling conditions for such undertakings. Overall, the central research question guiding this thesis was: “*To what extent does BoerenNatuur contribute to wider-EU sustainability targets, and what potential pathways emerge for expanding its role within multi-level agri-environmental governance frameworks?*”

This paper’s findings suggest that *BoerenNatuur* plays a valuable yet constrained role. *BoerenNatuur* contributes to wider EU sustainability objectives by facilitating landscape-level ecological coordination, fostering farmer engagement, and promoting biodiversity through habitat-based collective agri-environmental management. However, its contributions remain largely operational and with limited quantifiable impact due to a range of undermining factors, such as an incoherent monitoring system. The study also finds that *BoerenNatuur* faces significant structural challenges, such as short-term funding, administrative burden, fragmented governance landscapes, and institutional ambiguity. Simultaneously, a range of success factors play a crucial role in the *BoerenNatuur*’s overall functioning, such as mechanisms of trust and sense of stewardship. Furthermore, interview data suggest positive ecological contributions, particularly in biodiversity protection and spatial planning, as well as socio-economic benefits, for example, cost reductions and collaborative learning mechanisms. However, the absence of disaggregated, empirical impact data limits the ability to empirically validate these assumptions. Finally, stakeholders’ views revealed an ambivalent response to the question of further institutionalisation. While some participants supported the further institutionalisation to secure funding and influence, others stressed the risks of bureaucratisation and autonomy erosion. What this suggests is that such an undertaking is not a linear process, but a negotiated and contested trajectory, requiring context-sensitive governance design.

### 6.1 Limitations

While this study makes significant contributions to both academic literature and policy discourse surrounding ECs, several limitations need to be acknowledged.

#### Methodological Limitations

Firstly, the study’s focus is exclusively on the case of *BoerenNatuur* and its sub-collectives in the Netherlands, which largely limits the generalizability of findings across different national contexts. Despite *BoerenNatuur* offering an example of collective agri-environmental governance, the results may not be directly transferable to countries where agricultural systems, governance structures or cultural and political attitudes to cooperation differ significantly. Hence, more comparative or multiple-case studies would enable the possibility to conclude the scalability of EC models. Secondly, the study relies primarily on qualitative

methods, which allow for depth and nuance but limit the quantitative assessment of environmental and socio-economic contributions. As a result, some of the provided claims regarding contributions and impact remain interpretative and grounded in stakeholder perception rather than hard metrics. Thirdly, the sample size of the interviews included a total of thirteen interviews, which, while adequate for exploratory qualitative research, may fail to represent the diversity of stakeholders involved in collective agri-environmental governance in the Netherlands. Finally, the study presents a cross-sectional analysis of *BoerenNatuur*'s role and potential, with the main empirical focus limited to 2016-2025. However, due to the dynamic, path-dependent, and subject to long-term policy developments inherent nature of transitions in environmental governance, this study's analysis may fail to address emerging developments, feedback loops and potential delayed institutional responses affiliated with the work of ECs.

### Analytical and Conceptual Limitations

Alongside some methodological pitfalls, the study is constrained by some conceptual and analytical limitations. One of the core objectives of the study is to assess the success of *BoerenNatuur* in contributing to wider EU sustainability targets. However, "success" is a largely multi-dimensional concept, and it can refer to a myriad of meanings, such as ecological outcomes, farmer participation, and policy influence. Despite this study's effort to provide a structured framework, some aspects remain difficult to standardise and quantify, especially considering the informal and context-specific nature of ECs. Additionally, despite this study's attempt to establish the environmental and socio-economic contributions of *BoerenNatuur*, establishing a clear causal link between ECs and the broader sustainability outcomes proves too difficult due to the influence of other factors. Finally, this thesis attempts to contribute towards the conceptualisation of what pathways for institutional development might entail, such as legal recognition, direct EU funding access and institutional embedding. However, due to the lack of precedents and benchmarks in existing literature and policy discourse, the assessment of its feasibility and desirability of different pathways faces a new challenge.

### Data-Related and Empirical Limitations

A major limitation encountered during the study process is the absence of accessible and disaggregated ecological data that could directly link *BoerenNatuur*'s activities to measurable environmental outcomes (sub-RQ3). While stakeholders frequently referred to the positive environmental impacts of ECs work during the interviews, there are no consistent longitudinal datasets available to empirically validate these claims. This lack of data largely limits this study's ability to make robust, evidence-based claims about *BoerenNatuur*'s environmental contributions, and it also constrains *BoerenNatuur*'s potential to advocate for formal policy recognition based on impact. Another major data limitation comes from the interviews, which extensively rely on self-reported information and are vulnerable to social desirability bias, considering that the participants are professionally invested in the object of examination. Despite this study's effort to triangulate the data and remain relatively reflexive, its positionality and the inherent subjectivity of qualitative data interpretation must be acknowledged. Finally, some of the interviews and key documents used in the analysis were originally written in Dutch and translated into English. Although this translation was carefully conducted, cultural expressions and subtle nuances may have been diluted or lost in translation, affecting the interpretation of certain results.

## Theoretical Boundaries

Finally, while this research focuses on ecology-related impacts, it does so mainly from a governance and institutional lens. However, the most biophysical and agri-ecological dimensions of sustainability are discussed in less depth than governance structures, actor networks and institutional legitimacy. On the other side, the study does not delve deeply into the political economy dimensions of *BoerenNatuur's* societal role, such as the power dynamics between farmer groups, state agencies, and agri-business interests.

## 6.2 Policy Recommendations

Based on the empirical results of this study, the discussed implications and limitations of the research, several policy recommendations can be made to support the work of ECs and *BoerenNatuur* and enhance their role within the broader framework of collective agri-environmental governance.

### ***I. Establishment of Long-Term Funding Instruments***

Following on from one of the most consistent challenges faced by the ECs, or their short-term and uncertain nature of current funding streams, this study suggests the establishment of multi-annual funding arrangements that provide financial continuity, reduced transition costs, and enable the longer-term ecological planning at the landscape level.

### ***II. Streamline Administrative Processes and Reduce Compliance Burden***

Another major challenge addressed by the research is the excessive bureaucracy related to the various subsidy processes ECs are involved with. Hence, in order to support the work of ECs and particularly those that demonstrate ecological expertise and performance history, policy frameworks need to simplify reporting requirements and adopt more trust-based accountability mechanisms.

### ***III. Invest in Capacity Building and Knowledge Structure***

Considering the varying organisational maturity across ECs, more targeted support should be provided to build institutional capacity, technical expertise, and inter-collective knowledge exchange. This can take the form of dedicated funding for administrative staff or ecological advisors.

### ***IV. Co-create Monitoring and Evaluation Tools with ECs***

Another major recommendation to address the current lack of robust, disaggregated impact data, this paper suggests that policymakers and research institutions partner with collectives to develop more participatory monitoring frameworks. Such tools need to measure not only the environmental outcomes, but also social and institutional indicators, which better reflect the multi-dimensional contributions of ECs to collective agri-environmental governance.

#### V. *Protect ECs Autonomy in Governance Reform*

Considering the crucial role of autonomy in ECs functioning, this research proposes a more careful consideration of the core principles of self-organisation and farmer ownership in the design of future policy instruments. Further institutionalisation in this regard should not translate into standardisation or undermining of the trust-based, experimental ethos that allows ECs to adapt within dynamic policy and ecological landscapes.

### 6.3 Suggestions for Future Research

Following the limitations and policy recommendations, several avenues for the future emerge from this study. Firstly, in order to assess whether the tensions identified in the Dutch context, such as institutional marginalisation of collective actors like *BoerenNatuur*, are unique or reflective of broader patterns within CAP implementation, this study suggests a comparative analysis across member states. This can help test the transferability of the “Dutch Model” and reveal how cultural, institutional and political contexts shape the effectiveness of collective agri-environmental governance structures. Secondly, given the highlighted ambivalence toward institutionalisation, this study suggests the need for further empirical assessment of new participatory governance models. An example could be an experimental collaboration between *BoerenNatuur* and regional and/or national policymakers, which can potentially generate insights into how co-design might be implemented into practice, without eroding the ECs autonomy. Thirdly, future research can focus on a more longitudinal perspective of institutionalisation processes unfolding over time. Such studies can identify institutional tipping points, moments of co-optation, or practically successful pathways of integration by integrating the concerns raised by stakeholders about the trade-off and potential risks of becoming more embedded in top-down policy structures. Finally, future research could investigate potential cross-sectoral linkages, exploring ways of extending and integrating *BoerenNatuur’s* model within other domains of sustainability governance, such as renewable energy cooperatives, ecosystem services, etc. Examination like that could build on this study’s results that *BoerenNatuur* and the “Dutch Model”’s institutional value lies not only in its ecological contributions, but in its capacity to bridge and navigate multiple domains and stakeholder interests.

To sum up, *BoerenNatuur* and the “Dutch Model” represent a potential institutional laboratory for assessing the future of collective agri-environmental governance in Europe, expanding its role beyond being an implementor of financial mechanisms. However, realising this potential requires rethinking how to define, support, and properly institutionalise bottom-up governance innovations within complex policy systems.



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# APPENDICES

## Appendix A - Literature Review

### *Appendix A1 - Rise of Environmental Cooperatives and BoerenNatuur in the Netherlands: Foundations and Historical Context*

#### Global Cooperative Movement: Definition and Characteristics

To trace the emergence and functional characteristics of ECs, an important distinguishing need to be done between “cooperative” (*in Dutch: cooperatief*) and “collective” (*in Dutch: collectief*). According to the CDI (2024), the word “cooperative” refers to a democratically owned and governed organisation, while “collective” focuses on the non-hierarchical management structure, ensuring all members have equal decision-making power. In other words, while “cooperatives” refer to the specific ownership structure, the word “collective” refers to how members participate within this management structure (CDI, 2024).<sup>5</sup> Furthermore, CDI (2024) stresses the crucial interlinkage between collectives and cooperatives, where “worker collectives” are always “worker cooperatives”, but not the other way around. *For the sake of this paper, the word cooperative will be used to represent both the “collective” and “cooperative” terms.* Furthermore, the European Commission (2012) defines cooperatives based on user ownership, control, and benefits, like Producer Organizations (POs). Firstly, cooperatives are *user-owned* because the users of cooperatives’ services are also the owners of the cooperative organisation (European Commission, 2012). Hence, ownership means that the users are the main providers of equity capital within the organisation (European Commission, 2012). User ownership is also tightly related to the fact that cooperatives are *user-controlled*, meaning that the users of the cooperatives are the ones that decide on the strategies and policies of the organisation (European Commission, 2012). Finally, cooperatives operate for the *user benefit*, because all the benefits of the cooperatives are distributed to its users on the basis of their use and the individuals benefit according to the proportion of their individual use (European Commission, 2012).

The cooperative movement began in the 19th century to address socio-economic challenges. The Rochdale Society of Equitable Pioneers (1844) laid the foundation by promoting democratic control, economic participation, and education (Zeuli & Cropp, 2004; Birchall, 1997). By the late 19th century, cooperatives had expanded across Europe and North America, especially in agriculture and retail (Fairbairn, 1994). The International Cooperative Alliance (1895) further unified the movement (ICA, 2024). A prominent example are the agri-cooperatives, which originated in 17th-century Europe, where border guard families collectively cultivated land (Hallberg, 2007). The concept gained traction in the late 19th century, coinciding with the rise of civil agricultural cooperatives in France and Germany, which supported small farmers against larger entities (Zeuli & Cropp, 2004). By the early 20th century, cooperatives diversified into supply and marketing cooperatives to counterbalance investor-owned firms. As of 2020, over

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<sup>5</sup> Important specification, as within BoerenNatuur, all the members are collectives, but at the same time present a collective governance model.

40,000 agri-cooperatives in Europe serve more than 9 million farmers and 600,000 workers (Ajates, 2020). Despite promoting food security and socio-economic resilience, they face challenges like global market competition, pressure to balance democratic values with profitability, and adapting to climate change and agricultural policies (Ajates, 2020).

### **Dutch Cooperative Movement and the Rise of Environmental Cooperatives in the Netherlands**

Various cooperatives can be found within the agricultural sector in the Netherlands, from well-known sectors with large market shares such as food wholesale and retail to picking-up sectors such as professional services and healthcare (European Commission, 2012a). Two clashing parallel developments have been crucial for the realising of these tendencies, and these are on the one hand the continuous process of consolidation through mergers among cooperatives, and on the other hand the establishment of more producer organisations (European Commission, 2012a). An example of the former is the consolidation of rural credit banks under Rabobank as a financial company (European Commission, 2012a). As a result of this merging the number of local Rabobank decreased from 400 in 2000 to 141.3 in 2010, while simultaneously the membership base topped 1.8 million members, considering the total amount of registered farmers approximating 75,000 (European Commission, 2012a). On the other hand, an example of the latter is the growing number of cooperatives in the fruit and vegetables industry, horticulture, arable farming and marketing of regional products (European Commission, 2012a). One of the reasons for this development has been the introduction of the 1996 EU Regulation for Common Market Organisations (CMO) for the case of fruit and vegetable cooperatives (European Commission, 2012a). This development presents an example of how policy arrangements enabled the growth of such cooperative arrangements (European Commission, 2012a).

Alongside the many other forms of agri-cooperatives, ECs have been growing in numbers and importance since the early 1990s. The roots of ECs in the Netherlands, however, can be traced back to the broader landscape of agricultural cooperatives and the major rural governance movements that emerged in the mid-20th century. For most of the 20th century, Dutch agriculture was primarily focused on increasing productivity, with state-led modernization policies and intensified farming practices, also known as productivist agricultural regime (Glasbergen, 2000; Runhaar et al., 2020). A shift in awareness of the environmental impacts of intensive agriculture in the 1960s began to take place, with a greater focus on issues such as soil degradation, water pollution and biodiversity loss (Glasbergen, 2000). It was not until the late 1970s and 1980s that the environmental consequences of industrialized farming promoted the introduction of new environmental regulations, which restricted certain agricultural practices, such as the excessive use of manure and pesticide application (Hees et al., 1994). Up until the 1990s, farmers responded to such challenges and policies individually, rather than through a collective or cooperative framework, and sustainability was either secondary or of no concern, compared to economic productivity (Glasbergen, 2000). During this time agricultural cooperatives mainly focused on economies of scale and market efficiency, with some of them focusing on alternatives that could integrate environmental stewardship with agricultural productivity (Aarts & Woerkum, 1996).

Central to the research on ECs in the Netherlands has been the work by Renting & van der Ploeg (2001), who have been exploring the role of ECs as institutional arrangements for creating coherence between farming, ecology and society. According to Renting & van der Ploeg (2001), the EC movement emerged as a response to the increased artificialization of agricultural production, aiming at renewing the embedding of farming to its local environment. What made this process possible, according to Renting & van der Ploeg (2001), is that ECs enabled the construction of a new network to sustain regenerative agriculture and rural development within the respective locality. Three crucial elements allowed this recreation, with the first one being the establishment of new institutional arrangements between the state and agriculture, acting as intermediaries between the two actors (Renting & van der Ploeg, 2001). This arrangement has been established as a response to a generalised distrust between farms and the state, which has permeated the effectiveness of relevant policies (Renting & van der Ploeg, 2001). Secondly, the second element Renting & van der Ploeg (2001) explore is the rebuilding of trust at the local level, by actively creating new networks and coalitions between the farming population and other rural interest groups. Seen as a move towards building on *social capital*, ECs have significantly contributed to the consolidation and reinforcement of the social resource base between social actors, setting the stage for joint projects between actors. The later element also had implication for the advocacy towards integrating land use and economic activities within their local context, which goes beyond distrust and conflict (Renting & van der Ploeg, 2001). Finally, Renting & van der Ploeg (2001) point out to the efforts of ECs to rearrange institutional relations with state agencies and other actors, with the goals of re-embedding farming by creating more space for manoeuvring. The authors also point out the necessity for alleviating the strong external pressures from market forces and prescriptive policy frameworks for farmers to undertake more sustainable practices, which has been a central goal of ECs re-embedding mission (Renting & van der Ploeg, 2001). Overall, Renting & van der Ploeg (2001) stress the role of ECs as independent institutional entities, which sustain a dynamic of institutionalism, while simultaneously partaking in larger formal and informal institutional context.

## *Appendix A2 - Historical Overview of Institutional Changes: 1990-2025*

### **Formal Institutional Context**

#### **European Level and Common Agricultural Policy (CAP)**

As an overarching policy and governance framework, the EU significantly shapes the operations of ECs through its policy frameworks, funding mechanisms, and regulatory requirements (European Commission, 2024). Since its inception in 1962, the CAP has undergone six major reforms, progressively integrating environmental objectives that have fostered EC development (European Parliament, 2023). The 1992 MacSharry reform marked a shift to direct payments and introduced agri-environmental schemes (AES), laying the foundation for collective AES (Falconer & Saunders, 2002; Mettepenningen et al., 2011). Agenda 2000 reinforced this by adding rural development as a second pillar, while subsequent reforms, including the 2003 Fischler and 2009 Health Check reforms, strengthened sustainability efforts. The 2013 CAP reform introduced greening measures linking subsidies to ecological practices, and the 2020

reform further prioritized environmental funding and decentralized implementation through National Strategic Plans (NSPs).

## Dutch National Context and National Policy Implementation

In addition to the CAP, since the 1990s a succession of Dutch national policies has been instrumental in shaping the operational landscape for ECs, according to the *Nationaal Programma Landelijk Gebied (NPLG)*. The 1990 *Natuurbeleidsplan* was one of the earliest policies addressing biodiversity loss, introducing the *Ecologische Hoofdstructuur (EHS)* to strengthen natural areas through ecological corridors (van Tooren et al., 2004). ECs played a crucial role in implementing these projects, such as *Plan Goudplevier*, by coordinating landowner participation and aligning agriculture with conservation goals (RIVM, 2002). The 2013 *Natuurpact* expanded the EHS framework by integrating agriculture into *Natuurwerk Nederland (NNN)* and decentralizing nature policy to provinces (PBL, 2024). Another key policy in the NPLG is the *Programma Aanpak Stikstof (PAS)*, aimed at balancing nitrogen reduction with economic development, particularly in Natura 2000 areas (RIVM, 2020). Additionally, the *Nationaal Waterplan (NWP)*, which guided water management from 2009-2021, focused on improving water quality under the *Kaderrichtlijn Water (KRW)* and led to the establishment of programs such as the *Deltaprogramma* and *Regionale Waterbeheer programma*, integrating water management into national spatial planning.

## Appendix B - Methodology

### Appendix B1 – Literature Review Search Terms

- ▶ “BoerenNatuur” AND “Netherlands”
- ▶ “Environmental cooperatives” OR “environmental collectives” OR “agrarisch natuur verenigingen” AND “Netherlands” (and alterations such as adding “successful environmental cooperatives/collectives”)
- ▶ “Agrarisch verenigingen” OR “agricultural collectives” AND “Netherlands”
- ▶ “Collective agri-environmental governance” OR “collective agri-environmental governance” OR “Dutch Model” AND “Netherlands”
- ▶ “Agri-environmental policy” OR “agri-environmental governance” OR “agri-environmental measures” AND “Netherlands”
- ▶ “Agri-environmental climate measures” AND “Netherlands”

*For all search terms alterations such as adding “successful”, “challenges”, “barriers”, “impact”, “socio-economic impact”, “environmental impact”, “ecological impact” and others were used to expand the variability of sources.*

## Appendix B2 – Thematic Guidelines and Questionnaire

### I. English Version

#### Thematic Goal #1

To validate indicators from literature: *Test whether the indicator I have defined (such as challenges, success factors, impacts and enabling conditions, alignment with wider-EU targets) are accurate, relevant and comprehensive enough.*

- ▶ *Do you think the following categories reflect the reality of ECs operations (such as challenges, success factors, etc)?*
- ▶ *Are there missing or overlooked indicators that should be added?*
- ▶ *Are there indicators that are less significant or irrelevant to the work of ECs?*
- ▶ *EXTRA: Can you provide examples where an important factor wasn't captured by these categories?*

#### Thematic Goal #2

Understand what ECs have achieved: *Collect evidence of tangible outcomes of ECs activities in contributing to environmental and socio-economic goals.*

- ▶ *What are measurable environmental or/and socio-economic impacts that ECs have achieved so far?*
- ▶ *Can you share specific examples of achievements related to biodiversity restoration, pesticide reduction, organic farming, or other sustainability targets?*
- ▶ *How do ECs measure or evaluate their contributions to these goals?*
- ▶ *Do you think these achievements align with the broader EU or national sustainability targets?*
- ▶ *EXTRA: Are there any areas where ECs have fallen short of their intended outcomes?*

#### Thematic Goal #3

How were these achievements made: *Identify strategies, methods, and processes ECs use to achieve their goals.*

- ▶ *What specific interventions have been most effective for achieving EC goals?*
- ▶ *How do ECs translate policies (CAP and cAECM) into actionable outcomes?*
- ▶ *What is the role of collaboration, knowledge sharing, and stakeholder engagement play in achieving success?*
- ▶ *How do ECs overcome operational challenges and adapt to external pressures (funding shifts, policy changes)?*
- ▶ *EXTRA: Can you share an example of a time when an EC successfully overcame significant challenges?*

#### Thematic Goals #4:

Explore underlying challenges: *What are the barriers ECs face in achieving their goals and contributing to sustainability targets?*

- ▶ *What are the main challenges (funding gaps, governance issues, stakeholder conflicts, regional disparities) that ECs face in their operations?*
- ▶ *Are these challenges unique to ECs or do other types of cooperatives face similar issues?*
- ▶ *How do these challenges impact ECs operations and outcomes?*
- ▶ *What challenges are ECs using to address and mitigate these challenges?*
- ▶ *EXTRA: Do you think regional disparities play a significant role in these challenges?*

#### Thematic Goal #5:

Determine the enablers that allow ECs to succeed despite challenges.

- ▶ *What do you think are the most important contributors to ECs success and why?*
- ▶ *How does BoerenNatuur support ECs and foster collaboration?*
- ▶ *If you had to prioritise one or two enablers, what would they be and why?*
- ▶ *EXTRA: Are there specific conditions that must be present for an EC to thrive?*

#### Thematic Goal #6:

Assess alignment with wider-EU Sustainability Targets: *Evaluate how well ECs align with broader EU sustainability targets and what gap remains.*

- ▶ *How do ECs align with EU targets like biodiversity restoration, pesticide reduction, and expanding organic farming?*
- ▶ *How do ECs contribute to goals such as:*
  - ▶ *EU Biodiversity Strategy for 2030 - Expanding organic farming to cover at least 25% of agricultural land in the EU by 2030, promoting biodiversity-friendly farming techniques.*
  - ▶ *EU Green Deal - Reduction of pesticide use by 50% by 2030.*
  - ▶ *EU Biodiversity Strategy for 2030 - Increase in biodiversity-rich habitats on agricultural land.*
- ▶ *What are the barriers to achieve these targets?*
- ▶ *What additional support would help ECs align more closely with these gaps? (e.g funding, policy changes, perception)?*
- ▶ *Do you think that the ECs model is viable for scaling up contributions to EU sustainability targets?*

#### Thematic Goals #7:

Assess the requirements for contributing to wider-EU sustainability goals: Identify barriers, perceptions and pathways for inclusion.

- ▶ *What factors have prevented ECs from being formally recognised or included in the policy discourse?*



- ▶ *Is it due to the governance structure, lack of evidence of their contributions, or other factors?*
- ▶ *How do you perceive the role of ECs in achieving sustainability targets?*
  - ▶ *Are there misconceptions or gaps in understanding their potential?*
- ▶ *What would it take to formally recognise ECs as contributors to sustainable policy objectives?*
  - ▶ *Are there any institutional structures that can support this integration?*
- ▶ *What evidence of advocacy is necessary to position ECs as formal contributors?*

## II. Dutch Version

### Thematic Goal #1:

- ▶ *Denkt u dat de volgende categorieën de realiteit van EC-activiteiten weerspiegelen (zoals uitdagingen, succesfactoren, enz.)?*
- ▶ *Ontbreken er indicatoren of worden ze over het hoofd gezien die moeten worden toegevoegd?*
- ▶ *Zijn er indicatoren die minder belangrijk of irrelevant zijn voor het werk van EC's?*
- ▶ *EXTRA: Kunt u voorbeelden geven van gevallen waarin een belangrijke factor niet door deze categorieën werd vastgelegd?*

### Thematic Goal #2:

- ▶ *Wat zijn meetbare milieu- en/of sociaaleconomische effecten die EC's tot nu toe hebben bereikt?*
- ▶ *Kunt u specifieke voorbeelden delen van prestaties met betrekking tot biodiversiteitsherstel, pesticidenreductie, biologische landbouw of andere duurzaamheidsdoelen?*
- ▶ *Hoe meten of evalueren EC's hun bijdragen aan deze doelen?*
- ▶ *Denkt u dat deze prestaties aansluiten bij de bredere EU- of nationale duurzaamheidsdoelen?*
- ▶ *EXTRA: Zijn er gebieden waarop EC's tekort zijn geschoten in hun beoogde resultaten?*

### Thematic Goal #3:

- ▶ *Welke specifieke interventies zijn het meest effectief geweest voor het bereiken van EC-doelen?*
- ▶ *Hoe vertalen EC's beleid (CAP en ANLb) naar uitvoerbare resultaten?*
- ▶ *Wat is de rol van samenwerking, kennisdeling en betrokkenheid van belanghebbenden bij het behalen van succes?*
- ▶ *Hoe overwinnen EC's operationele uitdagingen en passen ze zich aan externe druk aan (financieringsverschuivingen, beleidswijzigingen)?*

- ▶ EXTRA: *Kunt u een voorbeeld geven van een moment waarop een EC met succes een aanzienlijke uitdaging heeft overwonnen?*

#### Thematic Goal #4:

- ▶ *Wat zijn de belangrijkste uitdagingen (financieringstekorten, bestuursproblemen, conflicten tussen belanghebbenden, regionale verschillen) waarmee EC's in hun activiteiten te maken krijgen?*
- ▶ *Zijn deze uitdagingen uniek voor EC's of hebben andere soorten coöperaties te maken met soortgelijke problemen?*
- ▶ *Hoe beïnvloeden deze uitdagingen de activiteiten en resultaten van EC's?*
- ▶ *Welke uitdagingen gebruiken EC's om deze uitdagingen aan te pakken en te verzachten?*
- ▶ EXTRA: *Denkt u dat regionale verschillen een significante rol spelen bij deze uitdagingen?*

#### Thematic Goal #5:

- ▶ *Wat zijn volgens u de belangrijkste bijdragers aan het succes van EC's en waarom?*
- ▶ *Hoe ondersteunt BoerenNatuur EC's en bevordert het samenwerking?*
- ▶ *Als u een of twee enablers zou moeten prioriteren, welke zouden dat dan zijn en waarom?*
- ▶ EXTRA: *Zijn er specifieke voorwaarden waaraan een EC moet voldoen om te kunnen floreren?*

#### Thematic Goal #6:

- ▶ *Hoe sluiten EC's aan op EU-doelen zoals biodiversiteitsherstel, pesticidenreductie en uitbreiding van biologische landbouw?*
- ▶ *Hoe dragen EC's bij aan doelen zoals:*
  - ▶ *EU-biodiversiteitsstrategie voor 2030 - Uitbreiding van biologische landbouw tot ten minste 25% van het landbouwareaal in de EU tegen 2030, bevordering van biodiversiteitsvriendelijke landbouwtechnieken.*
  - ▶ *EU Green Deal - Vermindering van het gebruik van pesticiden met 50% tegen 2030.*
  - ▶ *EU-biodiversiteitsstrategie voor 2030 - Toename van habitats met een rijke biodiversiteit op landbouwgrond.*
- ▶ *Wat zijn de belemmeringen om deze doelen te bereiken?*
- ▶ *Welke aanvullende ondersteuning zou EC's helpen om beter aan te sluiten bij deze hiaten? (bijv. financiering, beleidswijzigingen, perceptie)?*
- ▶ *Denkt u dat het EC-model levensvatbaar is voor het opschalen van bijdragen aan EU-duurzaamheidsdoelen?*

#### Thematic Goal #7:

- ▶ *Welke factoren hebben verhinderd dat EC's formeel werden erkend of opgenomen in het beleidsdiscours?*

- ▶ *Komt dit door de bestuursstructuur, gebrek aan bewijs van hun bijdragen of andere factoren?*
- ▶ *Hoe ziet u de rol van EC's bij het behalen van duurzaamheidsdoelen?*
  - ▶ *Zijn er misvattingen of hiaten in het begrijpen van hun potentieel?*
- ▶ *Wat zou er nodig zijn om EC's formeel te erkennen als bijdragers aan duurzame beleidsdoelstellingen?*
  - ▶ *Zijn er institutionele structuren die deze integratie kunnen ondersteunen?*
- ▶ *Welk bewijs van pleitbezorging is nodig om EC's te positioneren als formele bijdragers?*

## Appendix B3 – Sampling Criteria

- ▶ **Criteria 1 Relevance to the Research Topic:** Participants were selected based on their involvement or expertise with the “Dutch Model” and *BoerenNatuur*. This includes both internal actors as well as external stakeholders.
- ▶ **Criteria 2 Availability and Willingness to Participate:** Given the constraints of the fieldwork and the voluntary nature of participation, availability and willingness are key considerations.
- ▶ **Criteria 3 Geographic Representation (for *BoerenNatuur* Representatives):** To account for regional variations and organisational dynamics, the samples included representatives from different provinces and ECs, as well as different levels of governance.
- ▶ **Criteria 4 Variations in Organisational Scope (for *BoerenNatuur* Representatives):** The sample also aimed at ECs with different sizes, focus areas and levels of institutional maturity, to better capture the heterogeneity within the network.