Nature reflecting society

On co-governance and its role in societalizing Dutch nature development projects

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Abstract

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In the 1990s, a highly technocratic and ecologically minded plan for a Dutch National Ecological Network was originated, including the transformation of a range of former agricultural areas into nature. The need to reflect society in the development of nature has widely been written on and even been fixed in a more recent policy. However, detailed evaluation of and knowledge on how nature development can be governed in a more societalized way is lacking. This research focuses on the role of co-governance in the societalization or 'social sustainability' of nature development projects. Conceptually, this is done by merging the landscape concept to the theory on social-ecological systems. The outcome is the Social-Ecological Landscape-model (SEL), in which governance is framed as a central component of changing landscapes in a socially sustainable way.

The research was carried out by studying two recent nature development projects in the North of the Netherlands. First, societalization in terms of the organisation of governance was studied, whereas secondly, the substance of governance was examined. This was done by conducting interviews with actors, alongside an actor-mapping methodology. The two case-studies showed how the national nature goals were implemented by incorporating nature development in existing land consolidation schemes. It means that nature was developed in harmony with regionally and historically embedded spatial agendas and by reaching mutual gains with – amongst others – agriculture, recreation and water management functions. Furthermore, the importance of a common ground on the value-level was emphasized, to make sure society is not alienated from the changing landscape. In summary, the conclusion based on the case studies is that co-governance can play a pivotal role in developing mediated nature in a socially sustainable way. On the one hand as a means to reflect values and interests in the decision making process and on the other hand to build consensus in plural societies.

Keywords: *co-governance, consensus, Dutch cultural landscapes, nature development, policy arrangements, social-ecological landscapes, social sustainability, societalization.*

'Nature is conquered only by obedience'
Francis Bacon

Picture by author (2015)
Tallinn, Estonia

Preface / voorwoord

Al op de voorzijde van deze masterscriptie betoog ik dat natuur een reflectie is van de samenleving die haar bedenkt en ontwikkelt. Evenwijdig hieraan is deze scriptie een reflectie van haar maker. Dat de ruimtelijke planning van juist de natuur en het landschap centraal staan is hier een eerste aanwijzing van. Daarnaast verraden de vele figuren en de conceptuele paragrafen dat ik een denker ben. Nog meer dan het eindresultaat was het proces soms een persoonlijke spiegel. Een wordingsproces, een leerproces en soms simpelweg een productieproces. Maar ook zeker een mooie tijd met boeiende ervaringen. Natuurontwikkeling en landinrichtingen zijn interessante en levendige processen en lenen zich uitstekend om over te filosoferen en om onderzoek naar te doen. Het was, naast nuttig, inspirerend om onder het genot van een kopje koffie de verhalen van al de geïnterviewde mensen (het woord 'actoren' beloof ik vanaf nu te boycotten) te horen. Van de fietstocht door de kersverse natuur naar de interviewlocatie tot de informele praatjes nadat de recorder uitstond. Wel was het daardoor niet altijd even gemakkelijk om in de rol van de objectieve wetenschapper te blijven.

Dan het dankwoord. Om te beginnen een hartelijk dank richting de geïnterviewde mensen voor hun tijd en toewijding. Voor zijn feedback en meedenken in de beginfase van het schrijfproces wil ik Erik Meijles bedanken, net als Johannes Hoogland en Sjoerdje Ritsma voor de brainstormsessies op het Ierse Pleintje en lotgenoot Arjen Terpstra, die bij bijna iedere fase van het schrijfproces wel op een of andere manier betrokken was. Tot slot een bijzonder dankwoord aan een drietal mensen. Natuurlijk gaat het dan om Kitty Gugerell, die als bekwame supervisor op eigenzinnige wijze op de juiste momenten bijstuurde. Heel wat meetings, deadlines (inclusief culinaire punishments) en zelfs een ontbijtje later ligt hier dan het resultaat waarvan ik me soms afvroeg of het er ooit zou komen te liggen, maar waarin Kitty altijd vertrouwen uitsprak. Daarnaast wil ik Tjitske Ritsma bedanken voor het klassieke tikwerk en alle steun en toeverlaat. Tot slot, Roos, ook jij als ervaringsdeskundige bedankt voor je steun op zowel het inhoudelijke als het minder inhoudelijke – maar daardoor zeker niet minder nuttige – vlak.

Veel leesplezier en gegroet,

Wessel van Vliet
Groningen, December 2015

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List of figures and tables

List of translated terms

English	Dutch (*Frisian*)
Administrative board	Bestuurscommissie
Agri- and horticultural organisation	Land- en Tuinbouworganisatie (LTO)
Blueprint plan	Raamplan
Early land consolidation	Ruilverkaveling
Environmental impact assessment	Milieueffectrapportage (MER)
Government Organization for Forestry and Management of Nature Reserves	Staatsbosbeheer
Land consolidation	Herinrichting of landinrichting
Marsh nature with wetlands and reed	*Bûtlân*
National Ecological Network (NEN)	Natuurnetwerk Nederland / Ecologische Hoofdstructuur
Nature target types	Natuurdoeltypes
Polderization, depolderization	Inpolderen, ontpolderen
Regional plan	Streekplan
Rural Development Law	Wet Inrichting Landelijk Gebied (WILG)
Societalization	Vermaatschappelijking
Spatial vision	Omgevingsvisie
State Agency for Rural Areas	Dienst Landelijk Gebied (DLG)
Structural vision	Structuurvisie
Water board	Waterschap
Water Framework Directive	Kaderrichtlijn Water (KRW)
Zoning plan	Bestemmingsplan

List of abbreviations

Abbreviation	Meaning
GA	Governance Arrangement
MGA	Mutual Gains Approach
NDP	Nature Development Project
NEN	National Ecological Network
PA	Policy Arrangement
PIV	Positions, Interests, Values
SEL	Social-Ecological Landscape
SES	Social-Ecological System

De Onlanden

Picture by author (2015)

1. Introduction

1.1　New nature in Dutch cultural landscapes

Manmade nature

Landscapes in the Netherlands have a long history of man-made transformation. Dikes and dwelling mounds were built, wilderness was cultivated, lakes and seas were polderized and meadows were rationalized (Van de Ven, 2003). In recent years, a new, seemingly contrasting activity can be added to this list of modern achievements: the creation of nature. The 'development' of new nature areas originated as a revolution, after years of fragmentation and decrease in nature areas, alongside ecological impoverishment (Groote et al., 2006; RIVM, 2002). The immediate cause for this impoverishment lies in the post-war decades, when the 'old' cultural landscapes on the rural countryside were heavily rationalized and modernized, due to agricultural policies aiming for an increased production (Doevendans et al., 2007; Janssen & Knippenberg, 2008). In the meantime, however, thoughts in society on nature conservation shifted, with as its most influential milestone the nature policy plan of 1990 (Van der Windt, 1995). That plan has become famous for raising the concept which nowadays is still the backbone of Dutch nature policy: the National Ecological Network, as shown in figure 1.1 (Ministerie van LNV, 1990; RIVM, 2002).

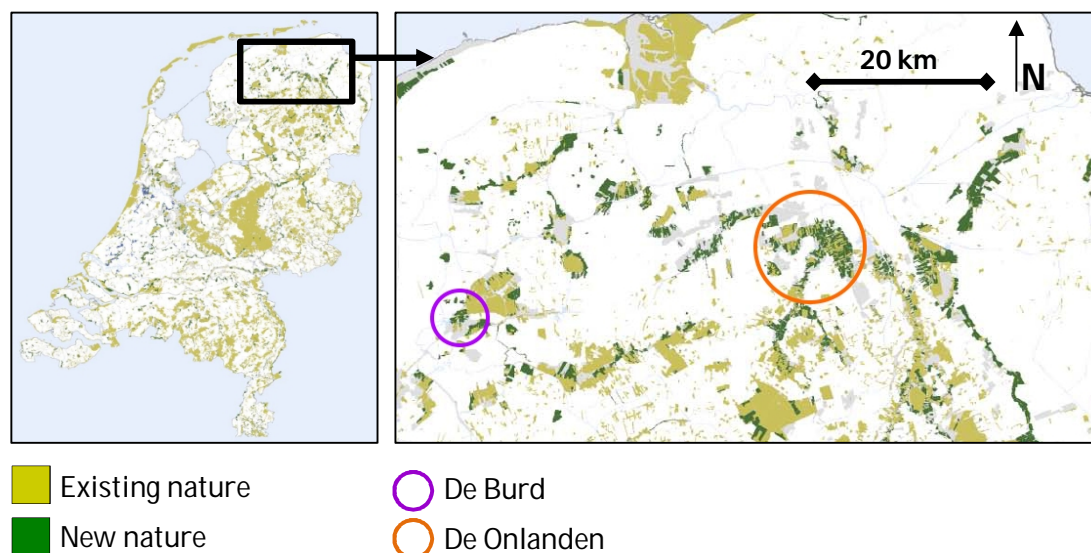|		
🟨 Existing nature	◯	De Burd
🟩 New nature	◯	De Onlanden

Figure 1.1 – *Map with NEN-areas in the northeast of the Netherlands (Feddes, 2002). The two case study areas in this research – De Onlanden and De Burd – are highlighted.*

Nature: with or without culture?

The National Ecological Network (NEN) – 'Natuur Netwerk Nederland' in Dutch and until recently referred to as the 'Ecologische Hoofdstructuur' – includes both the enlargement of nature areas and the connection of different nature areas with each other, in order to facilitate the maintenance of valuable flora and fauna (Voogd et al., 2012). The NEN consists out of existing nature areas, agricultural areas where nature is managed by farmers, large water and sea areas and non-nature areas that have to be developed to nature: so-called 'new-nature' (Voogd et al., 2011). The last category encompasses the cases that are defined here as nature development projects. Since 2014, the provinces are the governmental layer being financially responsible for implementing the NEN (Ministerie van EL&I, 2011). Anyway, the NEN is a top-down policy with its origins in laws from the state government and sometimes even in European directives. Since its foundation in the early 1990s, the main criticism has been its strong technocratic character, mainly inspired by a system ecology way of thinking (Van der Windt & Swart, 2008). This way of thinking is emphasizing the idea that nature should be conserved and created for its supposed intrinsic ecological values, ignoring nature as a resource for lay people and as serving society in general (Buijs, 2009; Groote et al., 2006; Rientjes, 2002).

Societalization of nature development

Together with the struggling implementation, the critique led to a revision of the NEN-policy in 2000, when the policy called 'Nature for people, people for nature' was published. It reframed the essence of the NEN-policy, as it interweaves other than ecological goals and functions in nature development projects, furthermore integrating the previously separated policies on nature, forests, landscape and biodiversity (Ministerie van LNV, 2000). Another substantial implication of the notion 'nature for people' is that people, and all groups and organizations acting under this umbrella, should be involved in nature development projects. It means that a hierarchical government approach is replaced by co-governance and elements of communicative planning strategies (Turnhout & Van der Zouwen, 2010). The co-governance task is challenging, as it has to manoeuvre in an ecologically and socially complex and dynamic 'landscape', with regularly clashing discourses and interests between the actors in the planning arena. Nature development not only forces the physical or ecological landscape to change, but demands social and institutional landscapes to mobilize and rearrange as well. It is in this light that the term of a 'societalized' nature development is coined (Buijs, 2009; Van der Windt et al., 1997).

Research focus: societalized governance of SELs

The main objective in this research is to understand the role of co-governance in the societalization of Dutch nature development projects. Two case studies are conducted, both characterized by a co-governance approach: De Burd in the middle of the Fryslân province and De Onlanden near Groningen. As a theoretical frame for understanding the governance of nature development, the landscape concept is combined with theory on the governance of social-ecological systems. The outcome of this theoretical assemblage is the concept called the 'social-ecological landscape' (SEL). Societalization is interwoven with the social sustainability or resilience of SELs, and consists out of two main components (Arnouts et al., 2012). The first is societalization in the organisation of governance, which is reflected in the actors involved in the decision making process and the power and rules within the field of actors. The second component is the substance of governance: the societalization in the discourse between the actors involved in the decision making process. In this component, the degree of consensus on positions, interests and values of the relevant actors are interesting. For both case studies, these determinants of societalization are analysed and compared throughout this thesis.

1.2 Nature development – trends and traditions

In recent years, the relatively new practice of nature development has been described by different authors from varying scientific disciplines. Often, nature development is marked as one of the shifts in the history of Dutch nature policy. In spite of the consensus on nature development as a new chapter in this history, the interpretation of this shift and the theoretical frame from which it is perceived differs. To get grip on the existing approaches on nature development, they have been divided into four fluid categories. The first is ecological restoration approach, looking at nature development as an intervention of humans in an ecological system. Other writings rely on an institutional framework, emphasizing and investigating the governance aspects of nature development. Thirdly, environmental psychologists and cultural geographers have researched the perceptions and values of people towards nature and so-called 'new wilderness'. Category number four consists of writings in which nature development is explicitly framed as a change in the cultural landscape. For every category, the relevant findings are briefly discussed, thereby providing a stable fundament on which this thesis research is founded (see figure 1.2).
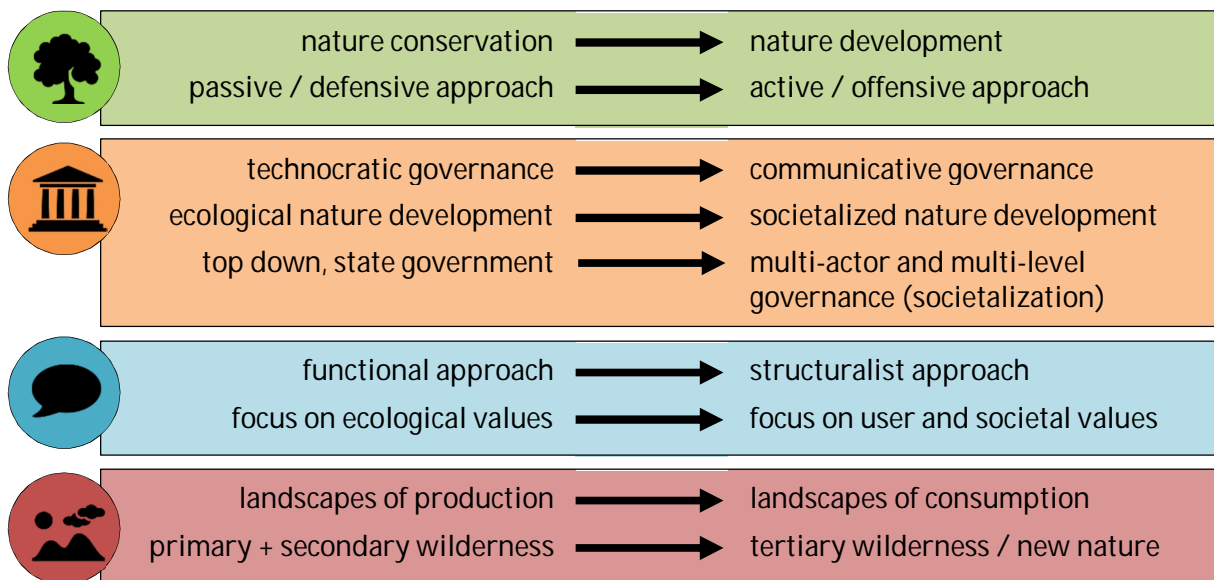
Figure 1.2 – *Shifts in nature policy according to four approaches.*

1. Ecological theory

From ecological theory, nature development is considered as a type of ecological restoration. The Society for Ecological Restoration defines ecological restoration as 'the process of assisting the recovery and management of ecological integrity' (SER, 1999, in Swart et al., 2001, p.230). Ecological restoration is clearly a human intervention to retain the lost or threatened 'integrity of nature', which relates to concepts like biodiversity, regional and historical context, ecological processes and sustainability (Swart et al., 2001). One of the leading articles on restoration ecology is the one by Hobbs & Norton (1996). They distinguish four drivers for ecological restoration: restore ecological disaster sites, to improve the production on degraded production lands, to improve and conserve existing protected nature areas and to improve conservation values in productive, cultural landscapes. Nature development as ecological restoration practice can – dependent on its extent – either fit to type three or four. However, Swart et al. (2001) tend to see nature development as an additional, fifth type of ecological restoration.

The ideas of nature networks and ecological corridors have their origin in ecological theory as well, particularly in systems ecology (Jongman et al., 2004; Rientjes, 2002). There is broad consensus about a shift in the ecological perspective within nature conservation policy, namely the one from conservation to a development approach to nature. 'The focus on protecting existing nature expanded to also include efforts to restore or develop new nature' (Buijs et al., 2014, p.678). They refer to this trend as the 'conservation/development discourse'. It was in the 1970s that this new ecological vision emerged, also including an emphasis on the interconnectedness of nature areas, clearly expressed in the NEN-plan from the early 1990s. Other words used to describe the basically the same turn are 'passive' to 'active' or from 'defensive' to 'offensive' conservation policy (Beunen & Hagens, 2009; Buijs et al., 2014; Rientjes, 2002). The implicit view that nature is something that can and should be protected, restored or shaped for utilitarian purposes is referred to by Rientjes (2002) as an 'ecological rationality' which has emerged during recent years. Comments on this so-called 'ecological enlightment' have been made by Van der Heijden (2005), who emphasizes the critical role of the regional and historical contexts – or 'historical fidelity' – when talking about ecological integrity. Where the development approach often uses pre-historical ecological references, conservationists tend to refer to the 'old' cultural landscapes from around 1850.

2. Governance and institutional approaches

From a planning perspective, nature development is a spatial intervention with lots of institutional political aspects. Many authors focus on evaluations or analyses of specific nature policies, whereby nature development is often gathered under the broader term of nature conservation. Beunen & De Vries (2011), for example, investigated the role of stakeholders in the management of existing Natura-2000 sites, finding that initial choices are highly influential for the remainder of the planning process. A specific process design can either lead to social trust amongst actors or lead to ongoing discussions and conflicts. Also, the selective inclusion of stakeholders can imply the exclusion or marginalisation of others (Ferranti et al., 2014). Overall, however, a clear shift is witnessed from purely technocratic to more economic and participatory approaches in nature conservation policies, both nationally and on a European scale (Ferranti et al., 2014).

Also Rientjes (2002), who argues that current nature conservation policy is still strongly modern and ecologically rational, notices slight aspects of 'late modern society' like a growing importance of communication and nature visions of lay people. To summarize this 'societalizing' trend, the distinction between 'ecological development of nature' versus 'societal development of nature' as dropped by Van der Windt et al. (Van der Windt et al., 1997) is useful. Several authors have clearly postulated the benefits of the ongoing societalization of nature development policies (Buijs, 2009; Groote et al., 2006; Van der Heijden, 2005). A societal development of nature development policy can be related to interactive planning modes and participation in nature conservation, parallel with a decreasing top-down state planning (Van der Windt et al., 2007).

A more extensive analysis of the institutional shifts is provided by Keulartz et al. (2004). They write about a double governance shift in European nature policy. The first one is described as 'a [horizontal] shift from public to semi-public and private organisations, as well as from the legislative bodies proper to the judicial bodies and from command and control to contract and negotiation', in other words: multi-actor or co-governance including both actors from civil society and market actors (Keulartz et al., 2004, p.84; Van Bommel, 2004). The other shift is a vertical one, called multi-level governance, from the national level both up to the supra-national and down to the regional level. Arnouts et al. (2012), based on Kooiman (2003), further specifies different kinds of governance modes, serving a framework of four categories of governance arrangements within Dutch nature policy. The revised NEN-policy 'Nature for people, people for nature' aims for a similar shift from government to governance. However, the ambition of the state to apply governance was institutionalised. In fact, it was an example of 'governance by

government', so without typical participatory characteristics during the process, but with a 'substance' of governance in the output (Turnhout & Van der Zouwen, 2010).

A last shift in the 'governance of nature' is the one from a functionalist to a structuralist approach, which concerns the concepts of nature which are used as communicative devices between the actors that are involved (Keulartz et al., 2004). Instead of approaching nature purely from the side of the functional interests that groups have and which can be negotiated and brought to consensus, they argue for a more democratic, structuralist approach, meaning that values of nature are the main concern in decision making instead of interests.

3. Valuation and perceptions of new nature

Building on their plea for a structuralist approach to nature concepts, Keulartz et al. worked out a valuation approach in which three common value sets of nature are listed: wild nature, Arcadian nature and functional nature (Keulartz et al., 2004; Swart et al., 2001; Van der Windt et al., 2007). Here, the literature drifts away from the governance perspective and washes ashore at the field of perceptions and values, like environmental psychology and cultural geography. Related to nature development, research has been done one how people perceive newly developed nature or wilderness (Van den Berg & Koole, 2006). Arjen Buijs provided multiple studies to people's views on (new) nature, having developed the 'images of nature' concept (Buijs, 2009). In his dissertation, he links the lay people's images of nature to the discussions on the ongoing governance transformations concerning nature conservation, in particular to the process of societalization of nature development policies.

4. Landscape studies

Nature development can also be seen as one of the numerous land use transitions that dynamic landscapes are undergoing. From that perspective, new nature is a brand new chapter in the so-called 'landscape biography' of many areas, breaking with the rationalising and modernising agricultural tendencies and instead shifting towards a focus on values of nature and recreational purposes (Doevendans et al., 2007; Janssen & Knippenberg, 2008). However, according Rientjes (2002), the ecological rationality on which nature development is based still has strong modern characteristics, despite the physical output is strongly opposed to that of the agricultural rationality. In her master thesis on the history of wilderness in the Netherlands, Wolf gave the label 'tertiary wilderness' to nature developed by human intervention, opposed by pristine, natural landscapes or 'primary wilderness' and 'secondary', humanly influenced wilderness (Wolf, 2012). In the landscape discourse, such tertiary wilderness or new nature and the overarching NEN-policy have been analysed and sometimes criticized as disturbing typical ecological and historical characteristics of a landscape (Van Beusekom, 1999; Zomer & Elerie, 2009).

Towards an integrative perspective on nature development

The categories that were distinguished for this literature review have fluid boundaries. The aim in this research is to develop an integrated perspective on current nature developing practices in the Netherlands. Therefore, the ecological, social, institutional and cultural approaches should at least be incorporated in a coherent theoretical frame. This frame is the Social-Ecological Landscape (SEL) framework, which is further developed in chapter two and approaches nature development as a landscape change, wherein governance systems play a pivotal role. In the empirical part of the thesis, therefore, the focus is set on the role of governance in two Dutch nature development projects.

1.3 The nature of the research

Research objectives & problem statement
The starting point for this master thesis research is the changing cultural landscape. More specific, it is the transformation of agricultural landscapes into nature areas, as part of the NEN-policy that runs from 1990 onwards. The focus is not just on the physical or ecological transformation of the landscape, but on the dynamics in the institutional and social landscape as well. In other words: the focus is on governance and its role in the 'societalization' of nature development projects (NDP's) in The Netherlands. A side objective of this research is to develop a conceptual approach that helps to assess NDP's and other landscape-changing projects, and the societalization of how these changes are governed.

Literature shows that the ongoing societalizing trend does not follow standardized tracks, nor is heading in a fixed direction. To gain better insight, the research investigates the increasing role of governance in the aim to practice a societalized, 'socially sustainable' implementation of nature development policy. The problem statement behind this objective lies in the technocratic and state led top-down characteristics that are observed in many of the early NDP's, hardly taking into consideration the stakes in society and therefore potentially fuelling conflict or 'struggle' between different actors (Buijs, 2009; Groote et al., 2006; Keulartz et al., 2004). A co-governance approach, on the other hand, forces actors to interact in a type of government arrangement, in theory with a more socially supported output (Arnouts et al., 2012). However, previous research has clearly shown that such a co-governance approach is no panacea as well. For example, the inclusion of actors automatically means exclusion (Arnouts et al., 2012; Beunen & De Vries, 2011; Ferranti et al., 2014). Besides, some authors criticize the functional focus on negotiation on the interest-level instead of accepting the differences in nature values amongst stakeholders (Keulartz et al., 2004; Swart et al., 2001; Van der Windt et al., 2007).

Research questions
Based on the line of reasoning above, the main question of this master thesis is the following:

> **Main question** *What is the role of co-governance in the societalization of nature development projects in the Neherlands?*

The main question shows that the focus of the research lies in the governmental or institutional set-up behind nature development projects. To be more precise, it is studied how modes of co-governance can foster a more societalized or socially sustainable nature development policy, both in terms of the decision making process (the governance organization) and its output (governance substance or discourse). This twofold-approach to a policy arrangement is coined by Arnouts et al. (2012) and is reflected in the three sub questions that have been formulated to give a coherent answer to the main question.

> **Question 1** *How are the current nature development projects embedded in the recent history of landscape governance in the two cases?*

Question 1 deals with a chronological analysis of recent history of the so-called 'landscape governance' in the two cases. Landscape governance is defined here as dealing 'with the interconnections between socially constructed spaces (the politics of scale) and "natural" conditions of places' (Görg, 2007, p.954). The first question, therefore, can be seen as one that prepares for the remaining two sub questions.

> **Question 2** *To which extent does the organization of the governance arrangement reflect a societalized and socially sustainable way of implementing NDP's in the two cases?*

Following the definition of Arnouts et al. (2012), the organization of a governance arrangement consists out of three components: actors, power and rules. To answer sub question 2a, the so-called 'actor maps' are drawn for both cases, whereas for 2b, the power and rules-component are added in order to define the mode of governance for both cases.

Question 2a   *Which actors are, both directly and indirectly, involved in the NDP?*
Question 2b   *Which type of governance arrangement do both cases show, based on actors, power aspects and rules, and what are its implications for the societalization of the NDP?*

Question three stresses the so-called 'substance' of governance by looking at the positions, interests and values of actors. Moreover, the degree of agreement in terms of compromises or consensus on these levels is studied, on order to judge to which extent the NDP's are not just fulfilling ecological goals, but societal goals as well. The positions-interests-values-threefold, derive from the 'golden triangle' (Bos et al., 2013; Wesselink & Paul, 2010), is translated into sub questions 3a, 3b and 3c.

Question 3   *To which extent does the substance of governance reflect a societalized and socially sustainable way of implementing NDP's in the two cases?*
Question 3a   *Is there consensus amongst the field of actors on the level of positions?*
Question 3b   *Is there consensus looking at the actor's interests?*
Question 3c   *Is there common ground amongst the values of actors concerning the way the landscape is changed by creating nature?*
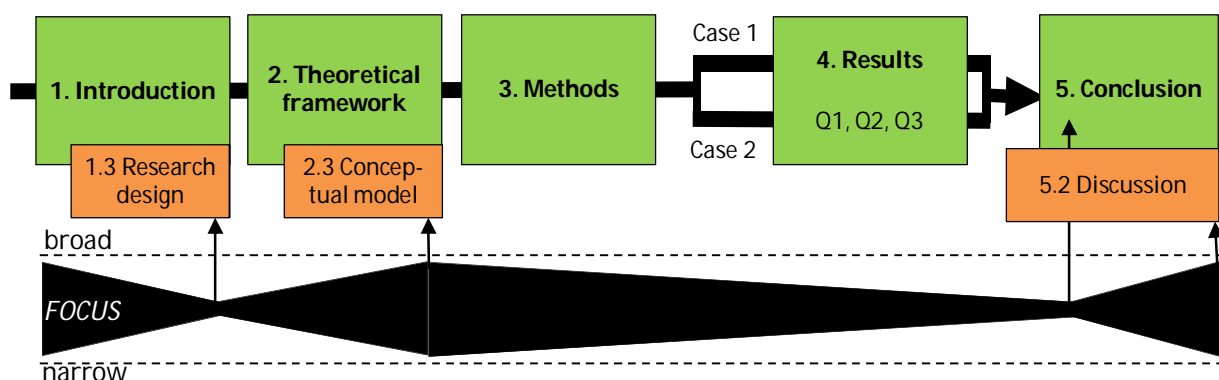
Figure 1.3 – *Research design. The chapters are the green boxes and the black shapes beneath indicate the broadening or narrowing tendencies throughout the research. In orange, the role of the research design, the conceptual model and the latter part of the conclusions are highlighted.*

Research design

In this section, the research objectives and the main question and sub questions have been introduced, being the first step in the research process. Figure 1.3 shows the sequence of steps which are taken in the remainder of the thesis. After this research design, strongly narrowing the research, the focus widens by building a theoretical framework, the so-called 'shoulders of giants' on which this research can stand and be carried out. This second chapter ends with a conceptual model. From this schematized reality, the empirical research is conducted and reported about in chapter 3 on methods and 4 on results. In the results, the two cases are introduced in more detail, and the findings for each of them are analysed and compared per question. The main findings are discussed in chapter 5, where conclusions are drawn in relation to the theoretical framework and the conceptual model. Furthermore, the outcomes are critically discussed and suggestions for future research are done in the second half of this chapter.

Grou and De Burd

Picture from Wikipedia (2015)

2. Theoretical framework

In short, two questions are answered in this theoretical chapter. The first is what social-ecological landscapes are and how nature development fits in this concept. This question is answered in section 2.1. In section 2.2, the question how nature development within such SELs can be governed in a societalized way is addressed. After these issues are addressed, they are assembled into a conceptual model on Social Ecological Landscape (SEL) in paragraph 2.3. In figure 2.1, a preliminary overview is provided with the steps used to construct the conceptual SEL-model. Each of these steps is linked to a paragraph in this chapter.

Figure 2.1 – *Theoretical model. The corresponding paragraphs are indicated on the right.*

As figure 2.1 shows, it is the landscape concept that functions as a starting point to frame nature development, as discussed in paragraph 2.1.1. It is argued that the landscape is the spatial or physical resultant of interaction between nature and culture, which is dynamic and subject to change (paragraph 2.1.2 and 2.1.3). The Social-Ecological Systems-concept (SESs), after Ostrom (2009) and others, is introduced in paragraph 2.1.4, integrating both ecological systems or nature and social systems or culture. Next, the focus shifts to the governance of SESs and its relation with the well-known and commonly used concepts on resilience and sustainability, nailed in paragraph 2.2.1. With these concepts, the societalization-notion, as raised in the introduction, is concretized and categorised (paragraph 2.2.2). In section 2.3, figure 2.1 is extended and discussed in more detail, thereby producing the conceptual model of the thesis.
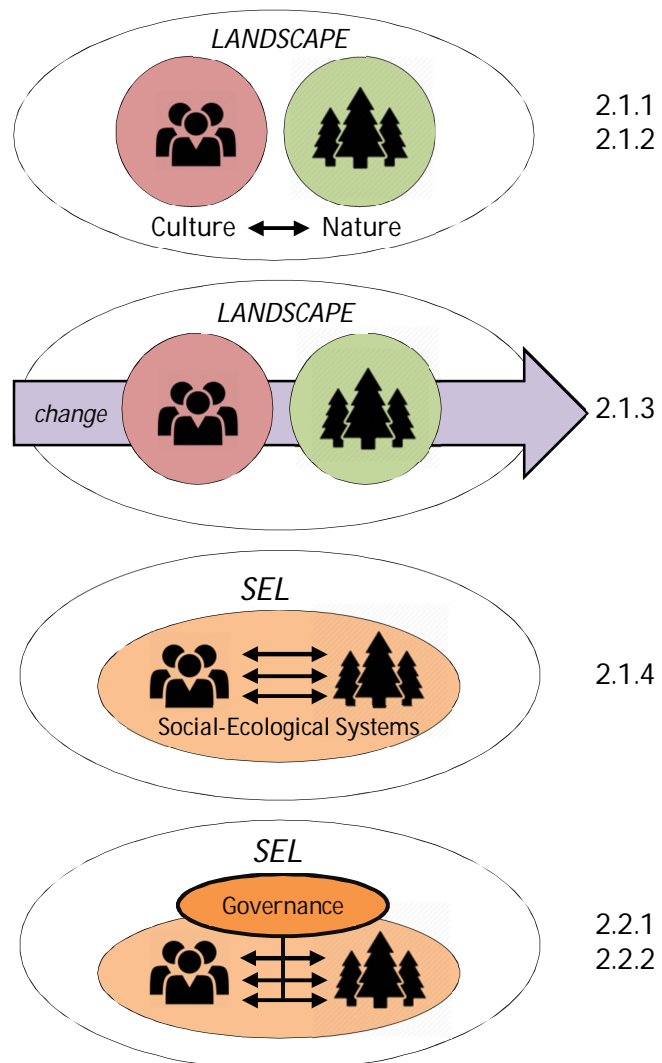
2.1 Landscapes and SES-theory

As stated in the state of the art that is elaborated in the introduction, nature development has been framed from numerous scientific perspectives. The starting point for the theoretical framework is the fourth: nature development as viewed from landscape studies. It is argued here that nature development is in its essence an example of landscape change and that this awareness is crucial to understand the related governance dynamics. This section counts four parts, which have already been outlined in figure 2.1.

2.1.1 Defining 'landscape'

According to the Van Dale – a respected Dutch dictionary – three basic definitions of a landscape exist: the spatial definition of a landscape as a rural surrounding as perceived by people – or in geographical sense: a part of the earth's surface that can be distinguished as a whole, a painting and a historical region (Van Dale, 1992, in Antrop, 2007). The kind of definition that is guiding here is the spatial one, instead of the artistic or the administrative one. However, even when the focus is on the spatial one, many different explanations of the term 'landscape' have existed and do exist.

Historiography of landscape
The oldest use of the term 'landscape' can be found in the Middle Ages and refers to an administrative unit and thus combines the territorial society of that time with the physical environment (Renes, 2011). From the Renaissance onwards, the use of the word 'landscape' evolved. First of all, a landscape as a realistic type of painting was introduced (Antrop, 2007). Secondly, the idea of a landscape as an administrative region slowly disappeared. Instead, it lost her territorial boundedness and moved to a more perceptional or visual concept: the landscape as a scenery or 'paysage' (Antrop, 2007; Renes, 2011). Thirdly, in the Renaissance, landscape became associated with the 'designed landscape': like in the definition of landscape as an administrative unit, it is the décor where the physical environment and the human identity and shaping abilities meet and lead to a spatial, substantive product (Antrop, 2007; Olwig, 1996). As well in line with the Renaissance and the enlightenment, in the 19th century, Von Humboldt came up with a quite rational and scientific approach to the landscape concept. He defined 'landscape' as 'der Totalkarakter einer Erdgegend', thereby underscoring the holistic nature of the term 'landscape' (Antrop, 2007, p.11). In the 19th and 20th century, especially in the field of geography, the emphasis on a landscape as a result of interaction between both social and environmental components grew (Antrop, 2007). An influential and striking example of this is given by geographer Carl Sauer in 'The Morphology of Landscape' in 1925. He defines a landscape as a 'cohesive assemblage of natural and cultural features, small enough to be captured at a glance' (Oakes & Price, 2008, p.150).

What landscape means today
Many current-day definitions of the spatial landscape concept are strikingly similar to the definition as given by Sauer. Antrop (2007) names three elements that occur in one way or the other in almost every present day definition: holism (1 - taking the different processes or components of a landscape as a coherent system, including the psychological process of experience), relativity (2 - a landscape is an observable entity, in other words, always seen from the eyes of the beholder) and dynamics (3 - a landscape is no static snapshot, but evolving or changing). Another element that Antrop does not explicitly name in this sum up is the nature-culture interaction which shapes a landscape (4) and which fosters the dynamics that Antrop does name. Sauer's definition is relatively complete in the sense that it includes the visual aspect, the holistic aspect as well as the nature-culture interaction.

Other and often institutionally formalized definitions also exist out of the same components. In one of the nature development related policy documents – the one called 'People for nature, nature for people' – 'landscape' is defined as 'a co-production between man and nature. A collective play between soil, water, plant growth and land use' (Ministerie van LNV, 2000). This definition includes holism ('collective' and 'co-production'), dynamics ('play' and 'production') and nature-culture interaction ('man and nature'). Another definition derived from a policy document, namely the one as used in the European Landscape Convention (Council of Europe, 2000), is relatively complete as well, since it encompasses all four components: 'an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. It is this definition, therefore, that is adopted as the definition of landscape in this thesis.
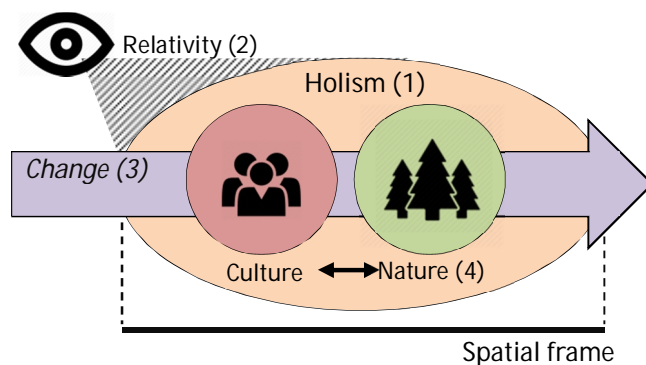
Figure 2.2 – *Schematic display of the landscape definition.*

2.1.2 Landscape & nature

Natural and cultural landscapes

A common used distinction within the landscape-concept is the one between natural and cultural landscapes, introduced at the end of the 19th century by the German geographer Friedrich Ratzel and further elaborated by – amongst others – Carl Sauer (Antrop, 2007). Critique on this distinction is mainly based on the large grey area between these two extremes (Antrop, 2007). Natural landscapes are mainly a result of action and interaction between natural factors, while cultural landscapes are seen as influenced by human factors as well, or mainly. In fact, the deciding criterion is the intensity of human influence or intervention in the 'action and interaction' that results in the character of a landscape (Antrop, 2007; Renes, 2011). This is a tricky criterion, however, in particular when talking about nature development. In a new nature area, the landscape was and is shaped by human intervention, but the paradoxical consequence is that nature is given free rein after this intervention. To effectively tackle the question when a landscape is natural or cultural, it is necessary to first define the concept of nature.

Defining nature

The nature concept has two common definitions. The first one is nature as something 'was selbst Form gewinnt und sich von selbst verändert', a definition based on philosopher Aristotle (Trepl, 2012, p.14). This material perspective on nature has 'culture' – as something that gets shape by humanity – as its counterpart. The second definition of nature is known as the formal or logical concept of nature, which is based on Kant and can be summarized as 'das Dasein der Dinge' at its shortest (Castree, 2005; Trepl, 2012). It is the formal definition that is adopted in natural sciences: nature is seen as both material and immaterial things that are determined by general laws. In the sentence 'the nature of nature', the latter refers to the material nature concept (think of a primeval forest, for example), while the first addresses the essence of the material definition: the primeval forest as an object of study, subject to general laws. The material definition of nature is used as the main definition in this thesis, since it is closest related to what is meant by nature in the phrase 'nature development'.

Categorizing nature

Since the material definition of nature explicitly stresses the lack of human influence in the landscape genesis, it implicitly inhabits a perspective on nature in relation to culture. The idea of nature being something outside culture is the dominant view on nature in the western world, grounded in the Judeo-Christian tradition that has influenced Renaissance and modern perspectives (Anderson, 2010). A nature area lacking human influence is closely related to the concept of wilderness. However, since almost no place exists in the Netherlands anymore were indirect or direct human influence is lacking, a nuanced categorization is made based on the degree of human influence in a nature area. This categorization is based on the wilderness trichotomy that is elaborated by Wolf (2012) and is displayed in figure 2.3.
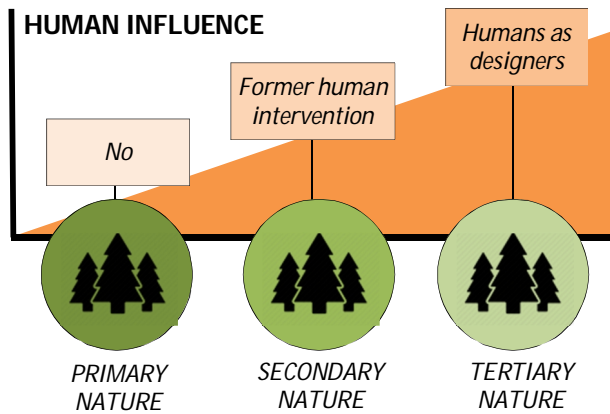
Figure 2.3 – *Primary, secondary and tertiary nature.*

Primary nature is nature that lacks human influence in the most pure sense of the word: mainly historical nature that existed before humans started to live sedentary, for example the primeval forests as named before. Secondary nature is extensively or not used by humans as well, but is caused after human reclamation or intensive use of the area: its character is heavily influenced by earlier human interventions or land use. Examples are heath and former forestry forests. The essential difference between secondary and tertiary nature is that tertiary nature has been created or occurred consciously: nature as a land use chosen and guided by humans, whereas secondary nature occurred unintentionally. Ecological processes are given free rein in a tertiary nature area, but these processes have been fostered by human intervention and remain guided are managed to a certain extent.

New nature

In terms of the nature trichotomy, nature development encompasses the development of tertiary nature since it is has been a conscious human decision to let ecological processes occur. That human action is a crucial aspect of nature development is highlighted as well in the formal definition of nature development as a 'human intervention in nature and the landscape and regulation of user activities, targeting a desired ecological (landscape) development' (LNV, 1990, in RIVM, 2002). A broader definition of nature development is provided by Gorter and Piek (1995), stating that it is the enlargement of the ecological value in – until recently – not-nature areas. A third definition is given by Londo (1997) wherein he emphasizes the (partly) spontaneity of the nature development process and the improvement of ecological values that this will bring. A number of components return in almost all the definitions of nature development: the consciousness of the human intervention, ecological values as the main goal of the intervention and the fact that the concerning area did not have a formal nature destination before. Furthermore, an important component is the change of the landscape that is its result, as the definition of the LNV already encounters. Taking these elements together, the definition of nature development as used in this thesis is the following: 'a landscape development, in which tertiary nature is created by human intervention in an area that had no previous nature destination, with as main goal the strengthening of ecological values in that area'. The degree of autonomy of the ecological processes in such an area can vary, with full spontaneity on the one end and influential human management on the other.

2.1.3 Evolving landscapes

Landscape dynamics

In the definition of landscape that was given in paragraph 2.1.1, the dynamic nature (nature in its formal meaning) of landscape was one of the essential components. Landscape has both a spatial and a temporal dimension wherein the dynamic 'action and interaction of natural and/or human factors' manifests. The result is a changing (character of the) landscape. When humans are indeed involved in this interaction as a factor of influence, we can speak about a changing cultural landscape: 'humans have always adapted their environment to better fit the changing societal needs and thus reshaped the landscape' (Antrop, 2005, p.25). Processes of change can occur on different time scales. Strictly natural processes are often of relative long duration, like plate tectonics, ice ages and volcano eruptions. Humanly induced forces of change can be mining, farming, suburbanization and economic activity (Marcucci, 2000).

History of landscape changes

To place nature development in the history of landscape changes on a macro-level, two models of landscape change are combined and elaborated here: the three periods of landscape change by Antrop (2005) and the periodization of anthropogenic impact on landscapes by Londo (1997). Antrop describes the development of European cultural landscapes throughout history and distinguishes three periods: traditional landscapes, landscapes of the revolutions age and post-modern new landscapes. Traditional landscapes are rather stable, pre-industrial landscapes from before the 18th century. The landscapes of the revolutions age are the result of expanding industrialization and cities and both demographic and economic transitions, often wiping away the traditional landscapes. Post-modern new landscapes emerged after the Second World War due to globalisation and urbanization and are, in contrast to the traditional ones, highly dynamic.

Londo speaks of four periods within the Netherlands, differing in the degree and nature of human influence on the landscape. In the natural period from before the Middle Ages, people had minimal impact on the landscape. This changed during the medieval period by an increasing agriculture, reclamations and developments in water management: a semi-natural period got shape. From the second half of the 19th century, fertilization, mechanisation, ongoing reclamations and other changes preluded the cultural period, with almost all land being in human agricultural use. The last landscape transition occurred after the Second World War, when urbanisation, industrialisation and an increasing population led to the urban period. The models of Antrop and Londo are elaborated on a different spatial scale, but can nevertheless well be aligned. In figure 2.4, this is done, including the incorporation of the nature trichotomy.

Nature development as a backlash

The tendency to conserve nature and ecological values first occurred to a significant extent in the Netherlands in the early 20th century as a reaction on the industrialization in the cultural period (Londo) or revolutions age (Antrop) (Van der Windt, 1995). In the early urban period (Londo) or early post-modern period (Antrop), ecological values further decreased due to mechanisation and urbanisation. Especially land reclamations, polderizations and land consolidation policies heavily changed the landscapes of the cultural period: in order to increase the agricultural productivity, large parts of the countryside were rationalised (Janssen & Knippenberg, 2008; Voogd et al., 2012). Janssen & Knippenberg speak of a productive landscape. The reaction to this major landscape changes and ecological deprivation was a growing political
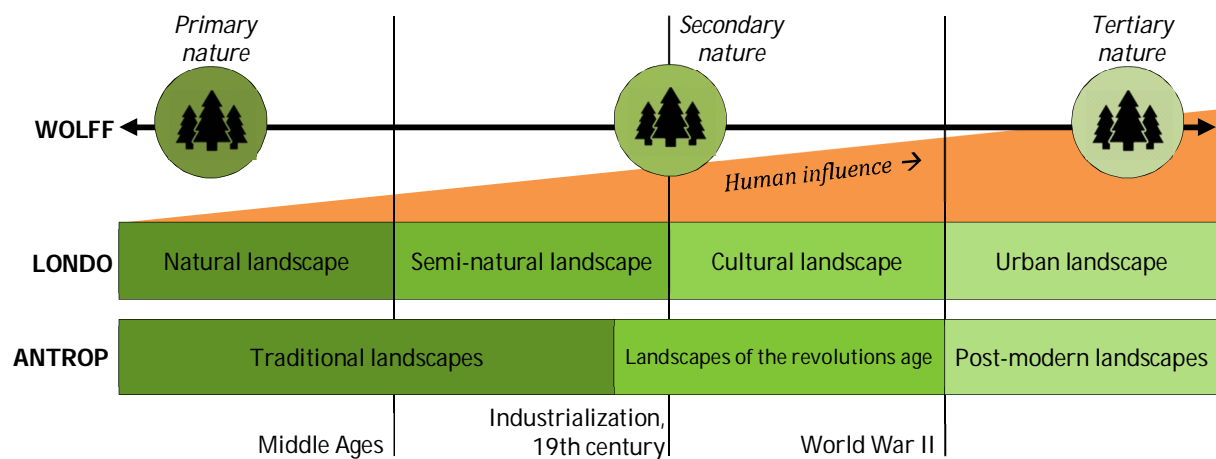
Figure 2.4 – *Model of landscape change (based on Antrop, Londo and Wolf).*

concern for nature, ecology and landscape. The EHS-policy from 1990 onwards can be seen as a manifestation of that growing concern, regarded as a proactive or 'offensive rather than defensive landscape approach to conservation by creating 'new nature' (Janssen & Knippenberg, 2008, p.19; Swart et al., 2001). In the model of landscape change, nature development can therefore be understood within the context of the last – urban or post-modern – period and as a reaction to the ecological deprivation that occurred throughout the 20th century.

2.1.4 Social-Ecological Landscapes

Social-ecological systems theory

In the previous paragraphs, landscapes have been framed as 'areas, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors' (Council of Europe, 2000). In other words: landscapes are spatial products, co-produced by the interaction between culture and nature. Or: a co-production between complex social systems and ecological systems. An ecological system is defined as an interdependent system of organisms and biological units, which mutually interact (Anderies et al., 2004). A social system, on the other hand, is 'a diverse set of institutions and behaviours, local interactions between human actors, and selective processes, that shape future social structures and dynamics' (Folke et al., 2005, p.443). A simple illustration is a forest, in which trees and animals are forming the ecological system. Examples of social (sub)systems are the logging industry, the tourism industry and local communities.

Since humanity has an increasing ability to shape ecosystems on the one hand, and human activities rely on ecosystems and environmental assets on the other, social and ecological systems are more and more studied as coupled systems. In this respect, Berkes and Folke introduced the term 'social-ecological system' (Berkes & Folke, 1998; Folke et al., 2005). A SES can be defined as 'a subset of social systems in which some of the interdependent relationships among humans are mediated through interactions with biophysical and non-human biological units' (Berkes & Folke, 1998, p.18). A basic model of a SES consists out of at least three components: the resource units, the resource system and the resource users (Anderies et al., 2004). A governing, managing or public infrastructure providing component is added by many scholars as a fourth component (Anderies et al., 2004; Ostrom, 2009) (see figure 2.5).

Figure 2.5 – *Social-ecological systems framework. The SES-model includes resource units, a resource system, users and a governance system. All are interacting subsystems of the social-ecological system. Figure derived from Ostrom (2009, p.420).*
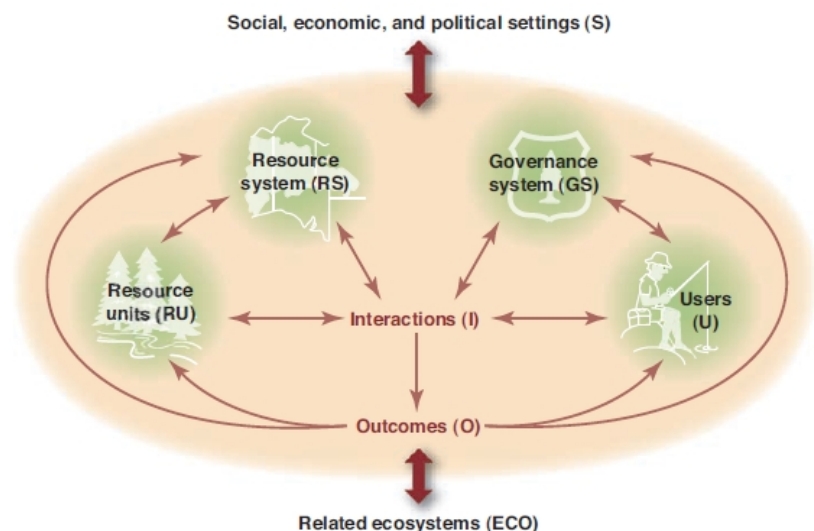
Ecosystem functions and services

To better understand the interactive relationship between social and ecological systems within SESs, the concept of 'ecosystem services' is introduced here. Ecosystem services are emanated from ecosystem functions, defined as 'the capacity of natural processes and components to provide goods and services that satisfy human needs, directly or indirectly' (De Groot et al., 2002). Important to note is that ecosystem services do not refer exclusively to economic interests, but can as well be intangible (PBL, 2010). Figure 2.6 provides an example of ecosystem services in The Netherlands. Four types of ecosystem services are distinguished (Hein et al., 2006; PBL, 2010):

1. Producing services: ecosystem as a resource for products, like food, water and wood.
2. Regulating services: the use of regulating processes in ecosystems for human purposes.
3. Cultural services: intangible services, like usage for recreation, health, scientific purposes and inspirational or spiritual means.
4. Supporting services: services which are necessary to ensure the sustainability of the other three types of services, like the nutrient cycle and soil formation processes.
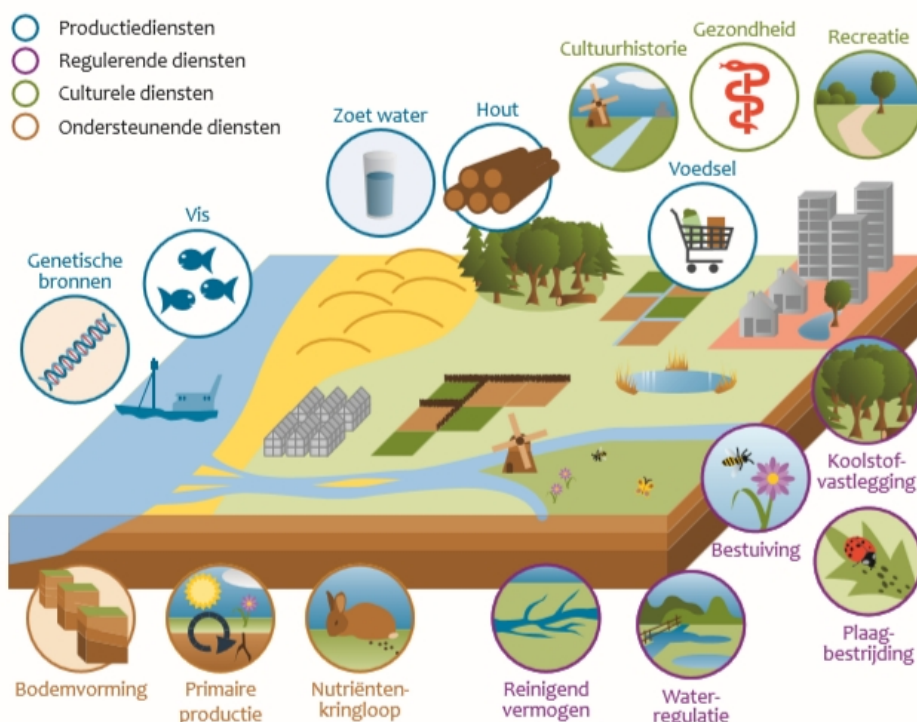
Figure 2.6 – *Ecosystem services in the Dutch context. Figure derived from PBL (2010).*

Resilience, adaptability and complexity

Besides the integrated approach to social and ecological systems, a number of other characteristics are important. A key notion within the SESs-approach is resilience, defined as 'the capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks' (Folke et al., 2005, p.443; Folke, 2006). In other words: a SES is resilient when it can endure change and crises and its functions can be sustained on the long term. The adaptive capacity is an important aspect of the resilience of SESs (Folke et al., 2005). Adaptability is defined as 'the collective capacity of the human actors in the system to manage resilience' (Walker et al., 2004, p.7). The notion of adaptability provides a smooth bridge to another fundamental aspect of the SESs approach: SESs are seen as complex adaptive system, defined as 'complex behaviour that emerges as a result of interactions among system components (or agents) and among system components (or agents) and the environment. Through interacting with and learning from its environment, a complex adaptive system modifies its behaviour to adapt to changes in its environment' (Potgieter & Bishop, 2001, in Rammel et al., 2007, p.10).

Social-Ecological Landscapes

To recapture: landscapes and landscape change are the spatial resultants of interaction between social systems (culture) and ecological systems (nature). By distinguishing resources, users and governing entities within SESs, this interaction is taken into consideration, especially by the notion of ecosystem functions and services. In this thesis, the landscape concept and its producing systems are jointly referred to as Social-Ecological Landscapes, which therefore includes governance systems as well. The next section focusses on theories on the governance aspects of SELs, implying that nature development is an example of such governance.

2.2 Societalization of SEL-governance

Nature development is understood as an example of interaction of nature and culture, wherein governments decide to change land use in order to change the character or spatial quality of a landscape. It fits well to the definition of landscape planning according to the Council of Europe: 'a strong forward-looking action to the strengthening, restoration and creation of landscapes' (Antrop, 2007, p.257). When talking about the governance of SELs, governance is understood in its meaning of 'steering' here, being an 'institutional approach dealing with regulatory structures' or 'a more or less fragmented or integrated "system of rule" (Penker, 2009, p.948). The central issue in this second section of the theoretical chapter is the societalization of governing the landscape. Therefore, the landscape is studied here as a 'social-ecological landscape': a landscape that is not only shaped by natural or economic forces, but by social, institutional and cultural forces as well. It is conquered in two offensives, reflected in two paragraphs: the first on governance in relation to social-ecological systems and sustainability (2.2.1) and the second on co-governance as an elaboration of societalized governance (2.2.2).

2.2.1 Governance & sustainability

Governing the commons
The increasing globalisation and intensification of human activities on earth often made people decide to further absorb the natural resources in order to increase the production and to reduce fluctuations and uncertainty (Folke et al., 2005). This short-term reaction often leads to SESs that are out of balance and are in danger to collapse. Hardin explains the collapse of SESs due to overuse as the 'tragedy of the commons', which he suggested to overcome by restricting the 'freedom to breed' (Hardin, 1968). However, in her book 'Governing the commons', Ostrom provides less rigorous thoughts on how to overcome Hardin's tragedy, or in her own terms: 'Common Pool Resource problems' (Ostrom, 1990). Ostrom believes that the commons cán be governed. However, she rejects a central government as external controller, as well as a fully privatized market. Ostrom refers to social contracts or arrangements that resource users can come up with themselves, emphasizing the promise of self-governance and referring to herself as a 'new institutionalist' (Ostrom, 1990).

Sustainability and the social pillar
Sustainability is most often referred to by the definition of the Brundtland report: 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland Commission, 1987, p.41). In the light of SESs, sustainable development – freely translated – refers to the durability of resources that satisfy the needs of users. However, the sustainability of SESs has been interpreted in two contrasting ways during the last decades. On the one hand the strong and ecologically based form of sustainability, and on the other hand weak and economically based sustainability (Parra, 2013). This dichotomy between ecology (planet) and economy (profit) forgets, according to Parra and colleagues, the third P: people. The social pillar bridges the unilateral focus on economic systems or ecological systems by incorporating the complex systems of social and institutional relations. This leads to the integrative perspective on these systems as revealed before: SESs theory, with governance as a central concept (Ostrom, 2009; Parra, 2013; Parra & Moulaert, 2011).

Social innovation
The plea to reinforce the role of the social pillar can be seen in line with Ostrom her notions on governing the commons to prevent SESs from collapsing. In other words: to develop adaptive, robust and resilient SESs, in order to ensure their sustainability. In this respect, social innovation is a central concept. It means the innovation of governance strategies – for example in the form

of new strategies, organizations, institutions, concepts and ideas – in order to better satisfy the human needs as mentioned in Brundtlands definition (Parra, 2013; Swyngedouw, 2005). Especially social innovations within governance systems are important, since governance can be described as 'the fundamental engine of the sustainability system' (Parra, 2013, p.145). Parra and Moulaert (2011) note three concrete starting points of social innovation in SES-governance: involvement of different actors, amongst different scales, with the local level as the most important governance level for fostering sustainable development. The different actors have different human needs, ideas on spatial quality and ecosystem services in relation to the resource system. The consequence is the need of an integrative and interactive planning approach, in order to ensure a socially sustainable and resilient SES for all actors and users involved (Parra & Moulaert, 2011; Rapoport, 1970). In figure 2.7, the notion of social sustainability is schematized within the SEL-model: it refers to the role of society – whether by direct representation or indirect influence – within the governance of SELs.
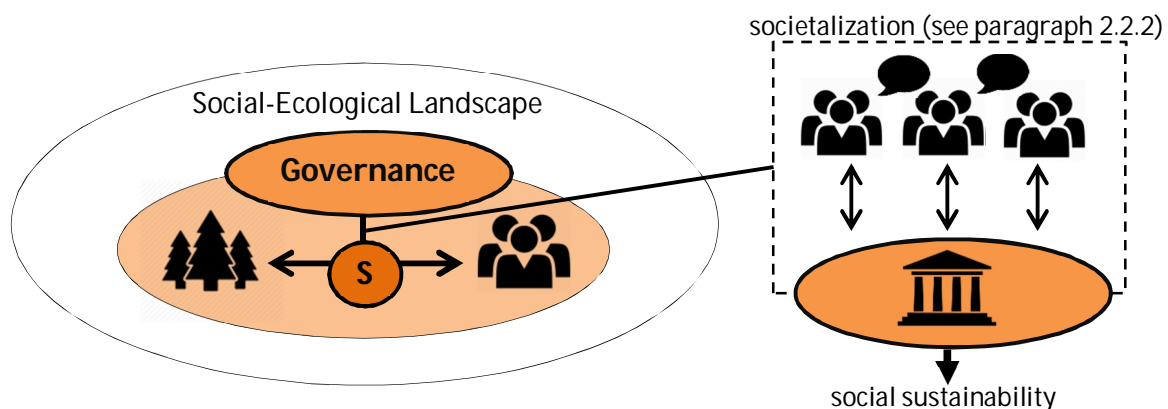
Figure 2.7 – *Social sustainability and societalization in the SES-model. Social sustainability as the outcome of societalization (see paragraph 2.2.2) or, in other words, the involvement of society in the governance of social-ecological landscapes. The circle with the capital S in the left figure stands for sustainability within the SEL.*

From government to governance

To sum up: in order to deal with SESs in a socially sustainable and resilient way, it is important to take the users of the resource into account, together with their interests, values and their thoughts on spatial quality (Cash et al., 2006; Parra, 2013; Rapoport, 1970). Numerous authors refer to upcoming forms of co-governance or multi-actor governance in this respect. The so-called shift from government to governance means that the 'governing role' in a social-ecological landscape moves from the formal governing authority towards the inclusion of other, non-state actors: 'governing-beyond-the-state' (Swyngedouw, 2005). There are two types of non-governmental actors: market actors and actors in civil society (Driessen et al., 2012; Swyngedouw, 2005). This inclusion of actors beyond the state is the horizontal shift to governance, whereas the vertical shift refers to decision making responsibilities that are spread over different administrative levels (Keulartz et al., 2004). Therefore, the government-governance shift is closely related to the shift from top-down towards bottom-up planning.

Background in planning theory

The government to governance shift and the inclusion of the 'social' in decision making processes can be aligned with the shift in spatial planning from a technical rationality towards a communicative one. De Roo (2007) argues that in post-war Europe, there was a strong need for certainty and control after a devastating war, also in planning. A period of spatial planning followed with a technical or instrumental rationale, also referred to as blue-print planning, characterised by thinking in absolute truths and rationally attainable social orders (Allmendinger, 2009). An important criticaster of the technical-rational approach is Jürgen

Habermas, whit his notion of communicative action (Johnson, 1991). The essence of communicative action is that what is done, so how people think, act, react, decide, is based on a process of interaction between the different people, groups or organizations that are involved (De Roo & Voogd, 2004). In other words: people have an intersubjective understanding of the world; planning issues therefore are human abstractions instead of objectively perceivable truths (Allmendinger, 2009; De Roo, 2007). In short, there has been a transformation from an object-oriented planning to a style of planning oriented on intersubjectivity, also called the communicative turn in planning.

Consensus building

One of the implications of this communicative turn is the awareness that all knowledge is socially constructed. People have different interpretations, preferences, interests, stakes, values, expectations concerning space – in other words: a degree of dissensus exists, almost by definition (De Roo, 2007; De Roo & Voogd, 2004). With her notion of collaborative planning, Patsy Healey (2006) states that stakeholders should be involved in the decision making process in order to build consensus and capacity for planning interventions. This is exactly in line with Allmendingers definition of communicative rationality: 'breaking down the dominance of scientific objectivism and building instead a different kind of objectivity based on agreement between individuals reached through free and open discourse' (Allmendinger, 2009, p.200). In the next section, it is explained how consensus building relates to societalization and how it can be concretized and evaluated when looking at examples from the Dutch nature development practice.

2.2.2 Societalization & co-governance

Societalization and consensus building

In the governance of nature development in Social-Ecological landscapes, as studied here in the Dutch context, societalization is a key concept. The term has been coined both by Van der Windt et al. (1997) and Buijs (2009), and refers to the inclusion of social values in Dutch nature policy, besides existing and established ecological values. A way to arrange this is the inclusion of actors from society in the governance process, for example in the form of policy arrangements: 'policy itself has become more intimately intertwined with "external" stakeholders from civic society and business' (Buijs, 2009, p.18). In figure 2.7 in paragraph 2.2.1, societalization has been schematized in relation to the basic SEL-model, showing that social sustainability is an outcome of societalized governance. Co-governance – therefore – has the promise to force different actors in society to conduct dialogue and build consensus on their opinions concerning nature development and spatial quality. Since the launch of the 'Nature for people, people for nature'-policy in 2000, a clear intention has been expressed by the ministry to societalize nature policy, amongst others by collaboration with a wide range of stakeholders (Ministerie van LNV, 2000). This is exactly the relation that lies in the heart of this master thesis and logically is reflected in the main research question: what is the role of co-governance in the societalization of nature development projects? Based on the Social-Ecological Landscape model as the theoretical framework so far, the remainder of this paragraph elaborates the relation between co-governance and societalization, resulting in an understanding of the determinants of societalization that are guiding in the empirical part of the research.

Twofold of societalized governance

Involving people and their positions, values and interests into spatial planning – in other words: 'societalizing' nature development planning – means they and/or their ideas should be involved in a certain extent in the decision making process. To make the notion of societalization more tangible, it is split up in two main elements: the societalization of the organisation or institutional setup of the governance process and the societalization of the decisions themselves, thus dealing with the substance of governance. This twofold is derived from Arnouts et al.

(2012) and Kooiman (2003) and their writings on the policy arrangement concept. A policy arrangement (PA) can be defined as 'the temporary stabilisation of the content and organisation of a policy domain' (Arts et al., 2006, p.96). Arnouts et al. (2012) adopt this definition, in which the organisation and the content are seen as the two main components of a PA. The first can furthermore be divided in the actors, the power distribution and the rules within this organisation, also referred to as the governance arrangement (GA). The latter chiefly deals with the discourse within the decision making process, also with the degree of consensus in this process.

The PA-model is a model for policy domains in general, but can be applied to decision making on spatial planning by aligning it to the action-oriented approach to planning, as elaborated by De Roo (2003). De Roo distinguishes three elements in decision-making and planning: the material object (M), in which an intervention is planned to achieve certain goals; the choices that are made in the decision-making process (D), and the communication and organisation of and the participation in this process: the institutional side of planning (I). In the case of nature development planning, the material object is the landscape: the goal is to transform agricultural into nature. The decision making process naturally leads to a decision on how to intervene, like which type of nature to create and which people to relocate. Therefore, the societalization of the content of governance takes place in both the material world and the decision making process. The institutional part (or governance-side) relates to the process: which actors are involved, in what kind of arrangement and how does the process evolve? This links up to the organisation of governance. In figure 2.8, the PA-model is explicitly linked to the action-oriented approach. In the remainder of this paragraph, both components of the twofold are discussed in more detail.
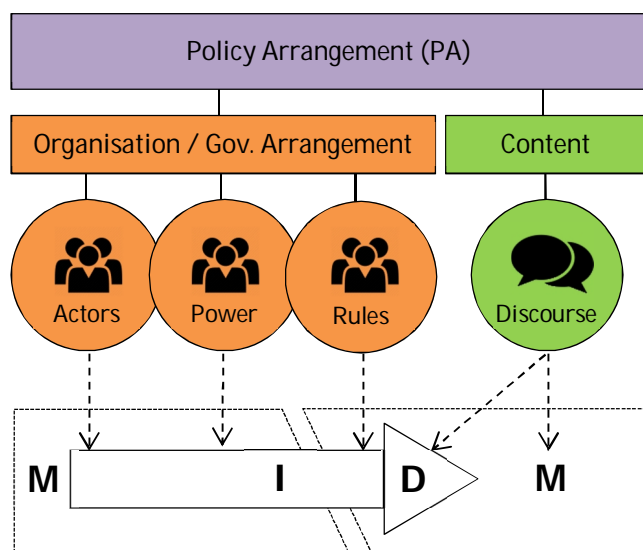
Figure 2.8 – *The PA-model aligned with the action-oriented planning approach. The organisation of the policy arrangement, also referred to as the governance arrangement, corresponds with the institutional side of planning (I). The content of the PA can be found in both the decisions that are being made (D) and the material world (M) in which these decisions have their consequences.*

1. Societalization of the governance organisation

In the actor dimension, governmental and non-governmental actors can be distinguished, as well as coalitions between actors striving for the same goals. Non-governmental actors can furthermore refer to two types of actors: market actors and actors in civil society (Driessen et al., 2012; Swyngedouw, 2005). The power dimension stresses the power division amongst the actors and the resources they can rely on in terms of legal means, property or money. The rule dimension focuses on the role division between actors and the related formal and informal rules and routines, including policies and laws. Together, the actor, rules and power dimension are forming the so-called governance arrangement.

Kooiman (2003) developed three ideal types of so-called governance arrangements, differing by the extent to which governmental and non-governmental actors are involved in governance: hierarchical governance – a main role for governmental authorities, other actors are submissive,

co-governance – both governmental and co-governmental actors are working together, divided by Arnouts et al. (2012) in open and closed variants based on the restrictedness and fixedness of the relations, and self-governance – the predominance of non-governmental actors (figure 2.9). In short, a shift in Dutch nature policy is directing from the left half to the right half of the spectrum: a shift towards a societalization of nature policy or towards 'new governance' (Arnouts et al., 2012; Buijs et al., 2014). As mentioned earlier on, the governance shift is twofold. The first is the horizontal one, capturing the shift of power from strictly governmental actors to non-governmental actors as well (Driessen et al., 2012; Keulartz et al., 2004; Swyngedouw, 2005). The second is a vertical one and concerns the administrative levels on which the governing state-related authorities act. Nature policies increasingly emanate from the supranational level on the one hand and the sub-national and regional level on the other, instead of from the national level only (Keulartz et al., 2004).

| Hierarchical governance | Closed co-governance | Open co-governance | Self governance |
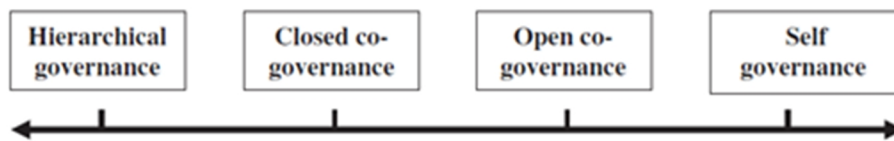
Figure 2.9 – *The governance continuum (visualised by Arnouts et al. (2012).*

2. Consensus amongst the governance content

The second determinant of societalization is the degree of support amongst the field of relevant actors, both in and outside the policy arrangement. In other words: to which extent has consensus been built on the plans that are originated from the decision making process. Planning has explicitly been framed as a consensus building process, often referred to by collaborative and/or communicative planning in that respect (Healey, 2006). Fisher & Ury, for example, wrote about the principled negotiation method as 'focusing on basic interests, mutually satisfying options, and fair standards [which] typically results in a wise agreement' in their article called 'Getting to Yes' (Fisher & Ury, 1983, p.21). In line with the early writings of Fisher & Ury, Innes & Booher are likewise emphasizing the need of consensus building as a strategy to deal with conflict (Innes & Booher, 1999a; Innes & Booher, 1999b). They furthermore associate collaborative planning strategies as a 'societal response to changing conditions in increasingly networked societies, where power and information are widely distributed' (Innes & Booher, 1999a, p.412). This reference to a changing society links op to the trends towards bottom-up planning, decentralisation and new governance modes (Rotmans, 2014).

The Mutual Gains approach (MGA), with Lawrence Susskind as one of its founding fathers, has been very influential in both theories on and practices of consensus building in planning (Susskind & Landry, 1991). The MGA is characterised conflict as problems that should not be solved by focusing on the positions of the actors involved, but on solutions that embrace mutual gains on the interest level (Wesselink & Paul, 2010). In the case of a common resource that faces change, the ecosystem services on which actors rely will be strongly related to both the positions and interests of the actors. Next to interests, also values concerning landscape and landscape changes, like nature development, are important to understand the positions of actors. Keulartz et al. (2004) argue for the role of values in implementing nature development in their structuralist approach. They are observing a tendency in nature policies to transform values into functional interests, however, 'because of the curtailment of public deliberation and political decision-making that goes along with it, is not an adequate answer to the problem of pluralism' (Keulartz et al., 2004, p.82). Instead, they hold a plea for a state of 'equal coexistence' of parties with differing values towards, for example, nature, as a democratic approach which is preferable above the 'tyranny of the majority'. The threefold approach to the viewpoints of actors, encompassing positions, interests and values, is referred to as the 'golden triangle', as elaborated in figure 2.10.

Figure 2.10 – *The 'Golden Triangle'-model* (Bos et al., 2013; Wesselink & Paul, 2010)*. This example features two actors. Although the positions of both actors are different, their interests and values partly overlap as shown by the black triangle with the white plus, illustrating 'mutual gains'.*
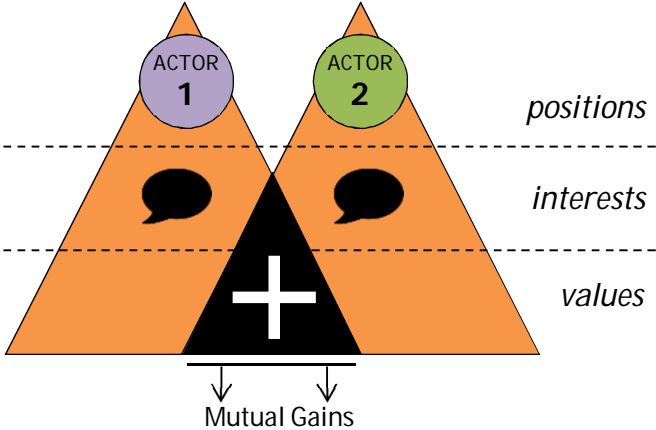
2.3 - SEL as a conceptual model

Nature development is not just a change in the physical reality, but is changing the social-ecological landscape as a whole. In the dense Netherlands, the social subsystem with users and stakeholders is almost by definition complex, with numerous different positions, interests and values being involved in the same planned landscape change. This is what makes the role of governance so crucial for understanding the societalization of the implementation of Dutch nature policy. In the conceptual model that is assembled in this final section of the theoretical chapter, therefore, the landscape is framed as a social-ecological interplay with governance as a main component. Both the notions of societalization and social sustainability are made clear by elaborating this model. The SEL-model is displayed on the next page (figure 2.11). It features six stages, which are briefly recaptured in table 2.1 below, thereby summarizing section 2.1 and 2.2 and furthermore linking the research (sub) questions to the theories as exposed in this chapter.

Nr.	Element	Description	Paragraph(s)	Question(s)
1	Nature development and landscapes	Nature development framed as a landscape change, with landscapes defined as the spatial result of a co-production between culture and nature. The landscape is explicitly seen as evolving and changing, therefore with its history as important to consider.	2.1.1, 2.1.2, 2.1.3	Q1
2	Social-Ecological Landscapes and their governance	The landscape as spatial concept wherein social-ecological systems are functioning and interacting, featuring users, resources and governance systems.	2.1.4	
3	Societalization of SEL-governance	Societalization as the involvement of society as a whole its societal values in the governance of SELs.	2.2.1	
4	Societalization of the governance organization	The first mode of societalization, referring to the organisation of the (co-)governance in terms of actors, power and rules, together forming a governance arrangement.	2.2.2	Q2
5	Societalization of the governance content	The second mode of societalization, referring to the substance of the decisions that are made and the degree in which these reflect the positions, interests and values of the different users or actors.	2.2.2	Q3
6	Socially sustainable landscapes	Social sustainability as the outcome of societalized SEL-governance, meaning that the social pillar of sustainability is incorporated in the decision making process and that the SEL-governance can count on societal support.	2.2.1	

Table 2.1 – *The conceptual model explained.*
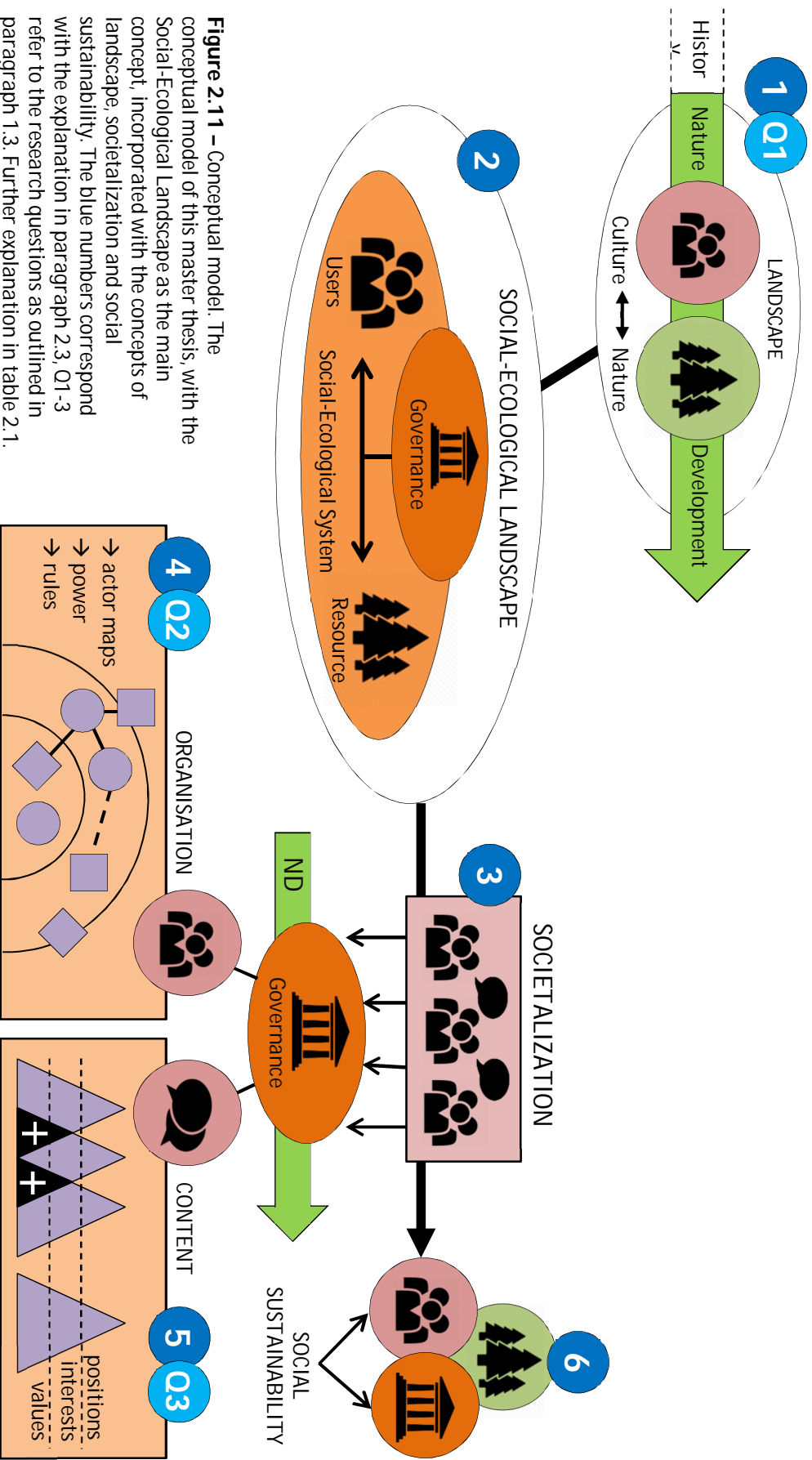
Figure 2.11 – Conceptual model. The conceptual model of this master thesis, with the Social-Ecological Landscape as the main concept, incorporated with the concepts of landscape, societalization and social sustainability. The blue numbers correspond with the explanation in paragraph 2.3. Q1-3 refer to the research questions as outlined in paragraph 1.3. Further explanation in table 2.1.

LANDSCAPE

Histor y.

Nature

Culture ↔ Nature

Development

SOCIAL-ECOLOGICAL LANDSCAPE

Users

Social-Ecological System

Governance

Resource

ORGANISATION

→ actor maps
→ power
→ rules

SOCIETALIZATION

ND

Governance

CONTENT

→ positions
→ interests
→ values

SOCIAL SUSTAINABILITY

De Onlanden on the map

Picture by author (2015)

3. Methods

The societalization of nature development policies is an ongoing process, which takes very different forms across the Netherlands. To get grip on governance approaches and the extent to which they facilitate a societalized nature development, two cases have been studied. These case studies form the main methodology of the empirical part of this research. Interviews have been held to get insight in the NDP's and the role of the most relevant actors within, accompanied by an actor mapping method and policy document study.

In figure 3.1, the methodological model is schematized, as an extension of the research design in figure 1.3. The three sub questions are linked to the methods used and the paragraphs where the results of each question are discussed. Question two is answered by using a combination of all three methods, whereas for the first, mainly descriptive sub question, policy documents were the main source. Question three is mainly answered by actor interviews. In paragraph 3.1, the case study methodology is discussed. In the remaining three paragraphs, the methods themselves are put forward. The main method – interviews with relevant actors – is covered by 3.2, the actor mapping method by 3.3 and the study of policy- and other documents by 3.4. The case studies themselves are introduces in more detail in the next chapter.
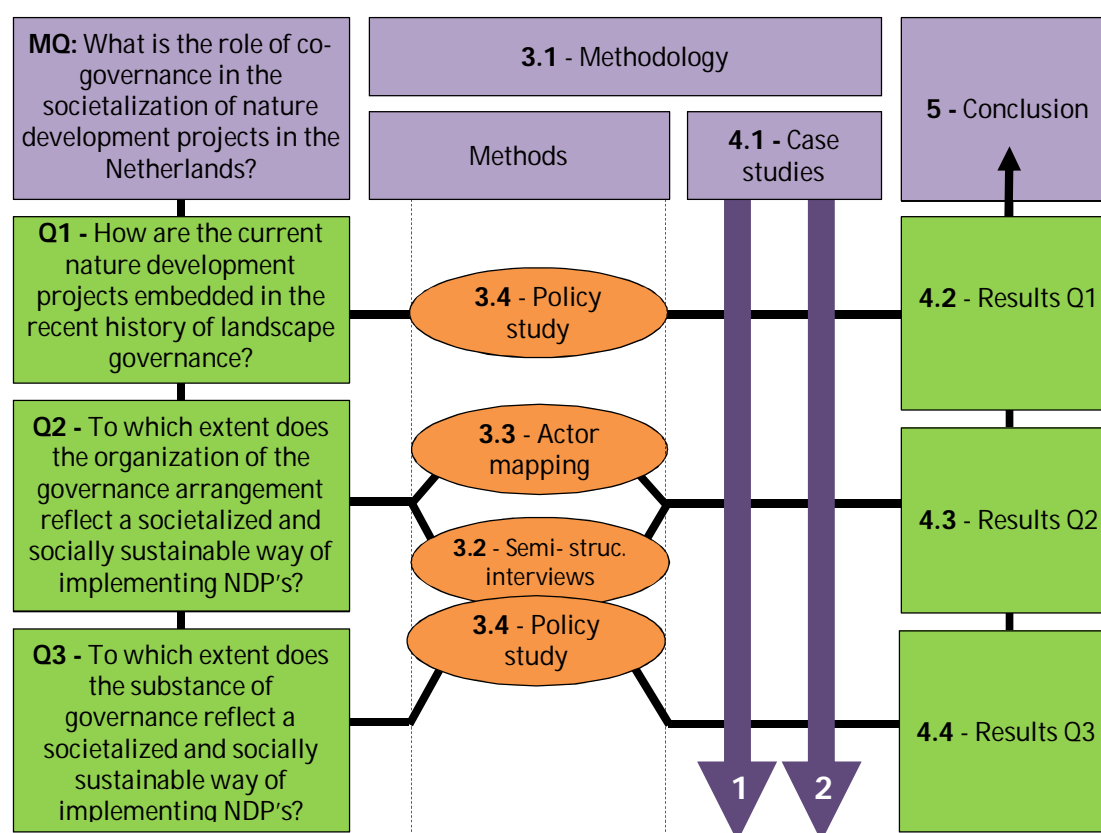
Figure 3.1 – *Methodological model.*

3.1 Case study methodology

Since the early 1990s, hundreds of nature development projects have been started in all corners of the country, aligned to the NEN-policy. To generate a general and nationally valid set of conclusions concerning all these projects, which are all unique and localized of nature, is hardly possible. There are large differences between the specific type of nature created, the size of the new nature areas, the way the project has been embedded in the policy context and the degree in which the landscape characteristics have changed due to the project. Next to that, the governance dynamics which are the object of study here are complex. For this reason, the main empirical methodological approach in this thesis is the case study. Studying two cases in depth gives this research the opportunity to explore the nature development phenomenon in a nuanced manner, aware of contextual influences. Consequently, the goal of the research is not to make scientifically valid statements for the Netherlands in general. However, based on the case-specific findings, existing theories and knowledge can be refined and assumptions can be raised for further research. In research on the governance of nature conservation policies, case studies on specific projects can more often be found as the main methodological approach (Beunen & De Vries, 2011; Turnhout & Van der Zouwen, 2010).

Case study – the approach
Important to note is that the case study is a methodological approach instead of a method to collect data. Its essence is the value of in-depth understanding of a single manifestation of a phenomenon, also referred to as an idiographic approach, rather than an in-breadth, nomothetic approach (Baxter, 2010). One of the common criticisms of case study research is its inability to provide generalizable knowledge. According to Flyvbjerg (2001), however, the social sciences are by definition dealing with context-related knowledge. Inspired by Aristotle, he lists five common misunderstanding about case studies, of which the lack of generalizability is one, and the superiority of generalized knowledge over concrete knowledge is another. Using the example of the black swan and Poppers falsification theory, Flyvbjerg argues that generalization is indeed possible when studying a single case. In other words: case studies may be less suitable to construct brand new theories and predictions, but are especially useful in testing or generating hypothesis, an activity inseparable from scientific development.

Where are we? De Onlanden & De Burd
The aim of the case study approach here is to provide in-depth knowledge on the societalization in nature development. Two cases have been chosen: project 'De Burd' in the middle of the Dutch province of Friesland, and project 'De Onlanden' in the north of the province of Drenthe, close to Groningen city. Both cases are not analysed separately from each other, but selected with the purpose to compare. The implication of the comparative case study for the case selection is that they should not be chosen at random, but selected in an 'information-oriented' way (Flyvbjerg, 2001). In the first part of the results (section 4.1) the cases are introduced in more detail.

Selection for perfection
A number of criteria were used to decide on the suitability of both cases:
1. Project status - The plans are both finished, that is, the decision making process should is over and the execution of the plan has been started or is ready to start. This implies that ex-post research is conducted. Though, to ensure that the process can be constructed effectively and in detail, it is as important that the projects have ended recently.
2. Land use change – Of course, NEN-designated nature should be developed, here defined as a change in land use. Eventual combinations with other spatial agendas or projects are accepted, as long as this criterion is met.

3. Landscape setting – To avoid different attitudes amongst actors based on the types of nature developed, areas with comparable landscape characteristics were chosen. Either 'De Burd' and 'De Onlanden' are characterized as, low, wet, open, agricultural peatland landscapes.
4. Size – No comparable size is necessary, but it should concern cases of a reasonable size, with a significant impact for the existing land uses and the actors involved. In De Onlanden, 1700 hectare of nature has been developed, as in De Burd, around 300 hectare of agricultural land will be redeveloped to nature.

Besides these criteria, another requirement for the purpose of an adequate comparison was that there is no overlap in the steering actors and originators on the regional and local level. In other words: the institutional setting should be different, in order to increase the generalizability promise of the outcomes of the research. This is met by selecting one case in the province of Groningen and one in the province of Fryslân.

3.2 Semi-structured interviews

In both cases, semi-structured in-depth interviews were conducted with the most important actors for each case. Mainly concerning sub question one and also for two, the interviews were helpful to gain more detailed and more recent insights, complementing the other methods. For answering question three, the interviews were the major source of the information needed, since it concerned normative statements on the actor's positions, values and interests, as well on their personal evaluation of the governance process. The semi-structured nature of the interviews made it possible to ask customized questions and to ask for additional clarification and explanation where needed. In total, twelve interviews were conducted in a period between November 2014 and January 2015.

Semi-structured interviews – the approach

The semi-structured interview can be found on a scale, between two extreme types of interviewing: structured interviews on the one end and unstructured interviews or oral histories on the other. They give the interviewee the chance to ask predetermined or primary questions, together with secondary questions to deepen the conversation on a certain topic (Dunn, 2010). According to Dunn, the strengths of interviewing lie in its ability to investigate complex structures and (institutional) behaviour, as well as to collect meanings, opinions and experiences. That is, unique normative or qualitative data that – when the questions have been formulated with care – perfectly fits the data required for the research. To be able to use the interview as a data source, the raw data has to be refined to into usable data, with the aid of recording, transcribing and coding. By such post-interview analysis, the advantage is that you are able to fully focus on the interaction and content of the conservation (Longhurst, 2010). The steps that had to be taken as a part of the data collection process – six in total – are briefly discussed throughout the next paragraphs (see figure 3.2).
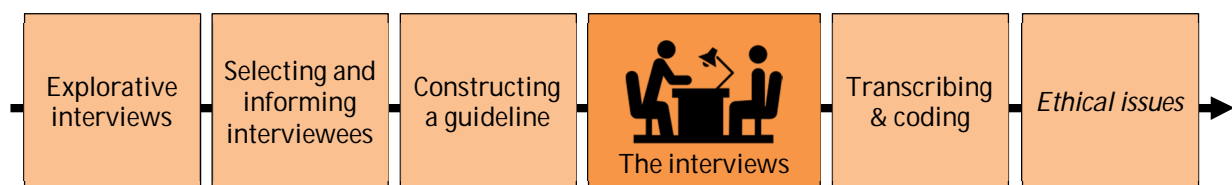
Figure 3.2 – *Course of action in the interviewing process*

Explorative interviews

The empirical phase started with conducting exploratory interviews. These interviews were held with people form the organisations charged with the execution of the nature development projects. For both cases, this is the State Agency for Rural Areas (DLG), an agency which was abolished from 2015 onwards and that used to be engaged with land acquisition in land development and land re-allotment projects. During these interviews, it was possible to experiment with the order, formulation and number of the questions. Also, basic and recent information on the nature development projects could be obtained. The exploratory interview for De Onlanden case – the first interview of all – has been recorded and has been involved in the analysis. However, the exploratory interview for De Burd has not, since the interview was at the same time a consultation on a possible second case in the province of Friesland. In other words, the precise second case was not yet decided on before the interview.

Selecting and informing interviewees

After these introductory and exploratory interviews were held, the potential actors to interview were chosen. The selection was not made beforehand, but the list of interviewees sophisticated during the empirical process. The first actors that were interviewed were actors involved in the

policy arrangement, including initiating organizations and nature management organizations. During this first round of regularly interviews, progressive insight helped to pick next suitable actors to interview. A number of directives were used in the choice which of the actors to interview, like a spread in actors from in- and outside the policy arrangement. Furthermore, actors directly or indirectly representing the most important functions ecosystem services in the area were chosen. Finally, actors and their stakes should be geographically spread and not be clustered in the project area. The number of actors – four in De Burd and eight in De Onlanden – was decided based on covering the major ecosystem services and stakes, as well as on the moment when the knowledge saturation level was reached. The interviewees are listed below.

Nr.	Name	Case	Organisation (profession)	Date
1	John Tukker	De Onlanden	DLG	03/11/14
2	Gerard Zeemans	De Onlanden	Noorderzijlvest	10/11/14
3	Hendrik Smeenge	De Onlanden	LTO (farmer)	13/11/14
4	Jelle Cnossen	De Onlanden	Cnossen Leekstermeer (recreational entrepreneur)	20/11/14
5	Aaldrik Pot	De Onlanden	Staatsbosbeheer	23/11/14
6	Roelof Blomsma	De Onlanden	Dorpsbelangen Roderwolde	03/12/14
7	Barend Buijs	De Onlanden	Provincie Drenthe	10/12/14
8	Jaap Nanninga	De Onlanden	Gemeente Tynaarlo	11/12/14
9	Anton Huitema	De Burd	It Fryske Gea	18/12/14
10	Klaas Bartlema	De Burd	Wetterskip Fryslân	07/01/15
11	Peter Jager	De Burd	Gemeente Leeuwarden	09/01/15
12	Hindrik de Boer	De Burd	(farmer, inhabitant)	10/01/15

Table 3.1 – *List of interviewees*

To make sure the interviewees were well prepared and knew about the goals and objectives if the interview, a short note was send to all the interviewees by email (attachment 1 - preparatory note to interviewees). This happened after the appointments had been made by telephone.

Constructing a guideline

A semi-structured interview contains a main structure which keeps the interviewer on track during the interview. In the interviews held for this research, the structure is the following:
- Introduction to the subject and the research, explanation of the interview design.
- Part 1 – Questions concerning the nature development project.
- Part 2 – Questions concerning the actor point of view.
- Part 3 – Actor mapping.
- Conclusion of the interview, practical remarks and acknowledgements.

Part one, two and three contain a list with a number of guiding questions, all linked to one of more research questions. During the interview, neither the specific order of asking these questions or the precise formulation was fixed, because of the semi-structured nature of the interview. During the exploratory interview, a preliminary guideline was used, which was evaluated and revised later on based on the effectiveness and relevance of the questions asked (attachment 2 – revised interview guideline).

Conducting the interview

The interview itself was held according to the guideline in attachment 2. In the introductory part, the interviewee was asked for permission to record the interview with a smartphone. Also, the interviewee was told how long the interview would probably take. The interviews were all held at the work location or at the interviewee's home, depending on the preference of the interviewee. Conducting the interview at a silent and preferably closed room, at a location where the interviewee feels comfortable, was leading here. To ease the interview when talking about specific objects or sites within the project area, a map was brought to the interview. During the interview, notes were made, complementing the recordings. In the conclusion of the interview,

the interviewee was given the chance to place additional remarks or notes on topics that were stressed during the interview, or concerning the research in general. Furthermore, if desired, the interviewees were promised to receive a digital version of the thesis once finished and graded.

Transcribing the records

To facilitate the analysis of the data obtained during the interview, the recordings of the interviews were transcribed. Besides a written reproduction of the interview, the transcriptions contain notes on relevant non-verbal communication. Informal conversation before or after the formal interview was withhold from transcription, if recorded at all. Due to its time-consuming nature, it was not always possible to start transcribing within two weeks after the interview was conducted. Therefore, the recordings of all interviews were heard within a few days after the interview, resulting in notes on headlines, separately from the transcription later on. A shortened overview of the transcriptions is attached (attachment 3 - transcriptions and actor maps (overview)).

The next step in the interview analysis is the coding of the transcriptions, based on a code tree. This code tree was developed after all interviews were conducted and transcribed. In the code tree, the relevant information is categorised according to the research question or sub question to which it relates. To give an example: for sub question 3c, concerning actor values, 'nature values', 'management values', landscape values' and 'values concerning the project' were amongst the codes. During the coding of the interviews, the initial code tree was further sophisticated. The definitive code tree is attached (attachment 4 – code tree for analysing interviews).

Ethical issues

A number of ethical issues have been taken into consideration, related to the use of interviews as a scientific method. One is the communication with the interviewees about how their answers and words are used in the research process. That is why the interviewees were sent a preparatory note before the interview (attachment 1) and why the research and procedure has clearly been explained directly before the interview was conducted. Furthermore, the interviewees were promised to receive the final version of the thesis after graduation. Another ethical issue is the way in which is dealt with the names of the interviewees: they were explicitly asked for permission to use their name. Finally, recording the interview was not done before explicit permission was given by the interviewee. In one occasion, the interviewee indicated that he did not appreciate the fact that the interview would be recorded. For this interview, relatively detailed notes were made, which were coded likewise as the transcriptions in order to abstract the necessary information.

3.3 Actor mapping

Research question two looks at the organisation of the actor network and the governance arrangement in De Onlanden and De Burd. In the interview guideline, several questions were adopted for gaining this information. However, since both nature development projects are relatively large in size and maturity, an almost endless list of actors can be made up that are in one way or the other involved in the project. Therefore, the actor mapping method is used to derive an overview of the most important and influential actors involved in the nature development project of both cases.

The method conceptualized

Creating an overview of actors involved in a (planning) project, together with their stakes – as in an actor or stakeholder analysis – is a common practiced method with many different ways of how precisely to conduct such an analysis (Bos et al., 2013; De Booij & Hermans, 2012). This depends mainly on the goal of the analysis and type of organisation that conducts the analysis. One of the goals named by De Booij & Hermans that suits the use of the actor analysis in this thesis is 'mapping conflicts and exploring possible coalitions', thereby noting that this is only done passively in this thesis instead of actively mediating in the policy domain. Bos et al. (2013) also stress the importance of analysing stakeholders for successfully managing the social environment ('omgevingsmanagement'). Next to making such an overview, they highlight the importance and the utility of analysing variables like issues, positions, interests and the power relations within the field of actors. Such further analyses based on the actor maps are conducted in section 4.3 and 4.4.

For the actor maps that have been constructed in this thesis, the fundament is formed by the Social-Ecological Landscape-concept, which leans on the theory on Social-Ecological Systems. As, for example, Ostrom (2009) has written, the social subsystem features different users and governance actors that interact with each other and with other sub systems, like the resource system and the resource units within. From this perspective, actor mapping is trying to capture the whole of on the one hand the users and on the other hand the actors (sometimes users as well) that together are forming the governing arrangement.
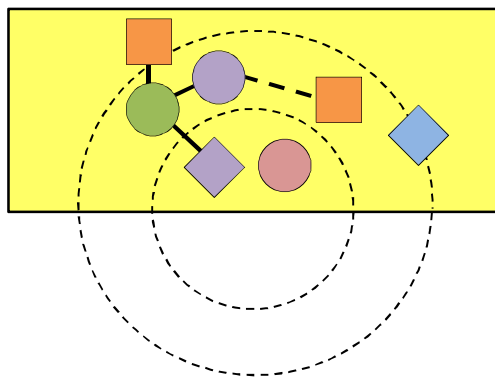
Figure 3.3 – *Schematized setup of the actor maps. Variables: the actor's shape (actor type), colour (main stake), position (scale) and connections (role within the governing coalition).*

To create the actor maps, the interviewees – all actors involved in the case-specific NDP – have been asked to draw an overview of the organizations, institutions and stakeholders that in their eyes are involved in the nature developing process. The details of the technique are covered below. Per case, the actor maps were assembled, creating one actor map with the most cited actors. In the actor maps, as presented in chapter four, only the relatively directly involved

actors have been listed, to limit the number of actors to be mapped. A number of variables are chosen to further identify these actors, listed below and shown schematically in figure 3.3.

- The name of the organisation or the group in society that the actor represents.
- The administrative or geographical scale on which the actor operates.
- The type of actor: governmental or non-governmental, and – if non-governmental – market or civil society.
- The main stake of the actor: general or public interest, nature, water management, agriculture, recreation, culture history or landscape and other.
- If the actor is directly involved in the formal governance coalition.

Mapping in practice

Since it were the interviewees who were asked to draw the actor maps, the list of 'participants' is the same as the one in table 3.1. Drawing the actor map was the third and last part of the interview, in order to make sure that the interviewees are well introduced in the theme, making it easier for them to come up with actors. If the actor maps would have been drawn at the beginning of the interview, the risk exists that the interviewees will start to not just listing the names, but to explain their experiences and give their opinion in this early stage already, thereby possibly disturbing the proposed structure of the interview. An accepted disadvantage of the actor mapping as the last part of the interview is that the actors that are named might be influenced by the content of the interview.

The precise task the interviewees were given was to provide an overview of the actors, sometimes referred to as organisations, institutions, parties and/or stakeholders as well, that were directly or indirectly involved in the NDP. They were given an empty sheet of paper, but were free to decide how to list or draw the actors. When the so-called 'first version' of the actor map was finished, the interviewer asked questions to clarify and specify the role and activities of certain actors. Furthermore, follow-up questions were asked to make sure that no actors would miss out due to a misunderstanding of the actor mapping task, like 'which actors or stakes can be found outside the administrative committees?' and 'are there unrepresented groups of people which activities are affected by the NDP?'. In two of the twelve interviews, the actors were assisted by drawing the actor map, because they hesitated to start or did not take the initiative to write down the actors they named. A register of the actor maps is attached (attachment 3 – transcriptions and actor maps (overview)).

This third part of the interview was not transcribed, except when additional information to the first and second part of the interview was given during the actor mapping phase. Based on the separate actor maps, the actors who were named more than once were listed. Actors who were named only once were traced and added or rejected based on own judgement. Next, the identification of the actors, following the variables as stressed in figure 3.3, took place by using the information given by the interviewees and texts from the policy documents and newsletters.

3.4 Policy & document study

Policy documents and newsletters on the case-level have been studied as supporting sources for answering the research questions. Especially for question one wherein a landscape governance timeline in sketched, for question two on the actor network and policy arrangement design and for the case study introductions (paragraph 4.1), the policy documents provided necessary additional, factual and mainly descriptive information. A global quick scan through the selected documents has been made based on the interview code tree, even though not explicitly documented. Besides the main policy documents, for both De Onlanden and De Burd, a number of available newsletters were included in the quick scan. A complete list of the concerning documents is available in attachment 5 (attachment 5 – List of relevant (policy) documents).

De Burd

Picture from DLG Friesland (2000)

4. Results

In the results, the findings on the research questions are discussed in the form of comparisons between 'De Onlanden' and 'De Burd'. Based on these analyses, every paragraph is concluded with a summary linked to the concerning research question. These findings are more comprehensively assembled and discussed in the last, concluding chapter. In figure 4.1, the structure of this chapter is outlined. Before the hard core results are brought in, the two case studies are introduced in the next section.
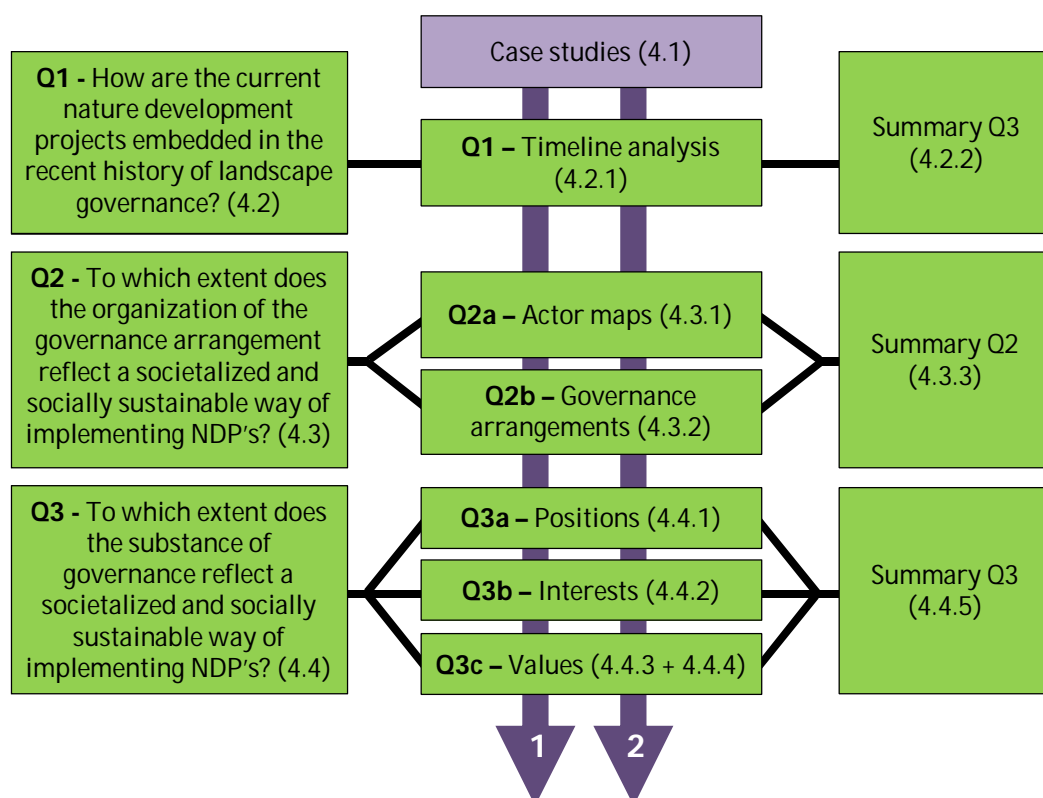
Figure 4.1 – The structure of the fourth chapter.

4.1 Uncovering the cases

In figure 4.2, the locations of both case study areas are drawn on a map of the northern Netherlands. De Onlanden is located in top of the province of Drenthe, near the city of Groningen, the largest city in the region. De Burd, lying in the province of Friesland, is located in a relatively low and water-rich area, ten kilometres south from the Frisian capital Leeuwarden. As an introduction to the presentation of the results in the next sections, both cases are further introduced here by looking at their background in terms of geography, landscape, policy context and contents.

Figure 4.2 – *Locations of the cases on a map of the northern Netherlands (map derived from Google Maps).*

4.1.1 De Onlanden

De Onlanden, with a total size of 2500 hectares, is a newly created spatial combination of new nature with a NEN-designation on the one hand (2200 hectares) and a water storage area on the other (1700 of these 2200 hectares) in the province Drenthe. De Onlanden is part of two land consolidation plans: Peize and Roden-Norg. The province Drenthe and water board Noorderzijlvest have been the initiators and steering actors in the Onlanden project. Together with a number of other responsible parties, they form a governance coalition called the 'bestuurscommissie' or the administrative board. The execution of the spatial redevelopment plan in De Onlanden began in 2008. Although some small measures still have to be taken, project De Onlanden in the province of Drenthe has officially been rounded off in the end of 2014. The area is mainly owned by the Staatsbosbeheer (SBB; the government organization of forestry and management of nature reserves) and Natuurmonumenten (also a nature management organisation). The total costs of the project are 42 million euro's, of which the province and the water board are sharing the major part

Geography & landscape
De Onlanden is located in the north of the province of Drenthe, southwest of Groningen city, northeast from Roden, north from Peize and directly south of the A7-highway (see figure 4.3).

On the municipal level, the area can be divided in a smaller eastern part, lying in Tynaarlo, and in a larger western part, which belongs to the Noordenveld municipality. Some smaller villages and hamlets are located more on the edge of the area, including Sandebuur, Roderwolde, Peizermade, Eelderwolde and Matsloot. A part of the northwest border of the area is formed by the lake Leekstermeer, whereas the eastern border is formed by the Omgelegde Eelderdiep canal. The two former agricultural polders out of which the area consists are split by the Peizerdiep. De Onlanden can landscape-wise be seen as a fen area, being developed and drained for agricultural purposes around 1100 already. The area lies relatively low – being the main reason that peat can be found there – and therefore naturally stores a lot of water that comes from the much higher Drents Plateau area, as is shown in figure 4.4. The water is mainly supplied by south-north flowing water courses, like the Peizerdiep. This is also the reason why the area is characterized as wet, mainly consisting out of grassland and open (Projectbureau Herinrichting Peize, 2008).
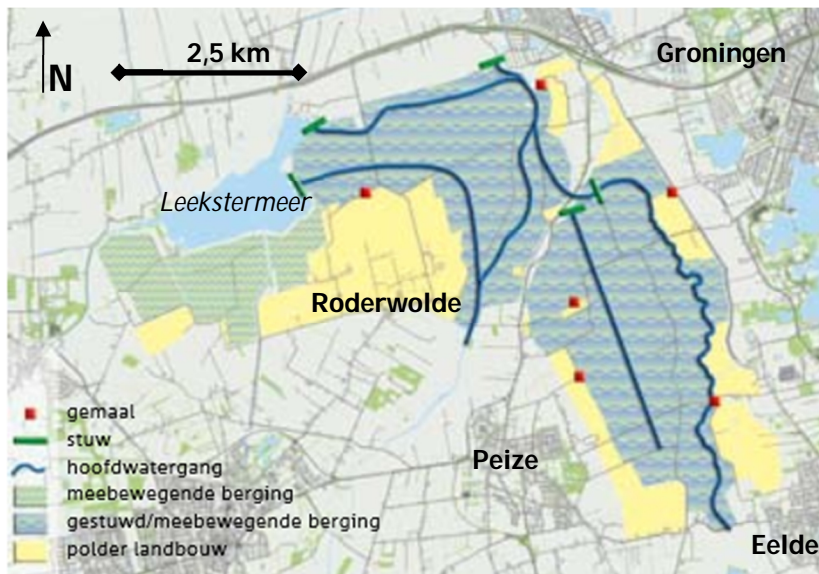
Figure 4.3 – Map of the De Onlanden project area**.** Green and blue are the combined water storage and nature areas, yellow is the area that remains reserved for agricultural use (Projectbureau Herinrichting Peize, 2008).

Figure 4.4 – De Onlanden as natural water storage. Map of the north of the Netherlands, with the orange dashes showing the area where the relatively high Drents Plateau area is draining to, leading to wet conditions and peat formation along that ridge. De Onlanden lies on this ridge, indicated with the red-lined box, southwest from Groningen (Ministerie van V&W, 2009).
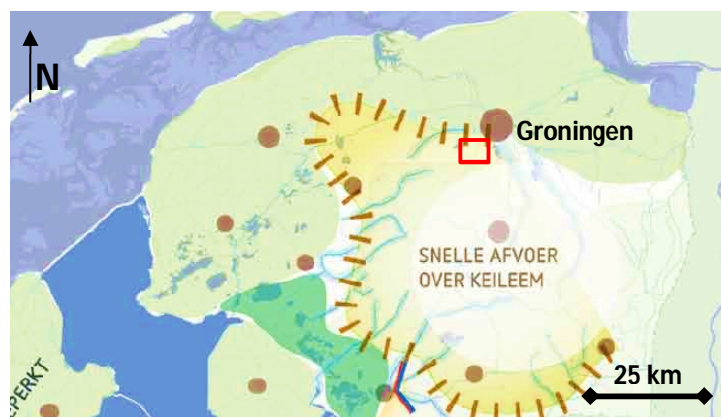
Policy context

Land consolidation projects Peize and Roden-Norg, the overarching plans where De Onlanden area is part of, have the WILG – translated as the Rural Development Law – as their statutory basis and most direct policy on the regional level. From the national level, two sectoral policies apply to De Onlanden case: the NEN-policy concerning the nature area and the Nationaal Waterplan 2009-2015 concerning the water storage, the latter being aligned with the Water Framework Directive (KRW) on the European level. The KRW contains restrictions concerning the ecological values in water management plans. A general spatial policy on the national level is the Structural Vision Infrastructure and Environment. From a supranational level, the Natura2000 designation is applicable to the western half of De Onlanden, west of the Peizerdiep.

On the provincial level, the intersectoral objectives for the area have been fixed in the Spatial Vision or 'Omgevingsvisie', while on the municipal level, the zoning plans are forming the frame in which land uses and restrictions related to parent policies have been determined. In table 4.1, all the relevant policies have been listed, based on the administrative level on which they operate and on the sector in which they fit. In paragraph 4.3.2, the power relations between these policies are mapped and discussed.

Level	General	Water management	Nature
European level		Water Framework Directive	Natura2000
National level	Structural Vision Infrastructure and Environment Rural Development Law (WILG)	National Water Plan 2009-2015	National Ecological Network (NEN)
Regional or provincial level	Spatial Vision Drenthe Land consolidation plan Peize and Roden-Norg		
Municipal or local level	Municipal zoning plan		

Table 4.1 – *Relevant policies for De Onlanden*

Ecological contents

In 'De Onlanden', the agricultural function has been removed and is relocated to the southern areas within the land consolidation project. It concerns the creation of new NEN-nature in conjunction with the realisation of an ecological corridor. This nature is also functioning as water storage, surrounded by higher grounds or low dikes. After an environmental impact assessment (MER) had been conducted, two main 'natuurdoelptypes' or nature target types have been chosen for De Onlanden: marsh nature combined with flowery meadows (DLG Noord, 2006). The most drastic measures that had to be taken were the removal of the farmers, raising the surrounding low dikes, adjustments in the watercourses and location-specific measures to create the conditions for the intended nature to develop. In the Onlanden, recreation is allowed and some recreational infrastructure is incorporated in the plans, be it in an extensive form (Projectbureau Herinrichting Peize, 2008).

4.1.2 De Burd

De Burd is an island in the province of Friesland. As part of the land consolidation plan Swette-De Burd, which officially began in 1990, the agricultural function on the island is largely removed. Instead, nature values are being improved in the northern part of the island, the Noarderburd, in the context of the NEN-policy. Furthermore, a new waterway will be dug for recreational purposes. The province Friesland is the initiator of the project, whereas the administrative board forms the steering policy arrangement in the decision making process. De Burd is part of the third execution phase of the land consolidation. The first and second phases have already be rounded off between 2000 and 2009. The third execution module has been established by the province, but parts of the module still need to be confirmed by the municipality, Leeuwarden. The owner of the potential nature ground is It Fryske Gea (IFG), the provincial landscape and nature management organization, together with private owners who will manage nature in accordance with IFG.

Geography & landscape

De Burd is located in the middle of Friesland, in an agricultural and sparsely populated area (for the area, see the map in figure 4.5. The city most close to the island is Grou, a town ten kilometres southern of Leeuwarden. De Burd used to be part of the municipality of

Boarnsterhim, but Boarnsterhim was abolished and divided amongst the neighbouring municipalities in January 2014. De Burd and Grou both were assigned to Leeuwarden. De Burd has not always been an island, since it is divided from its surrounding land by canals which were dug by man. The largest canal is the Princess Margrietkanaal, a waterway with regional importance and furthermore the western boundary of the island. The only way to reach De Burd is by a ferry, which takes just two minutes. In summer, there is a second ferry for bikes on the other end of the island, so tourists can cross the island to the direction of the city of Drachten in the east of Friesland. De Burd has only seventeen permanent residents. In the southwest of the island, 35 cottages are located, built in 1995, which increases the number of inhabitants during the summer season to at least 100 people. De Burd is located in an open, agricultural fen landscape, characterized by wet conditions and surrounded by natural and artificial waterways and lakes. Moreover, De Burd is a polder, were the water level is regulated by the water board to ensure good agricultural conditions. The area eastern from De Burd, de Alde Feanen ('the old peatlands') has a similar origin, but has been managed as a nature reserve since the peat was extracted.

Figure 4.5 – *Map of the De Burd project area. In the dark and lighter shades of green, the projected nature areas on the Noarderburd are indicated. The blue areas refer to the recreational measures that will be taken on the Suderburd* (DLG Friesland, 2000).
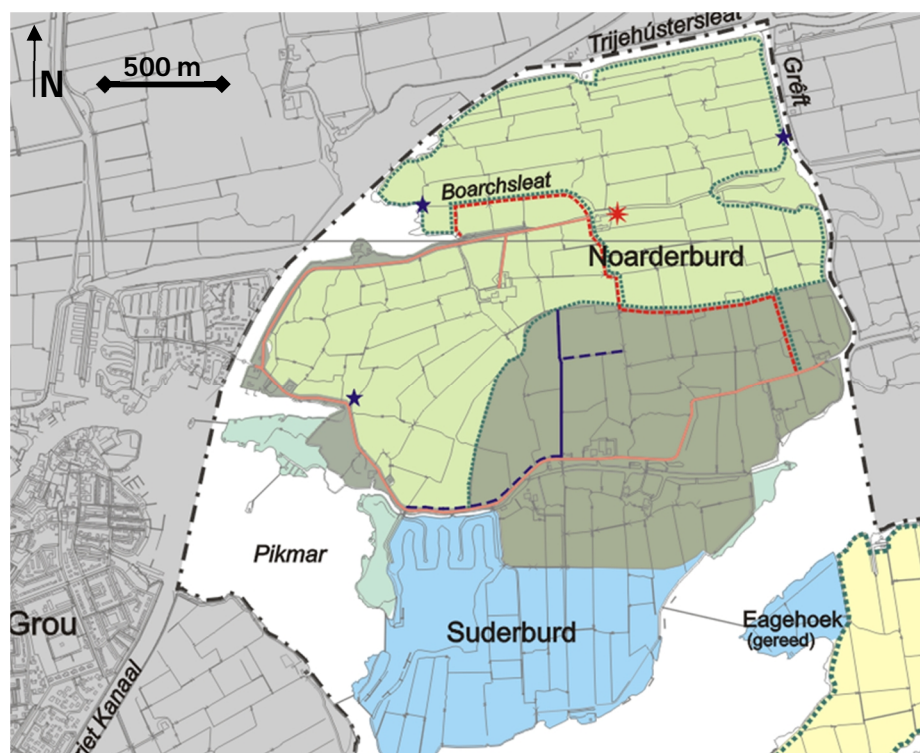
Policy context

The land consolidation plan 'Swette-De Burd' is the steering policy, approved on the provincial level and legitimized by the Rural Development Law. Furthermore, the provincial Regional Plan or 'Streekplan Fryslân' is applicable, since it defines the province its spatial policy. On the national level, the NEN-policy is important concerning nature (ecological corridor), the Integrative Water Management Plan concerning water management and the Structural Vision is relevant in a more general sense. On the European level, the KRW is important concerning the water management interventions. The plans to create nature on De Burd strengthen the existing nature area to the east of De Burd: De Alde Feanen. De Burd is already part of National Park 'De Alde Feanen' (Overlegorgaan NP De Alde Feanen, 2005). On the municipal scale, the zoning plans are important. In table 4.2, the relevant policies are displayed, whereas in paragraph 4.3.2, the power relationships between these policies are analysed.

Level	General	Water management	Nature
European level		Water Framework Directive	
National level	Structural Vision Infrastructure and Environment	Integrative Water Management Plan	National Ecological Network (NEN)
Regional or provincial level	Regional Plan Fryslân Land consolidation plan Swette-De Burd		National Park 'De Alde Feanen'
Municipal or local level	Municipal zoning plan		

Table 4.2 – *Relevant policies for De Burd*

Ecological contents

While previous plans focused on the creation of wet marshland, which means the land has to be de-polderized, the current plans for nature development in the Noarderburd and the Suderburd are a combination of flowery grassland inside the dikes and 'bûtlân', which can be translated with wetlands and reed. Not the whole area in the Noarderburd is possessed by It Fryske Gea, but almost all of the few private owners are taking part in 'particulier natuurbeheer' or private nature management programmes. The main measures to be taken to create nature on De Burd are dealing with water management: dikes have to be replaced inwards, a new pumping station has already been built and the water level will be managed according to the nature goals (BC Swette-De Burd, 2009). From the 1990s onwards, a bunch of farmers were replaced. Today, only on farmer is located on the island itself, but he only uses his land extensively according to the nature goals of It Fryske Gea. The other lands of It Fryske Gea are being leased to farmers from outside De Burd, as well with limited use and nature-related restrictions.

4.2 Histories of landscape governance (Q1)

To understand the role governance in the societalization of nature development, it is important to know how the current projects are embedded in the history of the governance of the Social-Ecological Landscapes. Question one, addressing this issue, in answered in this section.

4.2.1 Timeline analysis

Below are the timelines that represent the historical background of the landscape governance in both case studies (figure 4.6). These are limited to the last 50 years, because the first policies to transform the areas emerged in the 60s. Based on these timelines, the history of both projects is discussed here in chronological sequence.
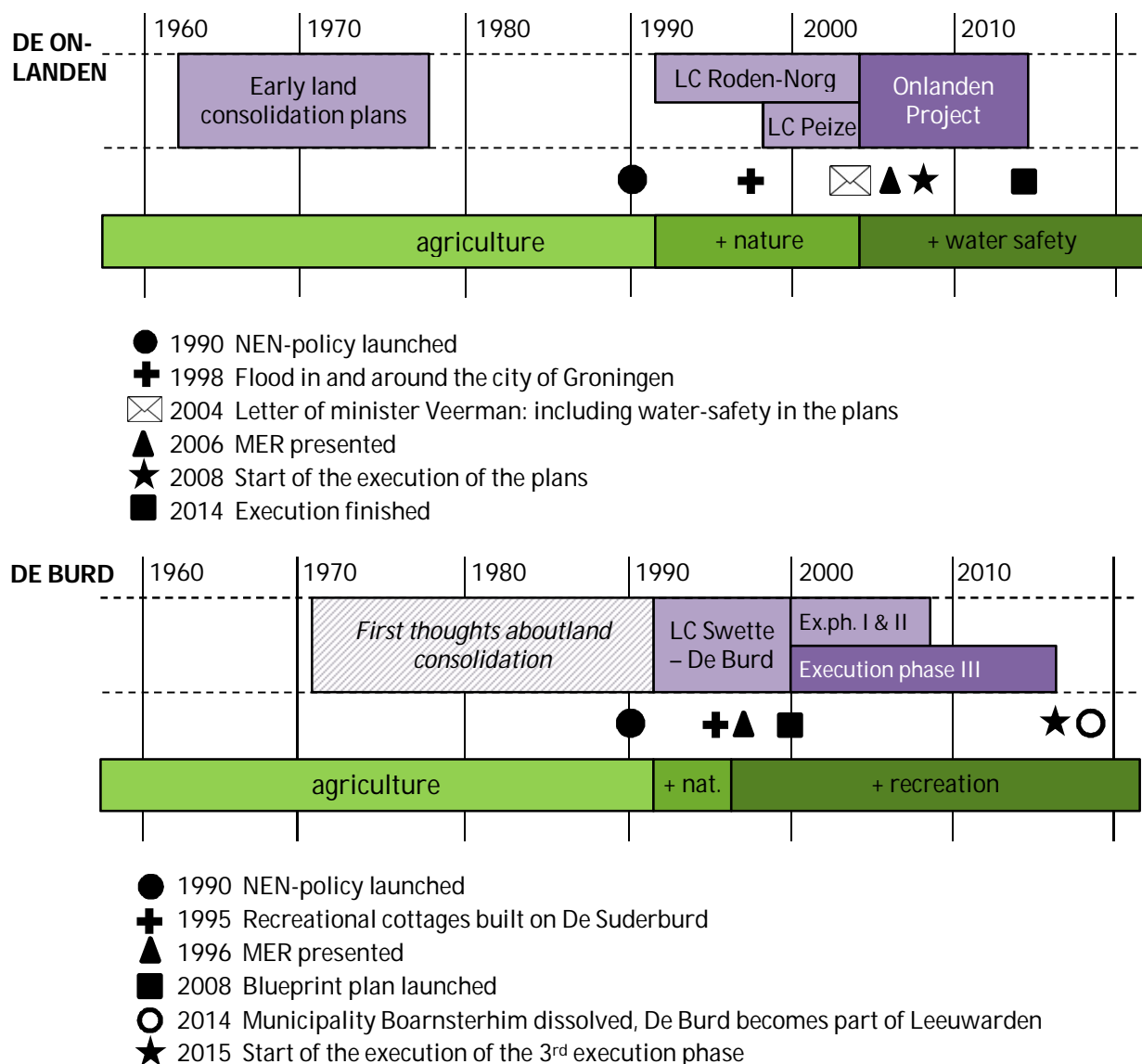

Figure 4.6 – *Timelines of the NDP's in De Onlanden and De Burd.*

Post-war call for agricultural improvement

De Onlanden and De Burd are located in predominantly agricultural areas in the north of The Netherlands, both with an agricultural history of many centuries. In De Onlanden, most companies, however, are locates southern from the project area, near Peize. On De Burd, most of the farmers are living in the better accessible Swette area. In the decades after the Second World War, the rationalisation of the Dutch existing agricultural landscapes had high priority, reflected in several polderizations and land consolidation plans (Antrop, 2005; Janssen & Knippenberg, 2008; Londo, 1997). In De Onlanden, this transition towards what Antrop calls a 'post-modern landscape' was translated in early land consolidation plans in the 1960s and 1970s. As part of these plans, the parcelling was optimised for productive, agricultural purposes, leading to a decrease in the number of farmers (Projectbureau Herinrichting Peize, 2008). Also on De Burd, the rapid technological developments in the agricultural sector lead to an urge to improve the agricultural landscape. The farmers in the small-scale and limited accessible island could not catch up with the changing society and economy. At least that was the argumentation used in the first requests for a land consolidation plan in the Swette-De Burd region in the 1970s and 1980s (Leeuwarder Courant, 1991; LC Swette-De Burd & DLG Friesland, 2000). However, it did not lead to the early land consolidations like what happened in De Onlanden. Besides, the call for agricultural improvement in De Onlanden did not turn out to be appeased. Despite the early land consolidation in 1960s and 1970s, land use remained fragmented, land ownership was not spread in an efficient way and the size and shape of plots was still inefficient for the unceasing modernising agricultural industry (Projectbureau Herinrichting Peize, 2008).

New nature and renewed land consolidations

In 1990, the National Ecological Network was originated and both De Burd and De Onlanden were designated as new NEN-areas, where nature should be developed and the dominant agricultural land use would lose its dominance. The NEN was the concretization of the longer existing feelings in Dutch society that ecology and nature should be conserved, thereby reacting to the rationalisation of landscapes for agricultural purposes (Van der Windt, 1995). De Onlanden and De Burd were direct examples of the implementation. In both cases, the nature goals were integrated in renewed land consolidations in the 1990s. These land consolidations and their planning processes covered numerous years.

In the northern part of Drenthe, where De Onlanden is located, two of such new land consolidations originated: land consolidation Roden-Norg in the west and land consolidation Peize in the east of De Onlanden, of which the preparation procedure respectively started in 1990 and 2000. The big difference with the earlier land consolidation plans lies in how land use is spatially distributed. One of the essentials of the Roden-Norg and Peize projects is the segregation of functions: in the current Onlanden area, NEN-nature is being created, while in the southern parts of the project areas, agriculture has the main priority. Clearly, nature goals are involved, opposed by the agriculturally driven early land consolidations. In the De Burd case, the land consolidation 'Swette-De Burd' also started in 1990s. In 1993, the first land consolidation committee was established, after the planning process had been set up from 1990 onwards. Also in the Swette-De Burd land consolidation plan, land uses were separated. In De Burd, nature should be developed, whereas in de Swette, agricultural improvements were the essence of the land consolidation plan.

De Onlanden: water safety as a supercharger

In the Onlanden case, the land consolidation projects Peize and Roden-Norg were separated until 2004. Land was purchased from farmers and the first relocation plans were made. However, in 2004, a crucial pillar was added to the existing plan: water safety (Provincie Drenthe, 2009). To understand the inclusion of water safety goals in the land consolidation plan, the year 1998 and the flood that occurred in that year are crucial. As an institutional consequence of the flood, the provinces of Groningen and Drenthe, together with the water

boards Hunze & Aa's and Noorderzijlvest, originated the 'Stuurgroep Water 2000+', which advised governments on water management issues in the north of the Netherlands. One of their suggestions was the development of a water storage area in on the edge of the Drents Plateau. In 2004, water board Noorderzijlvest and the Province of Drenthe came with the idea to combine the nature development plan and the water storage plan in the Onlanden area, supported by the national level. Cees Veerman, then minister of Agriculture, Nature and Fishery, declared in a letter that he was in favour of such a combination, because of the integration of societal goals with nature goals and the opportunity to realize NEN-nature more quickly than without such integration (Provincie Drenthe, 2009).

Between 2004 and the start of the implementation in October 2008, the planning process of both land consolidations continued with this renewed focus on three instead of two pillars: nature, agriculture and water safety (Provincie Drenthe, 2009). The decisions were made by the administrative board, instituted in March 2005. Part of the decision making process was performing a MER, which was finalised in 2006 and specified the main design of the water storage area. From a number of alternatives, the preferred alternative was chosen in June 2006, including the realisation of 2200 hectare of new nature, from which 1700 hectare at the same time functions as a water storage area (DLG Noord, 2006). The final phase of the plan – the physical implementation – could start in 2008, after all the administrative procedures were finished (Provincie Drenthe, 2009).

De Burd: delay and integrating recreation

On De Burd, the first farmers were also relocated in the early 1990s already, when DLG offered them to buy their farmland. In 1995, 35 recreational cottages were built in de Suderburd; however, this was no official part of the land consolidation plans (Leeuwarder Courant, 1995). In the second half of the 1990s, the first plans on how to redevelop the Noarderburd area were revealed: embankments should be removed, so marsh nature could be developed, which would later on success to a swampy forest. The plans for such a radical landscape change led to protests from both the municipal council of Boarnsterhim and locals, with the threat of losing the existing nature values and openness of the landscape as the main arguments (De Mik, 1998; Leeuwarder Courant, 1995). After a MER had been conducted, the 'Raamplan' or blueprint plan was established in 2000, breaking with the 'bûtlân' or marsh nature plans, instead combining wetland and reed on the 'coast' of the island with embanked flowery grassland.

Between 2000 and 2009, the first two parts of the consolidation plan were executed, mainly concerning interventions in the Swette area. In 2007, the land consolidation committee changed into an administrative board, due to the introduction of the WILG. The third part of the execution plan – concerning the redevelopment of De Burd – was finalised in 2009 (BC Swette-De Burd, 2009), and although the execution was planned to begin in 2010, the start lasted until 2015. A main factor causing this delay is the struggle between the governments and the private owners and local stakeholders to reach consensus on the recreational waterway that should be dug between the Noarder- and Suderburd, outside but directly bordering the NEN-area. That is why recently, the Leeuwarden municipality decided to compartmentalise the different measures in the redevelopment of De Burd, to avoid that the struggling waterway plan further delays the implementation of water management and NEN-nature development measures.

Tertiary nature and its management

Despite the decision making process had a different sequence and the crucial events during this process were different, the land consolidation plans in De Onlanden and De Burd are now both in its final phase. In De Onlanden, the implementation was rounded off in the end of 2014 and currently, management is the most important act of governance, which is mainly in hands of Staatsbosbeheer, Natuurmonumenten, the municipalities and the water board, all owners of ground and/or infrastructure in the area. Nature and recreation are the most prominent land

uses nowadays. On De Burd, due to the delay, implementation only started around 2014 and will be finished in the coming years. As soon as the measures have been executed, a combination of recreation and nature is also the main land use on De Burd. The nature reserve that is created coexists with a number of private owners that still live on the island and take part in lucrative private nature management programmes. However, the leading nature management actor will be It Fryske Gea as being the owner of the large majority of grounds.

4.2.2 Wrap up: new nature, old agendas

Research question one asks for the historical embeddedness of the governance of the social-ecological landscapes in the two cases. In both examples, the plans for creating new nature can be understood as a reaction to the emergence of urban or post-modern transitions in landscapes (Antrop, 2005; Londo, 1997). Mainly based on ecological arguments, NEN-designations were given to the areas, including the task to create new, or – in terms of Wolff – tertiary nature in former agricultural landscapes (Wolf, 2012). However, next to the implementation of the NEN-policy, these regions also have their own spatial agendas, often strongly related to the agricultural function of the area. In De Onlanden and De Burd, the need for agricultural improvement and the land consolidation plans that were requested are most relevant in this respect. Concerning the embeddedness of the nature development plans in the recent history of landscape governance, three conclusions can be drawn based on the timeline analysis for De Onlanden and De Burd.

1. Land consolidation plans as legal frame for implementation

When looking at how the creation of new nature is implemented, it are land consolidation plans that are used as the legal frame for realising the nature development goals, currently fixed in the Rural Development Law. Since the early land consolidation in De Onlanden meant rationalisation for agricultural and economic purposes, it seems paradoxical that it have been these land consolidation plans who were the carriers of nature development implementation. However, in the 1990s, both in De Burd and De Onlanden, the land consolidation plans were used as an instrument for a more integrative spatial reorganisation with more than just agricultural aims. In the renewed NEN-policy from the year 2000, a broad view on nature development is provided as well, including landscape and forestry besides only nature. In other words: the NEN-goals have effectively been implemented by downloading them into the more spatially integrative and regionally embedded land consolidation plans.

2. Synergy between ecosystem services

In this second conclusion, the phrases 'spatially integrative' and 'regionally embedded' are explained in more depth. Because of the embeddedness of nature development in the regional land consolidation plans, synergy was sought and found between different ecosystem services in the area of De Onlanden and De Burd. As discussed in this section, in De Onlanden, water safety was an important pillar besides nature. Also agriculture as the dominant land use is taken into consideration because of the regional scale on which the land consolidation operates, including a large agricultural area southern form De Onlanden. On De Burd, recreation and agriculture are important ecosystem services besides the nature goals. Because of the combination of ecosystem services and – as important – stakes, the development of NEN-nature has been integrated in the spatial agendas on the regional level. Furthermore, the NEN-policy has also functioned as a catalyst for decision making in the 1990s to realise this spatial agendas, although the physical realisation would take two more decades.

3. Public debate leads to adjustment of plans

Thirdly, something both cases had in common is that there was public debate on the plans at some stage, leading to an adjustment of the plans on the longer term. Looking at the type of nature that is (going to be) realised, both plans differ considerably. Whereas on De Burd, flowery

grassland and bûtlan is created, the landscape on De Onlanden is changed more heavily, by creating marshes and wetlands together with flowery meadows. However, in the 1990s, similar plans were raised for De Burd, leading to effective protest amongst locals and the local government. Also in De Onlanden, earlier plans to remain the agricultural function of the area, combined with a water storage function in emergency cases, had no broad support within local society. In short: although the type of NEN-nature has been debated, the NEN-designation itself has not: nature proved to be adjustable according to local or regional decision making.

4.3   Societalization in the institutional landscape (Q2)

After composing the overview of the recent governing history for both cases, now, the focus shifts to the institutional side of the landscape governance. First, the main actors within both cases are mapped, categorised and identified, based on the actor mapping method as explained in chapter three on the methods. Secondly, the characteristics of the relationships between actors in terms of power, resources and rules are discussed, with special attention to the administrative boards of the land consolidations. Based on all this information, the mode of the governance arrangements – using the definition and spectrum as developed by Arnouts et al. (2012) and Kooiman (2003) – is determine.

4.3.1 Actor maps

Governance coalitions

Before a total overview of the field of actors is provided, first, the actors that are involved in the governance coalitions. Because nature development is regionally embedded in land consolidation plans, these coalitions are the administrative boards, being formally involved in the decision making process. The people taking part in the administrative boards are almost all directors within their organisation, often represented by an official representative during meetings and consultations. Independent chairmen are leading the boards. Due to the fact that all the relevant government institutions and land owners are represented in the committee, the governance coalitions are a strong instrument for the implementation of the land consolidation plans and the aligned nature goals. The powerful nature of the administrative boards within the governance arrangements is more deeply analysed and discussed in 4.3.2.

In De Onlanden, the administrative board of the Peize land consolidation plan is the one leading the project. First of all, the initiators – water board Noorderzijlvest and province Drenthe – are included. Furthermore, the municipalities of Tynaarlo and Noordenveld are in because the project takes place within their boundaries. LTO-Noord represents the agricultural sector, whereas Natuurmonumenten and Staatsbosbeheer are in because they are the new land owners and are the leading nature management organisations as well. Kadaster (maintaining the cadastral information) is in as a facilitating agency and DLG (the State Agency for Land Acquisition) is the executive organisation concerning ground acquisition and holds the secretary for the project. The tenth member of the committee is an individual representing the local inhabitants in the area.

On the De Burd, the decision making takes place on the level of the regional land consolidation plan Swette-De Burd. The administrative board consists out of five representative actors and three advisory actors. The initiator, Province Friesland, belongs to the advisory panel. DLG and Kadaster are also advisory and facilitating actors. The regular members of the policy arrangement are the regional water board Wetterkip Fryslân, the municipalities involved (represented by one of the alderman) and furthermore by three individuals all representing a certain stake: agriculture, nature and recreation, respectively allied to LTO, It Frykse Gea and Marrekrite. Important to note here is that the nature development area on De Burd is relatively small within the broader Swette-De Burd area, whereas De Onlanden has a more dominant role within the Peize land consolidation area. This has implications for the degree in which local actors are and feel represented in the administrative boards, something that is further discussed later on.

Full fields of actors

In figure 4.7 and 4.8, the full fields of actors are drawn for both cases, visualised in actor maps. These actor maps display the actors, their mutual relationship, the actor type (Driessen et al., 2012; Swyngedouw, 2005), the scale on which the actor operates and the main stake that the actor has. The selection of the actors to display is mainly based on the actor mapping methods, as discussed in chapter three. The mutual relationships refer to the actors represented in the governance coalition and the actors which are indirectly conformed to this coalition. Concerning the administrative scale of the actor, the level on which the actor mainly operates in this specific case has been leading. As the coalitions have already been discussed above, it are mainly the other actors which are described here. The full tables with information on the actors is are attached for each case (attachment 6 – actor table 'De Onlanden; attachment 7 – actor table 'De Burd').

Figure 4.7

ACTOR MAP
'De Onlanden'
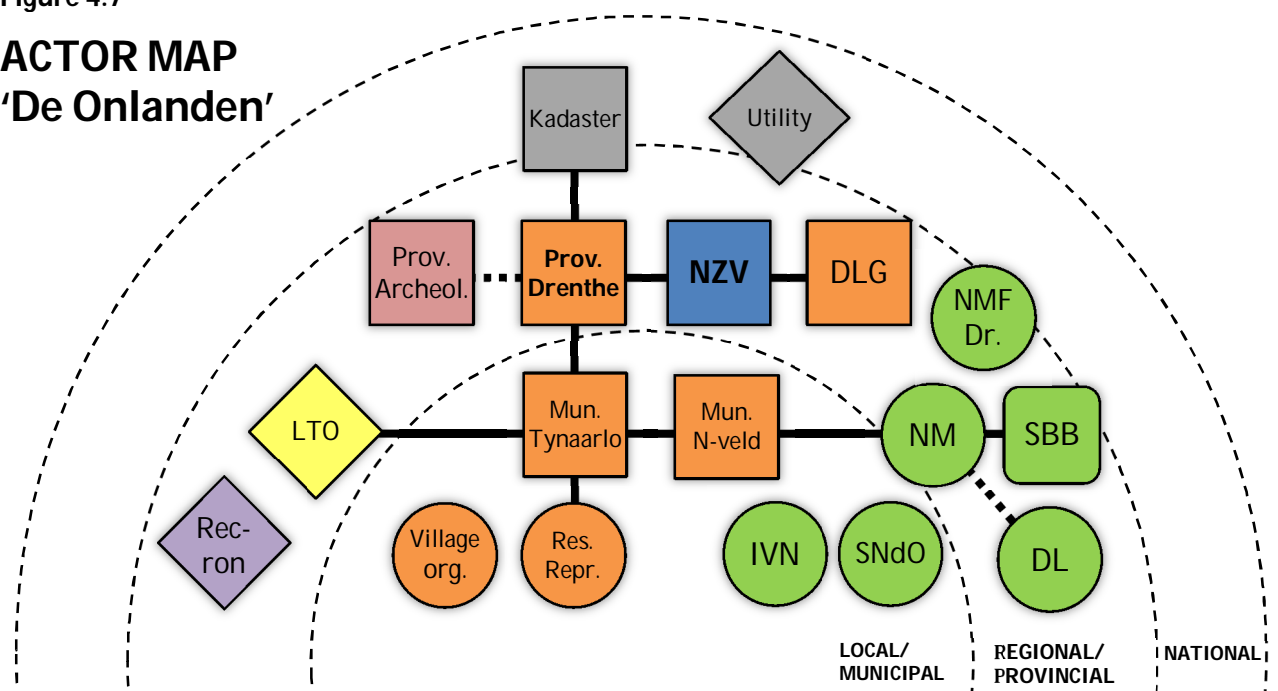
Kadaster · Utility

Prov. Archeol. · **Prov. Drenthe** · **NZV** · DLG · NMF Dr.

LTO · Mun. Tynaarlo · Mun. N-veld · NM · SBB

Rec-ron · Village org. · Res. Repr. · IVN · SNdO · DL

LOCAL/ MUNICIPAL · REGIONAL/ PROVINCIAL · NATIONAL

LEGEND

Actor type

☐ Govermental actor

☐ Semi-governmental actor

◇ Market actor

○ Civil society actor

Actor relationships

▬ Policy arrangement

···· Indirectly represented in policy arrangement

Actor main stake

■ General/public

■ Nature

■ Water management

■ Agriculture

■ Recreation

■ Culture-history/landscape

■ Other

Abbreviations

DL = Drents Landscha
DLG = State Agency for Land Acquisition
IVN = Institute for Nature-education
LTO = Agri- and horticultural organisation
Mun. = Municipality
NM = Natuurmonumenten
NMF Dr. = Natuur- en Milieufederatie Drenthe
NZV = Noorderzijlvest
Prov. Archeol. = Provincial Arcaeologists
Res. Repr. = Residential Representative
SBB = Staatsboseheer
SNdO = Foundation for natural interests De Onlanden
Village org. = Village organisations

Figure 4.8

ACTOR MAP
'De Burd'
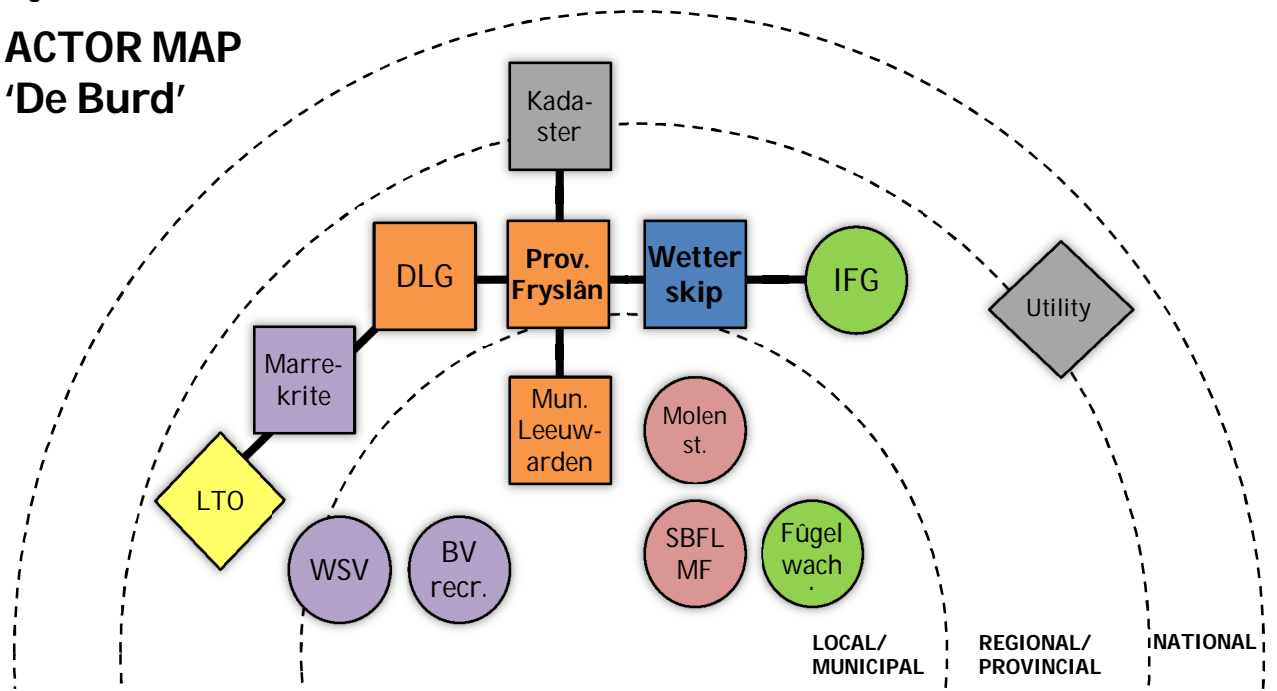
LEGEND

Actor type

☐ Govermental actor

☐ Semi-governmental actor

◇ Market actor

◯ Civil society actor

Actor relationships

▬▬ Governance coalition

···· Indirectly represented in governance coalition

Actor main stake

🟧 General/public

🟩 Nature

🟦 Water management

🟨 Agriculture

🟪 Recreation

🔴 Culture-history / landscape

⬜ Other

Abbreviations

BV recr. = Residential organization for recreationists
LTO = Agri- and horticultural organisation
Molenst. = Mill Association
Mun. = Municipality
SBFLMF = Association for conserving the Frisian Landscape of Middle Fryslân
WSV =Association for Water Sports

In De Onlanden, relatively many actors representing nature are directly or indirectly involved in the decision making process. Officially, Natuurmonumenten and Staatsbosbeheer together represent the nature interests in the project. However, especially on the local level, a number of smaller organisations exist, also with nature values as their main stake. It concerns IVN Roden and IVN Peize, both local nature education associations, NMF Drenthe, a provincial nature and environmentally oriented organization and Stichting Natuurbelang De Onlanden, a local foundation aiming to defend the nature interests in De Onlanden. Drents Landschap, another nature management organisation like SBB and Natuurmonumenten, is only limitedly involved, owning a small area of land within De Onlanden and being represented by these two actors in the board. The local residents are officially represented by an individual in the administrative board; however, this actor was only mentioned by the minority of interviewed people. Other actors defending the interests of the villages are Dorpsbelangen Roderwolde, Dorpsbelangen Nieuw-Roden and Dorpsbelangen Peize. The archaeological and culture-historical stakes are –

apart from by experts – not defended by a specific local organisation, and were often not mentioned in first instance during the actor mapping process. On the provincial scale, the provincial archaeologists are representing this kind of interests. Since arch these archaeologists are working for the province, they are indirectly aligned to the board. Concerning recreation and tourism, Recron is the main actor, representing the recreational entrepreneurs in the region. Finally, a number of utility companies are involved in the planning process because of the – mainly underground – infrastructure in the area.

In the case of De Burd, it are he recreational actors which relatively frequent represented. Marrekrite, which takes place in the administrative board, is a governmental partnership between the province and numerous municipalities, defending the interests of water-related recreation in the middle of Friesland. On a local scale, the recreational – and therefore temporary – residents on De Burd are united in a residential organisation ('bewonersverenging' or BV). A local-regional association for water sports is involved as well. Concerning the landscape and cultural history of the area, the 'Stichting Behoud Fries Cultuurlandschap Mid-Fryslân', a regional foundation for conservation of the middle-Frisian cultural landscape has been involved, especially in the 1990s when the initial plans to create marshes were raised (Leeuwarder Courant, 1995). Also, a foundation engaged with historical mills is involved. Important stakeholders are the small group of permanent inhabitants and farmers on De Burd, however, they are only represented indirectly. LTO is mainly involved concerning land exchange schemes in the Swette-project, so on a regional level. Therefore, an individual farmer on and inhabitant of the island, leasing some land from It Fryske Gea as well and taking part in the private nature management programme, was interviewed on behalf of this group. A local group of bird watchers is also involved, emphasizing nature and landscape values in the area. Indirectly, a number of utility companies have a stake, owning underground infrastructure in the area.

4.3.2 Governance arrangements

As unfolded in paragraph 2.3, governance arrangements refer to the organisational part of the policy domain or policy arrangement. Arnouts et al. (2012) distinguish three components of GA's: actors, rules and power. In the previous paragraph, the actors, their mutual relations and their stabilisation into coalitions or policy arrangements are already covered. Next, the rules and power aspects of the GA's are discussed. The rules are studied by analysing the relationships between the policies, whereas the power component is divided into resource analysis and studying the vertical and horizontal setup of the arrangements.

Rules: policy maps

As Arnouts et al. (2012, p.25) put it, 'the rule dimension focuses on the rules that shape the interactions between actors. Such interaction rules constitute both formal procedures and informal routines'. This research focuses on the formal procedures, by looking at the policies – listed in table 4.1 and 4.2 – that restrain and steer the actions of the actors. In figure 4.9, the so-called policy-maps of De Onlanden and De Burd are drawn. It shows how the policies are related in the specific situation of the land consolidation plans steering the De Onlanden and De Burd projects.

In both cases, the black boxes present the policy in which the policy arrangement is operating: the land consolidation plans. These plans have a constitutive relationship with the WILG, the latter being its legal framework. With the other policies, the relationship is directive. In both cases, the land consolidation plans are subjected to sectoral policies from the national level – and in the case of De Onlanden also European level – concerning nature and water management. Although it concerns directive policies, they only relate to parts of the land consolidation plans since their sectoral nature. The land consolidation plans themselves are directive to the

provincial regional plans and the municipal zoning plans, noting that the democratic bodies on that level have to approve. The policy maps clearly point out that the main policy and decision making takes place at the regional level and that the NEN-designation that implies the development of nature – amongst other sectoral policies – has a directive position towards this regional land consolidation plan. Although detailed differences, this is the case for both De Onlanden and De Burd.

'De Onlanden'   'De Burd'

Natura 20000

EUROPEAN

NEN   KRW   WILG   National Water Plan

NATIONAL

Land Consolidation Peize

Regional Vision Drenthe

REGIONAL/ PROVINCIAL

Municipal Zoning Plan

LOCAL/MUNICIPAL

NEN   KRW   WILG   Integral Water management Plan

Land Consolidation Swette-De Burd

Regional Plan Fryslân

Municipal Zoning Plan   National Park 'De Alde Feanen'

Sector
- ■ Direct policy (general)
- ■ General
- ■ Nature
- ■ Water management

Relationship
- → Directive
- ┄> Constitutive

Figure 4.9 – *Policy maps.*

Power: resources

Next to actors and rules, Arnouts et al. distinguish the power dimension as an important component within a governance arrangement. They stress the relativity of this power dimension and furthermore emphasize the importance of actor resources. Like rules, resources co-determine the strength positions of actors to each other and shape the 'agency's capacity to act' (Clegg, 1989, in Arts & Van Tatenhove, 2004, p.350). Examples of resources that are used here are legal means, property or land ownership, money and labour or expertise. Interesting to analyse in this respect is how the power in terms of resources is spread amongst the actor fields and to which extent resources are pooled to the side of the administrative boards.

In both De Onlanden and De Burd, resources are indeed clearly pooled to the boards, containing almost all the resources. This makes sense, however, since in land consolidation plans, the ability to redevelop a certain area critically depends on the ability to influence ownership, spatial laws and regulations and the ability the invest money in such perennial projects. Therefore, parties representing land owners are incorporated in the boards: LTO (representing the farmers),

Staatsbosbeheer and Natuurmonumenten (owning nature areas) and the two relevant municipalities (owning many infrastructure grounds) in the case of De Onlanden and LTO and It Fryske Gea (owning nature areas) in the case of De Burd. The importance of the inclusion of land owners is stressed by John Tukker, representative of DLG in De Onlanden, when he describes the importance of land acquisition for the progress of land consolidation plans:

> 'That is the motor, you need land, otherwise you are powerless. [...] When you are not owning the land, just imagine, you can't change zoning plans, you can do nothing at all.'
> John Tukker, DLG [De Onlanden]*

Also the actors financing the project are logically in the boards, predominantly the provinces, water boards and the nature management organizations. To ensure the legal success of the projects, the governmental bodies on different levels are in: municipalities and provinces. Although many local actors outside the boards are representing important groups in society, they often lack resources at the regional level and are therefore not directly represented in the administrative board. The recreational sector and the village organisations are examples of such local actors, with no legal means, worthy budget and large scale property. Furthermore, they are run by volunteers, whereas many institutions within the administrative committee, especially the governmental ones, have employees that are involved in the projects in a professional way, leading to differences resources in terms of labour (time) and expertise. As put by a recreational entrepreneur in De Onlanden:

> 'We are represented by a branch organisation, with many activities on the national level [...], but it are the entrepreneurs that have to do the work, and we are not people with a huge political drive or whatever. For me, this is the first and the last time that I am involved in such a project.'
> Jelle Cnossen, Cnossen Leekstermeer [De Onlanden]

Power: horizontal and vertical distribution

When studying the relational component of power, two scales or perspectives exist: the horizontal and vertical distribution of power amongst actors. They align to Keulartz' notions of horizontal and vertical governance, respectively referring the how governance responsibilities are divided among governmental and non-governmental actors and on which scale the governing actors are operating (Keulartz et al., 2004; Swyngedouw, 2005). In the actor maps in figure 4.7 and 4.8, the horizontal scale is shown by the shape of the actors, whereas the shells of the semicircle indicate the horizontal scales.

Governmental actors are overrepresented in the administrative boards of both cases. In De Onlanden, only LTO, Natuurmonumenten and the representative of the local community are the only non-governmental actors. The actors outside the policy arrangement mainly consist out of civil society and market actors, which have no legal responsibilities and fewer resources. Also in case of the arrangement of Swette-De Burd, most actors are governmental. It Fryske Gea, a civil society actor, is the major land owner in the newly created nature area. LTO, representing the agricultural sector, is also a non-governmental actor, but is not directly engaged in the nature development project on De Burd. The general 'horizontal' picture is that non-governmental actors are only included in the arrangements when they have crucial resources, like land-ownership.

In placing the actors on the vertical scale, not the highest level on which the specific institution is working is taken as leading, but the scale on which the actor operates related to the nature development projects. It means that nationwide actors like Staatsbosbeheer and DLG are displayed on the regional instead of the national scale, since it are the regional districts that are involved in the NDP's. That being said, the vertical distribution shows a crucial role of the

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All quotes are freely translated from Dutch or Frisian.

regional or provincial actors in decision making. This distribution seems convenient, since the land consolidation projects are indeed transcending the local scale. It means that decision making is logically assigned to the province and other regionally acting actors, although the NDP's, especially on De Burd, are relatively locally based within the larger land consolidation plans.

Closed co-governance

When analysed in coherence, the actor, rules and power component point out which type of governance arrangement is in the cases. As explained in paragraph 2.5, four ideal governance arrangement types can be spread over a spectrum, ranging from hierarchical to self-organizing types of governance (Arnouts et al., 2012; Kooiman, 2003). Both the governance arrangements in De Onlanden and De Burd have strong similarities with the closed co-governance ideal type as described by Arnouts et al. In table 4.3, the ideal GA's and their actor, rules and power components are outlined, together with the situation as analysed in De Onlanden and De Burd. Figure 4.10 visualizes the place of both De Onlanden en De Burd on the spectrum.

	Hierarchical governance	*Closed co-governance*	*Open co-governance*	*Self-governance*	*De Onlanden*	*De Burd*
Actor	Mainly governmental actors	Selected mixed group of actors	Large mixed group of actors	Mainly non-governmental group of actors	Large group of mainly governmental actors	Group of mainly governmental actors
Rules	Govern-mental coercion	Restricted cooperation	Flexible collaboration	Non-governmental forerunning	Restricted cooperation within the committee	Restricted cooperation within the committee
Power	With government	Pooled	Diffused	With non-government	Lightly pooled	Lightly pooled

Table 4.3 – *Governance arrangements: ideal types, De Onlanden and De Burd.*
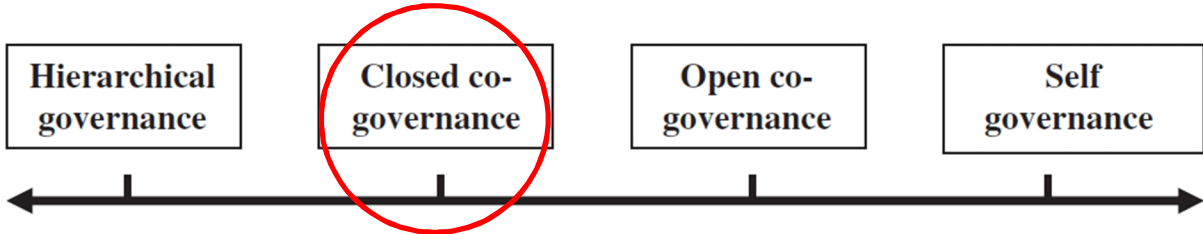
Figure 4.10 – Closed co-governance on the spectrum.

First of all, in both cases, governmental actors are forming a large majority of the board. Furthermore, the governing groups of actors are large and mixed looking at the stakes. This means that concerning the actor component, De Onlanden and De Burd have mixed characteristics of hierarchical and closed co-governance. This is confirmed by the fact that the governmental and non-governmental actors need to work together to realise the proposed outcome, an important closed co-governance characteristic according the Arnouts et al. (2012). The role of LTO illustrates this for the Onlanden-case: since the farmers, represented by LTO, had a large share in the land ownership in the Onlanden area, they are an equipollent actor between the governmental actors with legal power. The equal interrelation between the actors in the boards is also indicated by the independent role of the chairmen. The rules within the boards clearly point out that initiatives and decisions need to be taken jointly. Direct access to this decision making process is only given to those whore are engaged in the committee, wherein roles and responsibilities are clearly divided. In the De Burd case, for instance, the general formation of the board originates from the early 1990s. The policies related to the

decision making are both strengthening and confirming this restricted and rather fixed form of cooperation. Power – the third and last component – is clustered to the administrative boards, so strongly 'pooled' within the field of actors. Within the boards, however, power is better divided; although the divisions of resources point out that real diffusion is not the case as well.

4.3.3 Wrap up: closed and regional societalization

By the results as presented an analysed in this section of chapter four, the second research question can be answered: is the nature development in De Onlanden and De Burd societal, looking at the organisation of the governance? In essence, the analysis revealed a huge overlap between De Onlanden and De Burd. For both, the administrative boards are forming the policy arrangements and for both, the governance arrangement comes closest to the closed co-governance ideal type. The results on the societalization in terms of governance can further be summarized in two main findings:

1. Horizontal: centralization into plural but strongly enforced boards
Concerning governance in vertical terms, the image is twofold. On the one hand, the arrangements within the actor fields are plural in terms of the stakes and groups they represent, whereas on the other hand, they are closed and strongly enforced. To start with the first point: in both cases, large numbers of actors are included, although actors with governmental foundations are overrepresented. Concerning the joint nature of decision making between these actors, there can certainly be spoken of collaborative planning strategies (Ansell & Gash, 2007; Healey, 2006). Besides the province and the nature management organizations, different actors, from the water boards to the agricultural organizations (LTO), are involved in the decision making process on the implementation of nature development. The second point – the closed characteristics of the governance model in terms of Arnouts et al. (2012) – can be seen in light of the embeddedness of nature development within regional land consolidations with rather fixed and powerful boards in lead, originating from the WILG and strongly related to the issue of land acquisition. Within the actor fields, resources as time/professional expertise, land ownership/property, money and legal means are strongly pooled to the boards. Actors outside the boards, mainly local ones with marginal resources, are excluded and have less direct influence (Ferranti et al., 2014).

In more general words: governance of nature development in both cases is societalized when looking at the plurality of the stakes that the enforced actors are representing. There can certainly be spoken of collaborative or co-governance. However, the organization of this governance arrangement is rather fixed, still having some hierarchical aspects and not being that flexible or open. Aspects of self-governance, to be found at the outer right of the governance spectrum and indicating new-institutionalism (Ostrom, 1990) or a new, bottom-up organized order of governance (Rotmans, 2014), cannot yet be distinguished in these examples of nature development projects. A parallel can be drawn here with the conclusions of Turnhout & Van der Zouwen (2010) on governance within the 'Nature for people, people for nature' policy from the year 2000, stating that although a 'substance' of governance is reached, the process to this societalized substance is still rather institutionalised, referred to as 'governance by government'. In the case of De Onlanden and De Burd, this can be specified as 'governance by a closed governing arrangement'.

2. Vertical: national nature policies implemented in regional society
From the vertical governance perspective, speaking in terms of a shift as is done by Keulartz et. al. (2004) is problematic because concerning the two cases; no reliable reference point is available to measure change. However, what can be seen is that although the NEN-policy is one on the national or even on the European level, the primacy of decision making about its implementation lies at the regional level (see figure 4.9). The NEN-policies and other national

policies like those on water management are aligned to the land consolidation plans, in which the administrative boards are in lead. Decision making on nature development is therefore decentralised to the level on which the land consolidations are acting, and are jointly implemented with other spatial agendas on this regional level. The primacy on the regional level logically means that actors on the local level are relatively uninvolved in the decision making on nature development within the administrative boards. In case of De Onlanden, the nature development itself transcends the local level itself as well, but on De Burd, nature is created on a relatively local and small scale, creating a mismatch between the implementation level on the one hand and the level of decision making on the other. To wrap up this paragraph: on the vertical scale, a societalizing trend can clearly be noticed, since decision making is decentralised to the level on which the land consolidations are organised.

4.4 Mediating nature in plural societies (Q3)

Whereas question two focuses on the organisation of governance, question three analyses the stakes of the different actors, and to which extent the actors are collectively supporting the nature development project in De Onlanden and De Burd. That means that in this paragraph, the discourse component of policy arrangements, as the counterpart of the three organizational components, is being analysed. This discourse component refers to the 'substance' or 'content' in the policy domain (Arnouts et al., 2012). By embracing the mutual gains approach (MGA), the consensus on the nature development project in society is reviewed on three levels: actor positions, actor interests and actor values (actor PIV's). An important aspect of consensus from the perspective of MGA, also emphasized by notions on collaborative planning (Fisher & Ury, 1983; Healey, 2006; Innes & Booher, 1999a) and the valuation approach (Van der Windt et al., 2007; Swart et al., 2001), is that no similarity on positions, interests and values has to be reached. However, with the term consensus is referred to agreement or coexistence amongst actors on how to manage shared spaces (Healey, 2006). In practice, this means that both mutual gains and tensions can be witnessed in the governance of SELs. The underlying assumption here is that when consensus on PIV's is effectively found in the decision making process, this strengthens the societalization and therefore the social sustainability and the resilience of the social-ecological landscape.
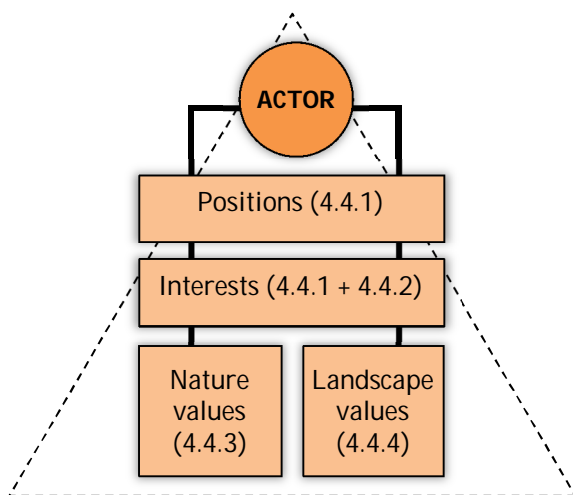
In this section, first, the positions and interests of the selected actors in both cases are discussed (4.4.1). However, the primacy in this section is on the policy discourse in terms of the interests and values of actors and the tension or mutual gains between those. Paragraph 4.4.2 covers an analysis of such synergy or tension between different interests, whereas 4.4.3 deals with the values concerning the nature development and 4.4.4 with the landscape change in general. Paragraph 4.4.5, finally, formulates the main conclusions of this last section of the results. Figure 4.11 visualises this structure.

Figure 4.11 – *Roadmap for section 4.4.*

4.4.1 Positions and interests: an overview

Actor selection

In this part of the results, only a selection of the actor fields of both cases is involved in the analysis. In the case of De Onlanden, it are the interviewed ones, except DLG since its main task is to steer the execution of the plan, not having substantive stakes on their own. Besides the remaining seven actors, two more have been involved in the analysis of positions and interests: local nature groups from civil society (IVN Roden and IVN Peize) and the provincial archaeologists. Both actors are involved since the important role that their organization or the interests they advocate played during the decision making process. In the De Burd case, the four interviewed actors are involved in the assessment of actor support on the three levels. Also the province of Friesland, recreational organizations and the landscape and culture-historical organisations are involved in the analysis, since their stake has been important in the decision making process as well.

Actor positions

A further note is made here on the way the positions have been derived. Since the interviews have been conducted after the decision making process was as good as finished, the initial positions for every actor are hard to obtain. Especially amongst the actors within the administrative boards, a strong feeling to mutually support the project exists, making a 'reconstruction' of the priory positions of the actors before the negotiation and decision making process not reliable. The following quote by the representative from DLG at De Onlanden project explains the importance of the concerted communication within the administrative board:

> *'Something very important is that the actors speak with the same language. So the administrative committee is in lead in this project. That is crucial, that is the most important thing of all.'*
> *'If one of the actors goes on a razzle, this can completely upset the whole process.'*
> John Tukker, DLG [De Onlanden[

To deal with this limitation, the goal has not been to obtain the initial positions the actors had on the spatial problem, but their relative positions concerning the contents of the existing project. In that respect, the projects have to be seen and studied as an assemblage of different elements (as being stressed in drawing their history in paragraph 4.2). A number of actors have a strong 'sectoral' position related to one of these plan elements, whereas other have more 'general' positions, like the different governments and organisations representing a local community.

Positions & interests in De Onlanden

In figure 4.12, the positions and interests actors in the De Onlanden case are schematically shown. The colours of the shapes refer to the type of stake that the actors have, complying with the colours used in the actor maps (figure 4.7 and 4.8). The first initiator – the province – is advocating for and responsible of the land consolidation plan as a whole, containing the agricultural restructuring, the development of NEN-nature and the water storage, being responsible for this policy domains as a governmental institution. Water board Noorderzijlvest is mainly concerned with the water storage to be realised and the water quality to be improved, having the water safety norms on the one hand and serving the nature and agricultural land uses on the other as their interests. LTO aims for proper compensation for the farmers that are relocated and supports the redevelopment plans, with the assumed improvement of the economic position of the agricultural sector in the region as their main interest. The actors with a nature stake, Staatsbosbeheer as part of the administrative (comparable to Natuurmonumenten) and IVN as a local group, strive for nature to be developed in the area, with a robust ecological network on a larger scale as the overarching interest. The municipalities have quite general positions and interests, arguing for the maintenance or improvement of liveability, recreational opportunities and increased water safety. The villagers organizations have more or less the same stakes, albeit on a more local scale. As a representative of the region's recreational entrepreneurs, Cnossen Leekstermeer has the maintenance of the widely respected nature and landscape values as an important interest, being crucial for sustaining the economic opportunities for the recreational sector. Finally, the provincial archaeologists argued for archaeological research and the preservation of peat mounds during the process, striving for protection of the soil archive and culture-historical values in the area on the interest level.

Positions & interests on De Burd

The positions and interests of the selected actors in the De Burd case are shown in figure 4.13. In this case, It Fryske Gea has the leading role, with the increase of biodiversity and certain region-specific species as their main interest. The province is the steering actor for the Swette-De Burd land consolidation as a whole, having its plea and interest spread over all the main elements of the plan: agricultural restructuring, nature development and boosting the recreational sector. The farmers on De Burd, officially represented by LTO in the administrative board, are mainly

Figure 4.12
ACTOR POSITIONS & INTERESTS: 'De Onlanden'

ACTOR →	LTO	Prov. Arch.	Rec-ron	NZV
POSITION(S) →	Compensating relocated farmers and segregation of nature and agriculture.	Archaeological research and conservation of peat mounds.	Maintenance of recreational infrastructure and possibilities.	Creating a water storage area and improving the water quality.
INTEREST(S) →	Improve economic opportunities for farmers.	Maintenance of soil archive and cultural-historical values in the area.	Sustain economic opportunities for the recreational sector and the values of the area.	Meeting national safety norms and facilitate nature and agricultural goals.

Dren-the	Tyn-aarlo	Vill. Org.	SBB	IVN
Relocating farmers, develop nature, improving recreation and water safety.	Improve recreational opportunities and no negative hydrological effects	No traffic disturbance and impacts on liveability of locals.	Creating robust new nature combined with recreation.	Develop robust nature and strong limitation of recreational use.
Improving regional economy (recrea-tion, agriculture) and realising NEN-nature.	Water safety for their residents and liveability in terms of work, life and recreation.	Water safety for locals, liveability and creating a buffer between villages and Groningen.	Increase the robustness of the national and regional ecological system.	Creating unique and robust nature area.

concerned with ensuring decent economic opportunities for their agricultural companies, which depends largely on the agricultural structure that the land consolidation plan is realising in the overarching Swette-De Burd area. Municipality Leeuwarden, since 2014 the successor of the municipality of Boarnsterhim, supports the main plan, although they have no stake in terms of ownership or funding in the nature development element of the plan. Their interest is more general, arguing for recreational opportunities and ecological improvements, although they do not want to get involved in the De Burd area in terms of ownership and funding: they are only involved because the redevelopment plans are currently clashing with their zoning policies. Wetterskip Fryslân has the creation of embankments around the De Burd isle as an important position. More in general, it aims to realise the national safety norms and enlarging the capacity of the Frisian water bodies. The recreational organisations are in favour of the recreational waterway, whereas the landscape and culture-historical organisations are supporting the current plan as well, although having stake-specific conditions concerning maintenance of the typical landscape and culture-historical characteristics of the area, agitating against the earlier

plans of depolderizing De Burd and creating marshy nature (De Mik, 1998; Leeuwarder Courant, 1995). The positions and interests of the landscape-related and recreational groups are relatively local, respectively relating to aesthetical preferences and ensuring possibilities for leisure and recreation in the area, indirectly creating economic opportunities for retail in the Grou region.

Figure 4.13
ACTOR POSITIONS & INTERESTS - 'De Burd'

ACTOR	Farm	L/CH org.	Recr. org.	WF
POSITION(S)	Compensation for relocation, stay active in nature areas by private management schemes.	Replacement of mills, no marsh-like nature.	Develop the recreational waterway in the Suderburd.	Creation of natural banks and facilitating the plans of the province and IFG.
INTEREST(S)	Economic opportunities, spatial structure suitable for infrastructure	Remain the characteristics of the landscape and the historical values.	Sustain economic opportunities for the recreational sector and the values of the area.	Meeting national safety norms and enlarging the capacity of the Frisian water bodies.

Prov.	Lwd	IFG
Developing new nature on De Burd, agricultural changes and recreational waterway	No new possession in the area, remo-ving agriculture in favour of nature and recreation.	Water management based on nature goals, extensive land use in order to improve nature values
Improving economic position of agri-cultural/recreational sector, enlarging robust nature areas	Increasing recreational opportunities around Grou, utilize ecological opportunies for liveability.	Improving biodiversity and the desired species.

Positions & interests on De Burd

The positions and interests of the selected actors in the De Burd case are shown in figure 4.13. In this case, It Fryske Gea has the leading role, with the increase of biodiversity and certain region-specific species as their main interest. The province is the steering actor for the Swette-De Burd land consolidation as a whole, having its plea and interest spread over all the main elements of the plan: agricultural restructuring, nature development and boosting the recreational sector. The farmers on De Burd, officially represented by LTO in t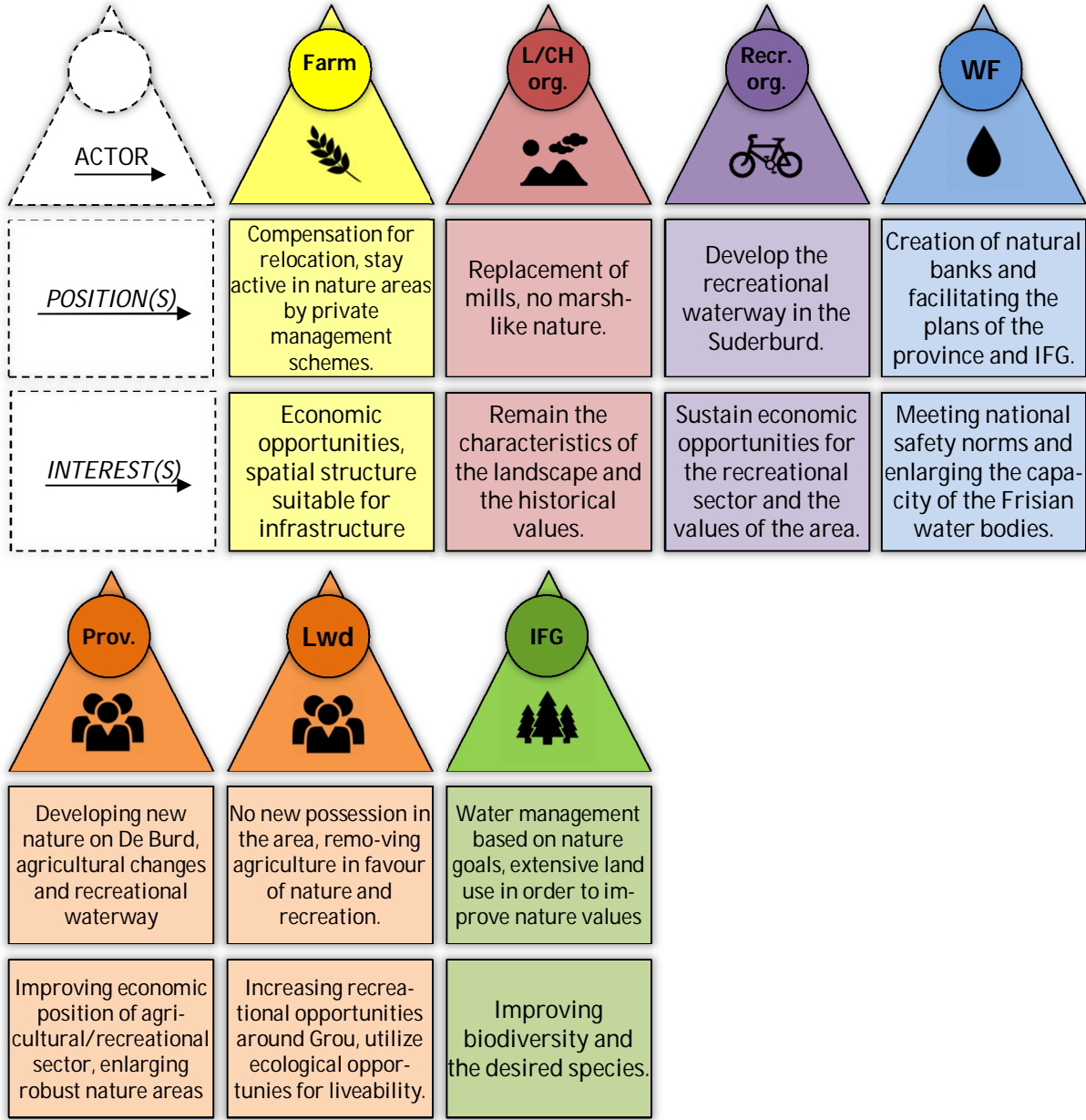he administrative board, are mainly concerned with ensuring decent economic opportunities for their agricultural companies, which

depends largely on the agricultural structure that the land consolidation plan is realising in the overarching Swette-De Burd area. Municipality Leeuwarden, since 2014 the successor of the municipality of Boarnsterhim, supports the main plan, although they have no stake in terms of ownership or funding in the nature development element of the plan. Their interest is more general, arguing for recreational opportunities and ecological improvements, although they do not want to get involved in the De Burd area in terms of ownership and funding: they are only involved because the redevelopment plans are currently clashing with their zoning policies. Wetterskip Fryslân has the creation of embankments around the De Burd isle as an important position. More in general, it aims to realise the national safety norms and enlarging the capacity of the Frisian water bodies. The recreational organisations are in favour of the recreational waterway, whereas the landscape and culture-historical organisations are supporting the current plan as well, although having stake-specific conditions concerning maintenance of the typical landscape and culture-historical characteristics of the area, agitating against the earlier plans of depolderizing De Burd and creating marshy nature (De Mik, 1998; Leeuwarder Courant, 1995). The positions and interests of the landscape-related and recreational groups are relatively local, respectively relating to aesthetical preferences and ensuring possibilities for leisure and recreation in the area, indirectly creating economic opportunities for retail in the Grou region.

4.4.2 Interests: mutual gains or tension?

When analysing the degree of societalization in the nature development policy domain in terms of the discourse, it are not so much the isolated positions and interests that matter, but the way they mutually relate and show dissensus or consensus. In other words: have mutual gains been found between actors with different stakes in the process, or do the interests reflect tension? In the two cases that have been analysed, five main combinations of interests can be listed which show mutual gains, tension or both. It concerns the relation between nature and water safety and management, nature and recreation, nature and agriculture, nature and local liveability and nature and archaeology. Next, they will pass the review one by one.

1. Jointly managing water and nature
The first case of mutual gains in both De Onlanden and De Burd is the spatial combination of nature development with water management (figure 4.14). In De Onlanden, this synergy is most prominent. After the flood in and around the city of Groningen in 1998 and the letter of minister Veerman in 2004, the idea was raised to combine nature development and the water storage issue in the existing land consolidation projects of Peize and Roden-Norg, supported by the villagers organziations, the municipalities and the province form the perspective of water safety. Since water storage requires a compact area which is minimally used by farmers or inhabited, the aim of nature organisations like Staatsbosbeheer and the local IVNs for a large, undisturbed and unfragmented robust marsh system could well be incorporated. Another advantage of incorporating the urgent plans for a water storage area was that it fastened and enlarged the proposed realisation of nature development:

> 'Actually, there were very good chances to get a win-win situation, you could achieve a much more robust nature than originally planned. An additional 450 hectares of NEN-nature was created because this extra surface needed to create enough water storage capacity.'
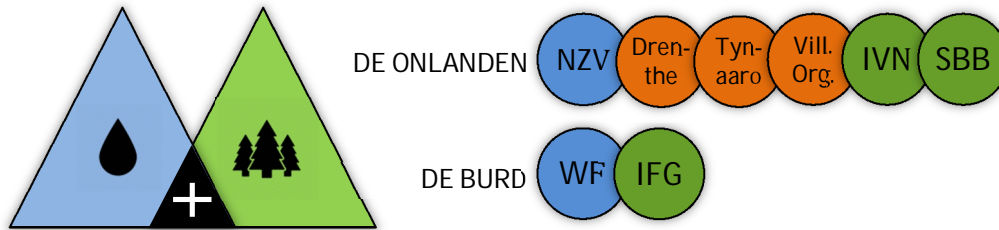> Barend Buijs, Province Drenthe [De Onlanden]

Figure 4.14 – *Combining nature and water management goals. The triangles represent the stakes which show mutual gains, the circles represent the actors within the two cases that reached consensus between these interests (when overlapping) or the actors which interests show tension (when separated).*

However, the precise implementation of this combined land used generated at least some tension between the interests of the water board on the one hand and the nature management organisations on the other:

> *'We strived for a degree of permanent wetness. There has been much debate on that issue, and there still is. Because you can imagine, that when a water level of minus 50 centimetres in the area [comparable to an average between minus 70 and minus 93 in the current area], the water storing capacity decreases.'*
> Aaldrik Pot, Staatsbosbeheer [De Onlanden]

In the final plan, a compromise was agreed upon wherein the area was compartmentalised, with different water levels for each compartment. This debate touches upon the future management: nature management organisations, responsible and paying for the nature management, aim for limited management, whilst the water board fears a decrease of the water storage capacity in extensive management.

On De Burd, the water management interests of Wetterskip Fryslân and the nature development of It Fryske Gea also proved to be an example of mutual gains, although less prominent as in De Onlanden. Wetterskip Fryslân can meet the KRW-norms by creating natural banks around the island and the national water safety norms. The natural banks have considerable ecological importance, thereby responding to the nature development interests of It Fryske Gea. The adjustments to the banks furthermore contribute to the aim of Wetterskip Fryslân to increase the capacity of the Frisian water bosom.

> *'On the east side of the area, the banks are replaced inwards. The parcels that are thereby positioned outside the low dikes are developed into 'bûtlân' [wetlands with reed]. Also, these measures will increase the space available for the Frisian bosom.'*
> Redevelopment plan 'Swette-De Burd', 3rd implementation module (BC Swette-De Burd, 2009).

2. Nature as a source or threat for recreation?

Figure 4.15 shows that mutual gains could also be reached between nature and recreational interests, although especially in De Onlanden, tension has been traced as well. Amongst the actors in both cases, broad consensus exists concerning the increased possibilities for recreation after the development of nature. A difference between the cases is that on De Burd, the recreational sector is directly represented in the administrative board, whereas in De Onlanden, this is not the case. However, also in De Onlanden, actors with different interests share constructive perspective to recreation in the area. Staatsbosbeheer, primarily a nature management organization, participated in a commission on recreational uses of the area and sees the recreational use as essential for the area:

> *'Concerning recreation, we think people should be able to experience the area. From the start, we discussed how we can create additional recreational developments without damaging the nature objectives, which I think we managed very well.'*
> Aaldrik Pot, Staatsbosbeheer [De Onlanden]

In De Onlanden, an actor that aimed for strong limitation recreational use in order to avoid disturbance of the nature to be developed was IVN Roden, giving objections on a number of elements of the plans. On the other hand, Cnossen Leekstermeer, representing the recreational branch organization Recron, describes that the tension between nature and recreation is unneeded:

> *'Often, recreation was not one of the main pillars. When the first ideas for the plans were launched, it was presented as dealing with 'safety, agriculture and nature development.' […] But at that time, it was already clear that when you don't include recreation from the beginning, all kind of clashes are going to occur.' […] 'Nature and recreation seem to oppose each other, but they don't. However, it is hard to make that clear.'*
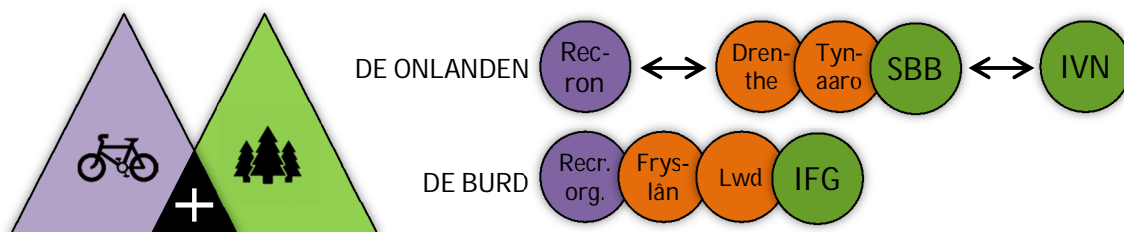> Jelle Cnossen, Cnossen Leekstermeer [De Onlanden]

Figure 4.15 – *Combining recreation and nature goals.*

In the Burd, the recreational interests played an important role in the decision making process, due to the plans for a recreational waterway at the Suderburd, just below the new nature area. In the current plans that are projected on De Burd, both recreational groups province Fryslân and It Fryske Gea see their interests represented. The municipality also sees the synergy between nature and recreation, linking it to the importance of recreational values for the regional economy:

> *'It has all kinds of advantages. Ecology and recreation helps Grou, because Grou also faces hard times. So if you can create some extra value that is important for Grou, looking at the water sports sector, why wouldn't you do it?'*
> Peter Jager, municipality Leeuwarden [De Burd]

In the Noarderburd, the recreational infrastructure is limited to some roads for bikers and hikers. As a compromise to the nature interests, the accessibility is restricted.

3. Nature and agriculture: combining by segregation

The nature and agricultural interests are, from the perspective of land use, the interests with the highest potential of a clash. However, due to the integration of nature development projects in wider land consolidation plans, workable compromises were reached. In short, this compromises feature the segregation of nature and agricultural land use, in order to improve both. In De Onlanden, nature is almost totally isolated from agriculture, whereas on De Burd, extensive agricultural use is still possible in the newly realised nature. This difference lies in the fact that in De Onlanden, nature is being combined with water storage, restraining the possibilities for lucrative agricultural land use. Because of the integration of both interests within the land consolidation plans, the LTO-actors and the nature management organizations effectively reached consensus, supported by actors like the water board (in De Onlanden) and the provinces, as visualised in figure 4.16.
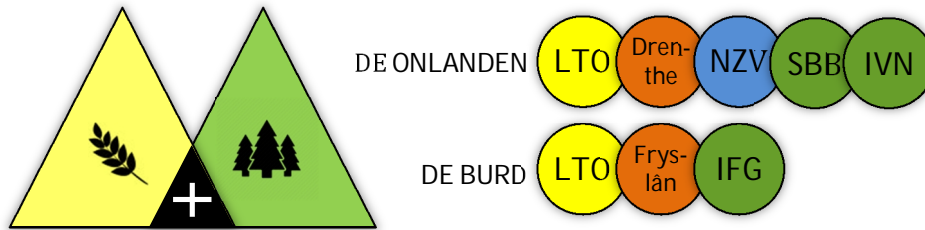
Figure 4.16 – *Combining nature and agricultural goals.*

Essential for reaching consensus was the financial compensation of the duped farmers. In De Onlanden, they were given the opportunity the relocate their companies from the Onlanden area in the north to the higher and dryer lands in the south. This made the agricultural function and sector a third pillar in the spatial redevelopment plans instead of an obstacle. Only one farmer refused to relocate and now has his company located as an embanked agricultural island in the Onlanden area. In general, LTO, as representing the farmers, saw her interests well reflected in the final plans:

> *'...the agricultural sector had to give in 2000 hectares of land, well, of course you want something for that in return. In any case, the companies that remain should be ensured of development possibilities. In our sense, that was well managed.'*
> Hendrik Smeenge, LTO [De Onlanden]

On de Burd, already from the early 1990s, farmers had been relocated in order to increase the territory of It Fryske Gea. Today, only one active farmer is working and living on the island. However, on the Burd, the nature development plans do not imply a total exclusion of agricultural practices on De Burd. Due to the grassland-type of nature that is being created, extensive grazing of the land is still possible outside the breeding season.

> *The private owners are participating, and the grasslands will all be rented to farmers from the surrounding areas. It gives them benefits, because they can use the land and they are allowed to count the land they rent for their fertilization accounts.*
> Anton Huitema, It Fryske Gea [De Burd]

Another advantage is that the private owners on De Burd got their land concentrated around their courtyards. Besides, the farmers and renters on the Noarderburd were given the opportunity to participate in a nature management scheme. By these means, the interests of It Fryske Gea and the province on the one hand and the farmers and land renters on the other were partly integrated and tension reduced:

> '*The initiative came from DLG, and we got the opportunity to participate [in nature management]. For us, it is lucrative as well. [...] I am looking forward to start with it.'*
> Hindrik de Boer, farmer [De Burd]

4. Nature as a living area for locals

A fourth case of mutual gains is the way how nature helps to satisfy the interests of the local community, mainly in terms of liveability and recreational opportunity (figure 4.17). In De Onlanden, this is most evident, because of the relatively large local community in the area. There is consensus amongst the local villager's organisations, the municipalities, the recreational entrepreneurs and nature management organisations about the boost that the nature development can give to the area its liveability. They argue how De Onlanden can benefit from a more attractive landscape within their living area. As the municipality of Tynaarlo describes its interest:

'One of the ambitions is that we are striving for making this region the most beautiful residential and working area of the Netherlands. Well, for instance by developing nature close to residential areas, you definitely contribute to a great 'runout area' for your inhabitants to experience.'
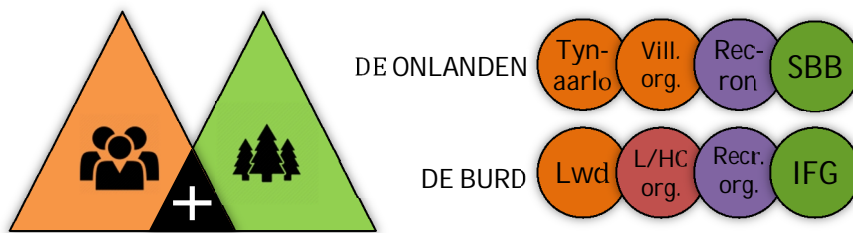Jaap Nanninga, gemeente Tynaarlo [De Onlanden]

Figure 4.17 – *Combining nature and local community interests.*

Dorpsbelangen Roderwolde uses similar words to describe how De Onlanden contributes to a more liveable area or 'back yard' for the local villagers. Not only now, but also in the future, since De Onlanden functions as a 'buffer between us and the city', referring to the expanding city of Groningen. At minor aspects, there was unrest amongst the locals, for example because of fears that flies might be attracted to the wetlands. Also, heavy traffic due to excavation activities and the initial plans to cut down a small parcel of wood lead to protest. However, Dorpsbelangen Roderwolde – representing the local community – was content with process and was happy with the communication with DLG, which office was located in Roderwolde.

On De Burd, the local community is small and local actors are relatively less concerned in liveability. Amongst the landscape or culture-historical organizational actors like 'Stichting Behoud Fries Culturlandschap Mid-Fryslân', the 'Fûgelwacht' and the 'Molenstichting', there is consensus on the current plans. However, halfway the 1990s, when the plans to depolderize De Burd into a marshy nature area like De Onlanden nowadays emerged; there was huge tension between those actors and the actors in the board. Many inhabitants of De Burd and the surrounding areas, together with the former municipality Boarnsterhim, heavily protested against the provincial plans (De Mik, 1998; Leeuwarder Courant, 1995). The current plan includes a less radical landscape change and satisfies the interests of both groups of actors, and therefore their positions.

5. Archaeology versus nature and safety goals

Concerning the archaeological interests in De Onlanden, tension arose during the planning process (figure 4.18). The archaeological interest, as defended by the provincial archaeologists, conflicted with the fact that a considerable part of the soil archive had to be diminished because of the new nature and water storage area, including numerous peat mounds with a high archaeological value. During the planning process, research was conducted to these artefacts and around ten of the peat mounds were covered, with total costs of almost two million euros. Looking from a broader landscape-historical and culture-historical perspective, there is tension as well. In the Onlanden, the structure of the former cultural landscape is largely changed in order to create the ideal conditions for wet nature types, which has led to critique from several experts (Zomer & Elerie, 2009).
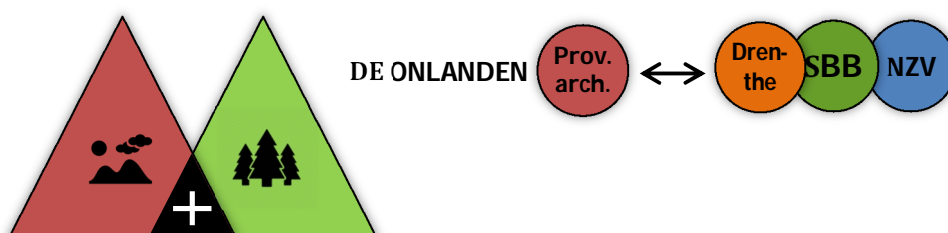

Figure 4.18 – *Combining nature goals with landscape and cultural historical goals.*

4.4.3 Nature values

Next to positions and interests of the actors, values have been deduced from the interviews as well. Since the values have a highly personal character, they are hard to formulate and compare for and between every single actor. Therefore, the values found are described in a general way, referring to the interviewees for means of illustration. The consensus amongst values of the field of actors concerning the project are analysed in two categories. Concerning the nature values, three findings are presented in this paragraph: the importance of nature for the spatial quality of the area, the historical reference of newly developed nature and nature management.

1. Nature as intrinsically enriching
Amongst the field of actors in both cases, huge consensus exists on the importance of improving the quantity and quality of nature, after decennia of negatively valued degradation. In De Onlanden, the nature development is appointed as unique in Drenthe and the Netherlands and beneficial for the quality of flora, fauna and bio-diversity. Also by developing nature on the Burd, the main line of reasoning is that the already existing nature in the increases with positive effects for flora, fauna and biodiversity. Also other actors than nature management organizations share this view:

> '... [in the Onlanden,] there are very good opportunities to create rare types of nature. And certain nature types are valuable and worth it to develop.'
> Barend Buijs, Province Drenthe [De Onlanden]

> 'Within the Netherlands, it [the Onlanden] is quite a large area and it is quite unique as well [...]. I can understand that is has certain interests for certain animal species and birds, it is a unique chance to give those more space. In itself, that is very nice.'
> Jelle Cnossen, Cnossen Leekstermeer [De Onlanden]

> 'They are doing something here for flora and fauna which we firmly stand behind, it is something we will always support.'
> Peter Jager, municipality Leeuwarden [De Burd]

At the same time, next to this so-called intrinsical values on nature, clear examples can be found of more funcional perspectives. Noorderzijlvest for example, the water board in the De Onlanden case, has a strictly functional view on the area as water storage. Furthermore, mainly the utility of the area for recreational and liveability purposes are stressed by some of the actors.

> 'Because the rifts that are dug in the nature area, you get a considerably different sense of the area compared the grassland there was before. So the area certainly gets an additional dimension, which I think that many people will appreciate. The ability to enjoy the area, when you are sitting there at night, when the sun sets, and you're watching across the water to the horizon, with the trees, the wilderness, the animals flying over...'
> Roelof Blomsma, Dorpsbelangen Roderwolde [De Onlanden]

2. Nature as how it was and should be again
The development of nature in De Onlanden is associated with a return of the 'authentic' or 'original' natural landscape without human disruption, after decennia of nature decline. This ecological reference is shared amongst most of the actors, and is in line with the likewise common perspective on nature as something without or with limited human interference in ideal terms.

> 'Originally, this is how the area looked like, when you look back very far. In fact, in its origins, it was one of the most wet and low areas in Drenthe.'
> Aaldrik Pot, Staatsbosbeheer [De Onlanden]

'I think that a piece of authentic nature will return here, making the area lean to its origin.'
Roelof Blomsma, Dorpsbelangen Roderwolde [De Onlanden]

In De Burd, the ecological reference does not refer to the pre-historical period. Instead, the plans reflect a reference to the rather 'traditional' agricultural landscape as could be found on De Burd before the Second World War. By using the theory on periods of landscape change as developed by Londo, the difference in ecological reference between the two cases can be made clear, illustrated in figure 4.19 (Londo, 1997).
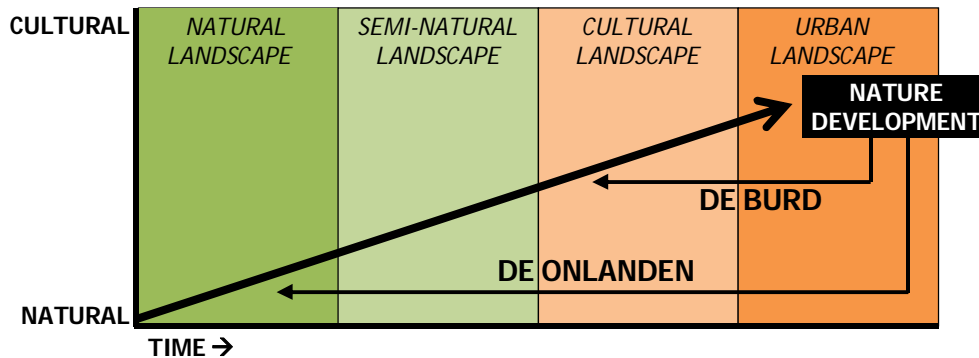

Figure 4.19 – *Historical landscape references of nature development for the two cases.*

A related value concerning the proposed landscape changes is that, unless the area will be redevelop to a NEN-designated nature area, the main actors do not see the cultural landscape as replaced by a natural landscape, although they do recognize a naturalizing trend in the landscape.

It is a cultural landscape and it will stay a cultural landscape. In the Netherlands, we have 'stamp nature', no real natural landscapes.
Klaas Bartlema, Wetterskip Fryslân [De Burd]

'Everything we change in different landscapes, everything is purely human intervention. [...] It is nice what we do, but it a matter of gardening.'
Jaap Nanninga, municipality Tynaarlo [De Onlanden]

3. Wild versus tamed nature

The previous point provides a smooth bridge to the values concerning the management of nature. Figure 4.19 on the ecological reference already indicates the problematic situation in De Onlanden in this respect. When nature is being developed with the pre-human situation as reference, management should be absent or strongly limited; while on the other hand, the cultural practice of ecological restoration indirectly implies human control and management. On this notion of nature management, the values in De Onlanden diverge. Staatsbosbeheer, together with parties like the municipality of Tynaarlo and province Drenthe, argue for a limited level of management in the area, in order to create a 'robust' ecological system. It means that the ecological processes that will occur will be guiding in the management plans, instead of actively managing nature in order to create certain nature types:

'We will adapt our nature management plan to that [type of nature] what is going to emerge here.'
Barend Buijs, province Drenthe [De Onlanden]

'Our starting point is: no management, unless...'
Aaldrik Pot, Staatsbosbeheer [De Onlanden]

However, the vision is opposed by that of water board Noorderzijlvest. Based on their water management-related interests, they are mainly concerned in the water storage that is created. In

order to optimize the functionality of this water storage, the correct management of the new nature area is very important:

> *'The nature management organizations [Staatsbosbeheer, Natuurmonumenten] have to manage, but it costs money, and they must make the most of the money. So in consequence, they will manage less, but that [...] leads to a reduction of the water storing capacity in the area.'*
> Gerard Zeemans, Noorderzijlvest [De Onlanden]

Meanwhile, in the De Burd case, there is broader consensus about the need to manage the nature that is being developed. In terms of Londo, the cultural landscape which is the ecological reference already implies an extensive way of using and managing the land being desirable on De Burd. The plans for a more unmanaged, wetland type of nature with marshes and no dikes, raised in the 1990s, lead to protest from different corners. Thereby, the nature management values in De Burd clearly touch the way how people value the landscape in the area, which is discussed in more detail in the next paragraph.

4.4.4 Landscape values

The second category of values are the landscape values: values that are not solely referring to the nature, but to the landscape in general and its spatial quality. Two main groups of values are discussed here. The first refers to values on the quality of the existing agricultural landscape from before the nature development implementation. Secondly, the values of the actors related to the typical landscape characteristics of both areas are being studied.

1. Agricultural quality under pressure
In the two cases, the most radical change in terms of land use is the relocation of agricultural companies. It is the core of the land consolidation plans, which were set up to increase the spatial quality in the area by restructuring the landscape. The specific way in which the agricultural landscape was under pressure differs per case. Whereas in De Onlanden, it is the poor quality of the farmland that was the catalyst for redevelopment, in the De Burd case, it mainly was the poor accessibility that pressured the quality in terms of agricultural use.

Not only LTO as an agricultural representative, but amongst the whole field of interviewed actors in De Onlanden, strong consensus exists about this poor agricultural quality. Mainly the wet conditions are mentioned, since the area mainly consists out of peatland, originated due to the large amount of water that the relatively low area has to process. In fact, this also explains the suitability of the area as water storage.

> *'From an agricultural point of view, you can't get the optimal output from this area.'*
> Hendrik Smeenge, LTO [De Onlanden]

> *You have to know that for the farmers, it already had almost no meaning, because it was much too wet to decently grow crops or to let your cattle run.*
> Aaldrik Pot, Staatsbosbeheer [De Onlanden]

On De Burd, it is not that much the quality of the farmland and the soil itself that proves to be threatening. Views on the suitability of the farmland differ, but there is consensus on the limitations of the accessibility for the agricultural possibilities on De Burd. The indirect result of this shared value was that both nature and recreation were chosen to become the main functions on De Burd:

> *'The land is good enough; it is purely the connection with the main land. In the past, there was discussion on digging a tunnel here, but they rejected it due to the costs.'*
> Hindrik de Boer, farmer [De Burd]

> *'You always have to use the ferry and pay for it as well; the accessibility is limited, the ferry isn't in use 24 hours a day. It was something the farmers could cope with in the past, but now, they got the opportunity to get financial compensation and move to the mainland. [...] Most of the farmers choose to leave, also because from an economic perspective, farming on an island like this isn't profitable these days.'*
> Anton Huitema, It Fryske Gea [De Burd]

2. The importance of maintaining the landscape's soul

A second shared value amongst the actors in both cases is – in general terms – the appreciation of some of the characteristics of the cultural landscape and the firm will to maintain these. In De Onlanden, this mainly concerned the open character of the landscape, with almost no trees or other view polluting objects within the area and a wide view. Many actors emphasize that this open character is 'natural' to the area and should be preserved.

> *'We hope that it stays that open. That is quite a concern, the management side of the story, that is will not be filled with birches and alders.'*
> Roelof Blomsma, Dorpsbelangen Roderwolde [De Onlanden]

> *'But the character of the area, the openness, that will stay, of course. That is at least what I hope. Some people say that a forest might emerge. Well, I'm happy that is not the case until now.'*
> Gerard Zeemans, Noorderzijlvest [De Onlanden]

The openness of the area is something that is directly connected to the tension between the management values and interests of Noorderzijlvest on the one hand and the land management organizations on the other. As stressed before, an autonomous development of nature with limited management has the risk not only to decrease the water storing capacity of the area, but furthermore, the succession of the vegetation can threat the openness of the area. Clearly, management strategies in the future have the risk to not only affect the water management interests, but also the values of many actors.

In the Swette and De Burd region, the existing agricultural landscape as a whole is highly appreciated. This is perfectly illustrated by the reactions from society on the plans to create marsh-like nature that were dropped in the 1990s. It lead to the foundation of the 'Stichting Behoud Fries Cultuurlandschap Mid-Fryslân' in those years, explicitly aiming for the maintenance of the existing cultural landscape, characterised by grassland. Their main fear was that swampy forests would be created in the proposed nature area, threatening the high valued openness of the area (Leeuwarder Courant, 1995). Different political parties on the provincial and municipal level distanced themselves from the initial plans. As the provincial politician De Wolf was quoted in 1998 in a national newspaper: 'Marshland does not belong to the open Frisian grassland landscape' (De Mik, 1998). Another actor that agitated against these plans was the local bird watchers organization, who feared that the grassland bird species would leave the area when their habitat would be disrupted by creating wet, swampy types of nature (De Mik, 1998). The protest proved to have effect, since the current plans are taking the existing grassland landscape as a starting point, maintaining the Noarderburd polder as it has always been. In one of the interviews, the appreciation of the cultural landscape was mentioned as follows:

> *'This is characteristic for the Netherlands, of course, the bird-rich grasslands. These just belong here; they are part of the Frisian landscape.'*
> *'... [on the Burd] plot structures from around 1500 can be traced; it has been farmland for a very long time. We want to conserve these culture-historical elements that can be found here, the traditional land as it used to be. That suits best to the birds as well.'*
> Anton Huitema, It Fryske Gea [De Burd]

4.4.5 Wrap up: common values, compromised interests

After discussing all three layers of the actor's so-called 'golden triangles' – positions, interests and values – this last and concluding paragraph focuses on formulating conclusions on the societalization process from the discourse perspective. Before translating the results in three main concluding statements, these results are summarized in table 4.4, giving an overview of the interests and values in both cases.

Interests	De Onlanden	De Burd
1. Nature and water management	Consensus about jointly realising new nature and a water storage area.	Water management incorporated in the measures for nature development.
2. Nature and recreation	Recreation incorporated in the plans, but not as main pillar and with dissensus on its degree.	Recreational waterway as main and broadly supported development next to the nature development.
3. Nature and agriculture	Consensus on agricultural relocation and restructuring as one of the land consolidation plan's main pillars.	Consensus on agricultural relocation and restructuring as one of the land consolidation plan's main pillars.
4. Nature and the local community	Local community supports the plans and benefits.	Local interests mainly served by recreational and agricultural means.
5. Nature an archaeology	Archaeological interests conflicting with the plan's interests.	-
Nature values	*De Onlanden*	*De Burd*
1. Nature as intrinsic and enriching	New nature as an intrinsically improving the landscape its quality.	New nature as an intrinsically improving the landscape its quality.
2. New nature and its historical reference	Broad valuation of the historical, natural landscape to get back.	Broad consensus of realizing nature values within the cultural landscape, referring to the 'traditional' agricultural landscape.
3. Nature management	Conflicting values: limited management versus strong steering.	Common values of extensive cultural use in the nature area.
Landscape values	*De Onlanden*	*De Burd*
1. Landscape and its agricultural potential	Poor agricultural conditions of the farmland.	Reasonable agricultural conditions, but accessibility as the main bottleneck
2 Landscape and maintenance of its characteristics	Openness is highly valued and there is broad consensus on its maintenance.	The existing agricultural landscape characteristics and the related flora and fauna are highly valuated and should be maintained.

Table 4.4 – *Interests and values summarized for both cases.*

Table 4.4 shows that De Burd and De Onlanden are quite similar concerning the mutual gains that have been reached between interests and the common grounds that were witnessed in terms of values. The main difference are that in the De Onlanden case, water management and safety is a main pillar in the land consolidation plans, which is not the case is De Burd. Furthermore, the type of nature that is realised and the related management strategies are different. Despite these differences and despite the minor tensions in the discourses of the two cases, both are characterized by compromises on actor's positions and interests, with shared actor's values as a fundament of successful societalization of nature development. This concluding statement is explained in three steps:

1. Synergy on interests behind conflicting positions
Although the actor's positions in both cases showed numerous different perspectives towards the nature development projects, these could successfully be combined into mutual gains on the interest level. Besides development of new nature, in both De Onlanden and De Burd, recreation, agriculture, water management and the local community interests were served in the plans,

which show a high level of synergy of different ecosystem services. In other words, consensus has been built through principled negotiation or collaborative planning strategies (Fisher & Ury, 1983; Healey, 2006; Innes & Booher, 1999a). This is exactly in coherence with the aims as exposed in the 'Nature for people, people for nature'-policy, which pleas for involving numerous stakeholders in nature development projects and stressing the user-related values – or ecosystem services – of nature instead of only the intrinsic value (Ministerie van LNV, 2000). That is why concerning the compromises on interest in the cases, the policy discourse has clearly been societalized. Nature development is linked to existing spatial agenda and therefore has broad support amongst actors with different stakes. However, although in general, many interests of actors are being incorporated in the plans, not all have been equally incorporated. In the De Onlanden case, archaeological and cultural-historical interests played a subordinate role and compared to the three main pillars, recreation was relatively subordinate as well. As Ferranti et al. (2014) already pointed out, this is a common consequence of the selective inclusion of actors in a closed-governance setup.

2. Common values, common ground for landscape change

According to Keulartz et al. (2004), the compromises on interests would be labelled as a functionalist approach. As the MGA argues likewise, behind the mutual gains that have been reached on the interest level lie values which can be as important for strengthening 'equal coexistence', as Keulartz et al. advocate with their 'structuralist approach' (2004). The next point connects the interests with values, as shown in figure 4.20. In De Onlanden and De Burd, shared values on both nature and landscape exist, playing a pivotal role in the compromises on the interest level. They help to understand why the support for the land consolidation plans is so broad. In both cases, the desire for agricultural restructuring on a regional level on the one hand and the perceived unsuitability for agriculture on a local level make that redevelopment is supported by the former main land users: farmers. This is one of the reasons that the land consolidations were started in the first place. Other common values are the enrichment of the existing landscapes by improving nature values and the agreement on valuing a certain historical reference for this new nature. The common ground in values explains why tension on the interest level on issues like nature management, the nature target types and individual relocations did not insuperably frustrate the process. Figure 4.20 illustrates this comprehensive argument for De Onlanden and De Burd in one figure, showing the ecosystem services or main land uses that have been compromised, together with the most important correlating interests and the common ground in terms of shared values.
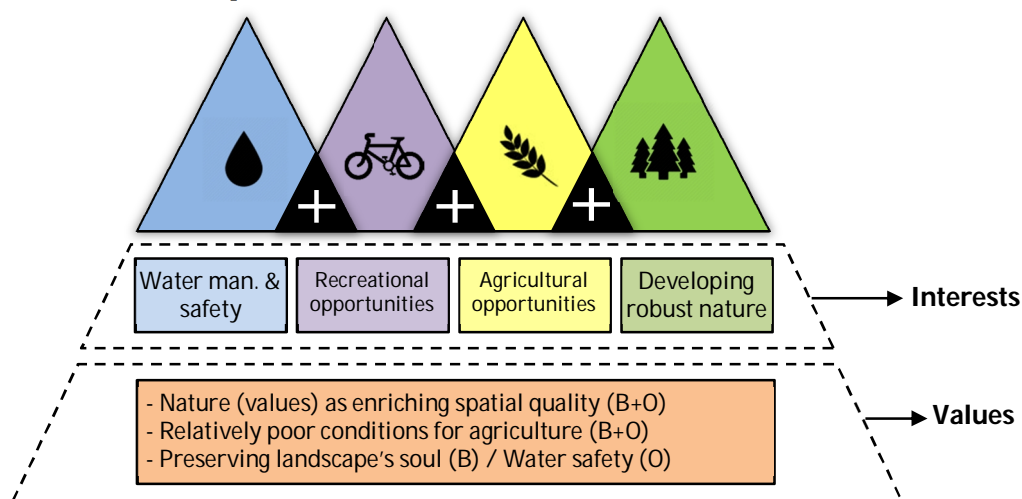

Figure 4.20 – *Compromises on interests and common grounds on values. B = De Burd, O = Onlanden.*

3. The importance of values to minimize the risk of alienation

Finally, the analysis of the positions, interests and values in the policy domains revealed another significant outcome. Within the discourses, the importance of maintaining the main landscape characteristics is a continuously returning point. Both cases prove that the implementation of nature development itself does not gain or lack support among society. The history of both cases provides the evidence: in De Onlanden as on De Burd, previous plans, respectively arguing for emergency water storage and wet marsh-like nature, were rejected with the loss of important characteristics as an important argument. Also in the actual plans, many actors exposed such values. In De Onlanden, the openness is a much-cited example, whereas on De Burd, the maintenance of the agricultural identity as part of 'the Frisian landscape' proves to be important.

To put it in more general terms: for 'getting to yes', maintaining important values of the existing landscape is of major importance while redeveloping space in order to increase the spatial quality. When nature development plans or not embedded in the regional or local spatial agenda and are not in line with the society's perceptions of spatial quality, the alienation of the society towards (the plans for) redeveloping the landscape is a huge risk, with protest as a logical consequence. This is in line with one of the statements from Coeterier his dissertation on the perception of landscapes: 'People are not resisting change, it is the opposite. People are resisting the loss of values if these are not replaced for them by new values' (Coeterier, 1987, p.3). In De Onlanden, for example, the changes provide an increased safety, an enrichment of space through new nature and recreational opportunities, thereby raising support within the field of actors and stakeholders. In other words: in both De Onlanden and De Burd, the notions of spatial quality of different actors, as reflected in their interests and values, have been involved in the redevelopment plans, therefore increasing the societalization and so-called social sustainability of the nature development projects (Parra, 2013; Rapoport, 1970).

De Onlanden

Picture by author (2015)

5. Conclusion

The concluding chapter consists out of two parts. First, in section 5.1, the sub questions and subsequently the main question are answered by drawing conclusions from the results, thereby linking back to the theory and the conceptual model of the thesis. In second instance, the research process is discussed and future research options are exposed.

5.1 – Sustaining landscapes by societalizing its governance

Rooting governance in time and space (Q1)

For the first question, three conclusions were formulated. First, in both cases, nature development is embedded in already existing, agriculture-minded land consolidation plans with a relatively long history. It furthermore means that nature development is implemented within a broader spatial agenda. By integrating nature goals in these regional redevelopment plans, the conditions for synergy are created between a range of land uses or ecosystem services in the region. Thirdly, public debate in the recent history of the redevelopment plans influenced the substance of governance, i.e. how and which nature is implemented. When translating these findings to the Social-Ecological Landscape-model, it means that the historical dimension of the SEL-governance needs emphasis, especially its role in shaping the current attitude in society towards NDP's. Also, nature development explicitly has to be placed alongside other spatial projects and developments, instead of isolated. In figure 5.1, the SEL-figure, derived from the conceptual model (figure 2.11), is updated with these conclusions.
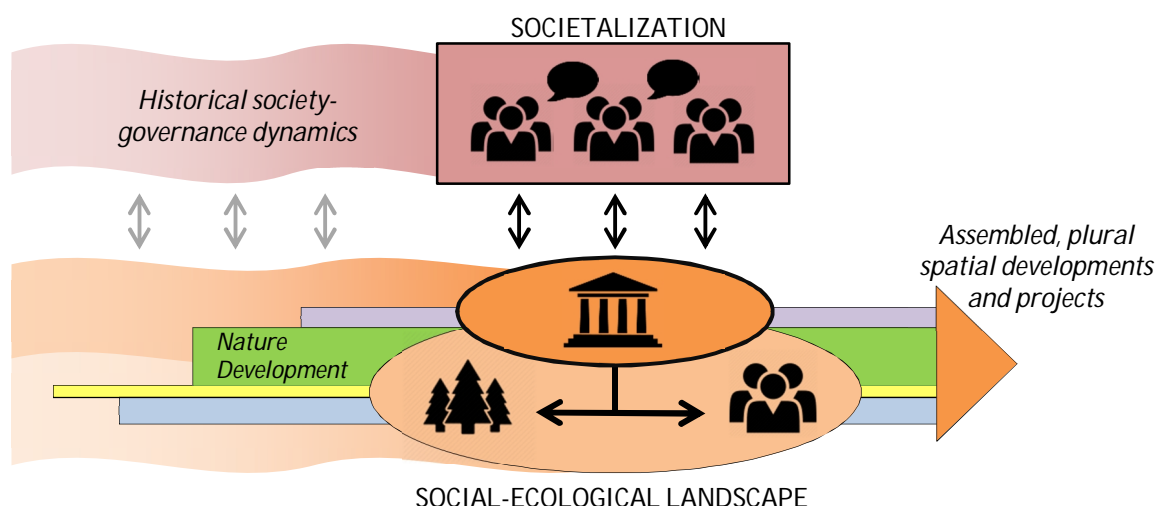

Figure 5.1 – *Adjusted SEL-model. A version of the SEL-model, highlighting the historical dimension and the plurality of the spatial development and projects that are going on.*

Not governance for or by, but with society (Q2)

Since not one right elaboration of societalization exists, the second question stresses the role of the precise organisation of governance within the societalization process, instead of formulating a monochrome judgement on the existence of societalization in the cases. The findings here can be categorised in two parts: the horizontal and the vertical side of the organisation. On the governance spectrum as elaborated by Arnouts et al. (2012) and Kooiman (2003); the horizontal organisations of both cases have been classified as closed co-governance. The actors included in the governing coalitions (administrative boards) are plural looking at their main stake and type, but they form a rather closed entity in the policy domain, with a fixed composition, a clustering of resources within and a strong controlling role for the governmental actors. This can logically be explained by the powerful and rather strict procedures originating from the Rural Development Law, needed to successfully implement the complex land consolidations wherein the nature goals are embedded. The consequence is that societalization is practiced in a rather institutionalised way: not governance by, but with society, in between the hierarchical and self-governance ideal types. In terms of the vertical side of governance, the conclusion is that societalization mainly takes place on the regional level on which the land consolidation projects are organised, although the directives and laws which are guiding for nature development are all coming from the national or even the European level (figure 5.2).
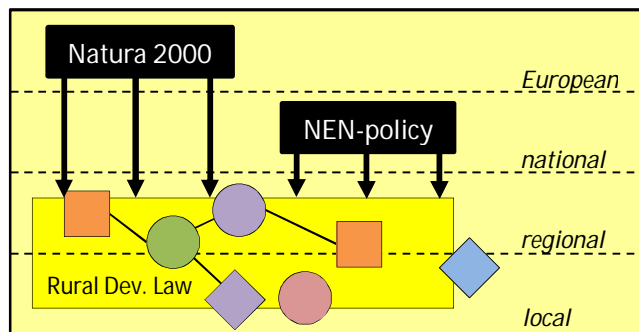

Figure 5.2 – Schematized actor map of the two cases. Schematized actor map, showing the implementation of the nature policies (Natura 2000, NEN) on the regional level in land consolidation plans, legally embedded in the Rural Development Law. Horizontally, plural, rather closed coalitions exist on the regional level, possessing most of the resources and empowering instruments.

Governing landscapes by governing consensus (Q3)

Although many different stakes are involved in the redevelopment plans in both De Burd and De Onlanden, consensus or mutual gains could be found between stakeholding actors. Nature development, as directed from national and European policies (as shown in figure 5.2) has successfully been embedded in existing spatial agendas, exactly as aimed for by the 'nature for people, people for nature'-policy (Ministerie van LNV, 2000). In the two cases that were studied, it mainly concerned synergy between the interests of the water management sector, agriculture, nature and recreation, thereby securing broad support within the policy domain. But, as advocated by the structuralist approach (Keulartz et al., 2004), the value-layer of the 'golden triangle'-pyramid proved to be as important, providing a common ground for the landscape changing measures that are taken, as has been visualised in figure 4.20. By effectively responding to the agricultural disadvantages of the area in the redevelopment plans, it even succeeded to bridge the classical contrast between nature management organizations and the agricultural sector. The case studies learn that, as Coeterier mentions in his dissertation as well, change – like nature development – is not by definition rejected or embraced by society: more crucial is how this affects the values of the landscape, and the way they are replaced by new ones (Coeterier, 1987). Creating nature according to societalized instead of a purely ecological standards, taking in consideration values like (water) safety and the openness and accessibility of a landscape for locals, clearly contributes such to a 'value-loss proof' implementation.

A twofold role of co-governance in societalizing NDP's (MQ)

Taking all the findings on the three sub questions together, the main question can be answered. To recapture: what is the role of co-governance in the societalization of nature development projects in the Netherlands? From the two cases studies that have been studied, co-governance

has proven to play a pivotal role is societalizing the implementation of nature development goals. It forms the spindle that has the potential to – in short – translate society's plural projections of spatial quality into the future and physical reality. In other words: co-governance has the potential to societalize the act of spatial planning, which is traditionally defined as '[...] the conscious intervention in the spatial order, in order to sustain or improve spatial qualities' (Voogd et al., 2012, p.16), because co-governance is helpful to get grip on perceptions of such spatial qualities within society.

When zooming in, co-governance is a means to this societalization process in two different ways, shown in see figure 5.3. First, by involving and empowering actors and their positions, but in particular their interests and values. Thus, the two case studies argue for embracing both the structuralist approach and the mutual gains approach in nature development implementation (Keulartz et al., 2004; Susskind & Landry, 1991). Opposite to this bottom-up way of societalization, a second, top-down way can be distinguished: co-governance as a means to build consensus in society; compromising different uses an opinions into plans that have public support amongst society (i.a. Healey, 2006). The cases studies show that, in the case of reaching consensus for implementing new nature, closed co-governance in the form of plural coalitions is an effective way of doing so, especially when regional spatial agendas in recent history are taken into consideration. Whereas the first role of societalization mainly relates to the organisation of co-governance, the second links up to its substance.
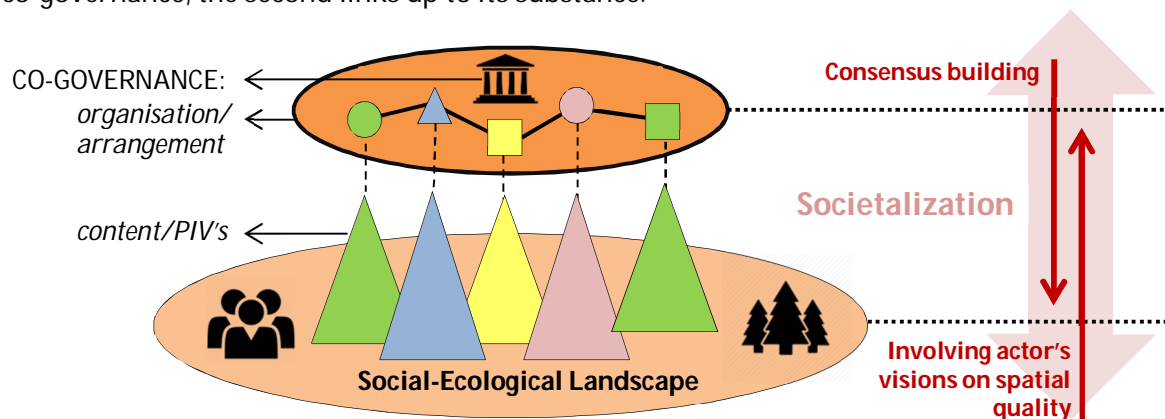

Figure 5.3 – *Model of societalization within SEL-governance. The SEL-model with both the organisation and content component of co-governance outlined, together with the two roles of co-governance in the societalization of NDP's.*

The mediating role of nature

But what are the consequences of those two roles of co-governance in societalizing NDP's in reality? How does new nature developed according to societalized standards differ from purely ecologically implemented nature? The two cases show how nature can be developed that fits into the National Ecological Network and that fits to the regional societies and their spatial agendas as well. Nature combined with water storage in an area that is historically relatively unsuitable for agriculture, as we saw in the De Onlanden case. Or improving nature values in a highly valued cultural landscape, with its characteristics being sustained or even strengthened and with nature management partly being executed by farmers, as is the case in De Burd. Societalized nature then becomes 'humanly mediated nature', as put by Schroevers (1999), or nature that is shaped by a reflection of society its uses, interests and values. Co-governance, in this metaphor, functions as a mediator, bridging the notions of spatial quality within society on the one hand and the physical outlook of our landscape on the other.

From societalization to socially sustainable landscapes

As the conceptual model clearly shows, societalization is a process, not a goal or horizon on itself. Societalization of nature development projects increases the balance within social-

ecological landscapes, mainly on the interaction between governance and society, whereas in the recent past, nature development has been evaluated as technocratic, based on ecological principles (Buijs, 2009; Groote et al., 2006). In terms of Parra (2013), the societalization of NDP's is a prerequisite to create socially sustainable landscapes, mediating in the traditional dichotomy between planet and profit. Or – in terms of Ostrom (1990) – co-governance as a synonym of governing the commons in order to sustain the resources they rely on. The De Burd and De Onlanden case confirm the important role of co-governance on the regional or local level to enable a societalized implementation, showing how landscapes can be radically changed with taking into consideration the existing uses (or ecosystem services) and the actor's notions of spatial quality. Let this be the final statement made in this concluding section. That changing a landscape its 'nature' almost by definition means that society's meanings, experiences and uses in this landscape will be affected. That is why it is beneficial to apply a social-ecological approach to landscapes when assessing nature development implementation. As Wolsink (2000) eminently illustrates in his writings on society's attitudes to windmills, it is not just a spatial change itself that generates either protest or support, but it is the way the implementation of this proposed change is governed. Changing landscapes in a socially sustainable way is about compensating or reshaping existing values (Coeterier, 1987), about keeping (perceptions of) spatial quality within society in mind (Rapoport, 1970) or in short: about societalizing decisions and about the decision to societalize. The case studies in this thesis have shown that and how co-governance is playing a crucial role in this process.

5.2 – Discussion & future music

A number of elements of the thesis research are critically discussed here, including some reflection on the choices made during the process. Strongly connected to these points of discussion are a bunch of recommendations for future research, also being covered by this section.

Generalizability

A first point is the generalizability of the research. Since only two NDP-cases have been studied, the generalizability is by definition limited. However, as stated in paragraph 3.1, not getting a general, but getting a detailed and contextual understanding was the main aim of the case studies. That is why two recent cases of nature development projects were studied. Although the cases were carefully selected, during the research they proved to be quite similar in some unforeseen aspects, like their embeddedness in land consolidation schemes and when looking at the institutional and legal setup. The consequence is that it is not possible to draw conclusions or to predict how co-governance relates to societalization in NDP's which are not related to land consolidation or which are less governmentally steered. However, this disadvantage, affecting the generalizability of the results, does not necessarily harm another important aim of the research: namely to develop a suitable conceptual model which enables the assessment of projects that change landscapes, like the two NDP that are studied.

To build on this research and to increase the general knowledge on societalizing trends in the governance of NDP's in the Netherlands, a quick scan of the NEN-related nature development projects in the country might be an interesting option for future research. Also, comparative studies on the European level can provide useful insights, for example when the implementation of the Natura2000-directives would be used as cases. Some research has already been done in this direction (like Beunen & De Vries, 2011). Besides, future case study research might be useful to study some particular developments. One of them is the role of self-governance or self-organisation in societalizing NDP's, building on the implicit suggestion by – amongst others – Ostrom (1990) and Rotmans (2014) that such 'new-institutionalist' ways of organizing spatial planning might benefit to more societalized and democratic landscapes. An already existing example is an applied research paper by Wageningen University, the Netherlands, on citizen initiatives in nature policy (Ten Cate et al., 2013).

Validity and reliability

Another point that needs discussion is the actor-oriented approach as put forward in the research. Society and societalization have been concretized and assessed by interviewing stakeholders or actors, representing certain groups or stakes in society. However, this implies that no conclusions can be drawn by referring to the opinions, values or interests of 'the public' or the 'lay people'. An extensive qualitative study, for example by using questionnaires or in-depth interviews, would have been needed to draw such conclusions and is an option for future research as well. Such research might also shine more light on the values and perceptions of lay people towards the nature and the landscape (as studied by Van den Berg & Koole, 2006; Buijs, 2009) and towards the degree in which they feel themselves involved or consulted in the planning process. Such research directions would make the field of study move from a governance perspective to environmental psychology or cultural geography, but might nevertheless be relevant to gain insight in the effects of societalization on the level of individuals.

One of the other methodological choices made in the research is to study the planning process after the decisions have been made, so ex-post. It is argued that this makes the research more reliable, since it excludes sudden political or governmental changes to occur, frustrating the

research. However, a disadvantage of an ex-post approach, especially when studying projects with a relatively long history (more than ten years) is the disability to directly show changes during the process, for example related to governance dynamics and the degree of public support or consensus. To overcome such disadvantages, a longitudinal study might be a time-consuming, but interesting alternative.

Further recommendations

Besides the ones already named, three more promising directions for further research were raised by the findings in this thesis. The first is comprehensive research to the implementation of the National Ecological Network, previously called the Ecological Main Structure (EHS), thereby evaluating the effects of this ecological approach to the spatial quality of the Netherlands. By taking the NEN-policy as a starting point instead of local or regional NDP's, the societalization of Dutch nature policy can be analysed and studied at its roots. A more specific starting point for research in this respect is the critique by – amongst others – Schroevers (1999) on the binary approach to nature in the Netherlands: following the essence of current policy, an area is either nature or non-nature; there are no shades of green.

A second suggestion is raised by the strong and explicit references of the value of the 'Frisian landscape' that was found during the interviews in the De Burd case. The actor map even features a local community organisation called the 'Association of Sustaining the Frisian Cultural Landscape'. There are other examples from the province of Zeeland, where the threat of depolderizations caused strong protest. As a national newspaper headed some years ago: 'Depolderisation touches the Zeelandic soul' (De Graaf, 2007). Cultural-geographical research to regional identities in relation to cultural landscapes where nature is developed can provide interesting insights for spatial planners and policy makers. A last suggestion is to connect the Social-Ecological Landscape-model and in particular the societalization-component to the strand of research on Social Impact Assessments (SIAs), which focusses on the social consequences of planning interventions and aims for creating 'a more sustainable and equitable biophysical and human environment' (Vanclay, 2003; Vanclay & Bronstein, 1995). As a tool, a SIA has proven to be an effective way to integrate the social pillar into spatial interventions, thereby raising the question how SIA's can contribute to a more societalized nature policy.

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'Der Mensch beherrscht die Natur, bevor er gelernt hat, sich selbst zu beherrschen.'
Albert Schweitzer

Picture by author (2014)
Valencia, Spain
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Attachments

Attachment 1 – Preparatory note to interviewees

De 'vermaatschappelijking' van het Nederlandse natuurontwikkelingsbeleid

Afstudeerscriptie Wessel van Vliet
Master Sociale Planologie, Rijksuniversiteit Groningen
September 2014 – februari 2015

Het onderwerp van mijn afstudeerscriptie voor de master Sociale Planologie die ik aan de Rijksuniversiteit Groningen volg is 'de vermaatschappelijking van het Nederlandse natuurontwikkelingsbeleid'. Ik doe onderzoek naar de ontwikkeling van nieuwe natuurgebieden in het kader van de EHS/NNN. Concreet wil ik te weten komen welke partijen/organisaties/overheden - kortgezegd actoren - betrokken zijn bij zulke projecten, en of de betrokkenheid van die actoren leidt tot plannen voor natuurgebieden waar ook andere dan strikt ecologische waardes in zijn verwerkt. Ik focus me bij dit onderzoek op twee natuurontwikkelingsprojecten: 'De Burd' in het midden van Friesland en 'De Onlanden' in de kop van Drenthe. Per project onderzoek ik vervolgens:

- welke actoren betrokken waren;
- wat voor elke actor de belangen en standpunten waren;
- wat het uiteindelijke plan werd en
- in hoeverre de belangen/standpunten van de actoren hierin terugkomen.

In het interview hoop ik meer over het volgende te weten te komen:
- Algemene informatie over het project en haar historie.
- Welke rol u/uw organisatie in het project had, en welke belangen/standpunten. En hoe uw organisatie aankijkt tegen natuur en natuurontwikkeling in het algemeen.
- Welke andere actoren en belanghebbenden bij het project betrokken waren.

Contactgegevens:
Wessel van Vliet
Tel. 06-81954373
Email: wessel-vanvliet@live.nl

Attachment 2 – Revised interview guideline

Introductie
Introduce myself, RuG student, etc.
Give a brief explanation of the research: topic, goals, trajectory, status (master thesis)
Explain the role of this particular interview in this research process
Ask for permission to record the interview
Announce the structure of the interview (3 parts)

Deel 1 – project De Burd of De Onlanden
Kunt u uzelf, uw werk en uw dagelijkse bezigheden introduceren?
Wat is de aanleiding van het ontwikkelen van natuur in dit gebied?
Wie zijn de initiators?
Welke andere ruimtelijke opgaves speelden hier?
Wat is de beleidscontext van het project?
Hoe zag het voortraject eruit?
Wat is de chronologie van het project?
Wat zijn inhoudelijk de belangrijkste onderdelen van dit project?
Wat is de huidige status van het project?

Deel 1 – de visie van de actor
Wat was de rol van u in het project?
Wat is uw huidige betrokkenheid bij het project?
Vanaf welk stadium was u betrokken?
Wat waren uw belangen in dit project?
Wat is het nut van het ontwikkelen van natuur in dit gebied?
Wat is de (gewenste) rol van mensen in dit project?
Hoe beoordeelt u de ontwikkeling van de natuur in Nederland gedurende de afgelopen 100 jaar?
Wat is natuur voor u?
Is dit gebied na afronding van het project verschoven in de richting van een natuur- of cultuurlandschap?
Wat is een landschap in uw ogen?

Deel 3 – actor mapping
Kunt u op dit vel papier aangeven wat de belangrijkste betrokken partijen en belanghebbenden zijn geweest bij dit project?

Afronding
Ask for representatives for actors that might be useful to contact/interview?
Are there things we didn't discuss, but that nevertheless might be relevant for this research?
Thanks for the interview, your time and flexibility. I'll send the thesis when finished, in the summer of 2015.
Is it okay if I call/mail you when I have additional questions/remarks? Ask for phone number.

Attachment 3 – Transcriptions and actor maps (overview)

The transcriptions and actor maps themselves are not attached here, but in the table below, an overview is provided of the concerning documents and how they are documented. They can all be retrieved by contacting the author of the master thesis.

Nr.	Name	Case	Date	Transcription	Actor map
1	John Tukker	De Onlanden	03/11/14	Digitally available	Hard copy available
2	Gerard Zeemans	De Onlanden	10/11/14	Digitally available	Hard copy available
3	Hendrik Smeenge	De Onlanden	13/11/14	Digitally available	Hard copy available
4	Jelle Cnossen	De Onlanden	20/11/14	Digitally available	Hard copy available
5	Aaldrik Pot	De Onlanden	23/11/14	Digitally available	Hard copy available
6	Roelof Blomsma	De Onlanden	03/12/14	Digitally available	Hard copy available
7	Barend Buijs	De Onlanden	10/12/14	Digitally available	Hard copy available
8	Jaap Nanninga	De Onlanden	11/12/14	Digitally available	Hard copy available
9	Anton Huitema	De Burd	18/12/14	Digitally available	Hard copy available
10	Klaas Bartlema	De Burd	07/01/15	Not available. Instead, detailed notes are digitally available.	Hard copy available
11	Peter Jager	De Burd	09/01/15	Digitally available	Hard copy available
12	Hindrik de Boer	De Burd	10/01/15	Digitally available	Hard copy available

Attachment 4 – Code tree for analysing interviews

Question	Code	Explanation (*italic is in Dutch*)
Q1 – How are the current nature development projects embedded in the recent history of landscape governance in the two cases?	Q1/AANL	*Aanleiding natuurontwikkelingsproject*
	Q1/BC	*Beleidscontext*
	Q1/RO	*Ruimtelijke opgaves*
	Q1/CHR	*Chronologie/voortraject*
	Q1/INH	*Inhoudelijke onderdelen*
	Q1/ST	*Status natuurontwikkelingsproject*
	Q1/FUNC	*Functies/ecosysteemdiensten*
Q2a – Which actors are, both directly and indirectly, involved in the NDP?	Q2a/ACT	Actor maps
	Q2a/AR	*Actor rol*
	Q2a/HB	*Huidige betrokkenheid*
Q2b – Which type of governance arrangement do both cases show, based on the actors, power aspects and rules, and what are its implications for the societalization of the NDP?	Q2b/GA	Governance arrangement
Q3a – Is there consensus amongst the field of actors on the level of positions?	Q3a/POS	Actor positions
Q3b – Is there consensus looking at the actor's interests?	Q3b/INT	Actor interests
Q3c – Is there common ground amongst the values of actors concerning the way the landscape is changed by creating nature?	Q3c/VALN	Values concerning nature
	Q3c/MAN	Values concerning management
	Q3c/VALL	Values concerning landscape
	Q3c/VNEN	Values concerning the project

Attachment 5 – List of relevant (policy) documents

The (policy) on case-level that have been used are listed below. Some of them have explicitly been used in the text of the thesis: these are included in the references.

Nr.	Name	Case	Organisation(s)	Date
1	Herinrichting Peize, inrichtingsplan	De Onlanden	Projectbureau Herinrichting Peize	04/03/2008
2	Inrichtingsplan Waterberging – Natuur Roden-Norg	De Onlanden	Dienst Landelijk Gebied (DLG)	12/06/2007
3	Structuurvisie Archeologie gemeente Tynaarlo	De Onlanden	Gemeente Tynaarlo	28/05/2013
4	Structuurvisie Landschaps-ontwikkelingsplan Tynaarlo – Publieksversie	De Onlanden	Gemeente Tynaarlo	06/2010
5	MER Waterberging Herinrichting Peize	De Onlanden	Dienst Landelijk Gebied (DLG), regio Noord	20/07/2006
6	Factsheet Herinrichting Peize	De Onlanden	Projectbureau Herinrichting Peize	2010 (?)
7	Presentatie gedeputeerde Rein Munniksma	De Onlanden	Provincie Drenthe	15/04/2009
8	Eindrapportage waterberging Peize-De Onlanden	De Onlanden	Waterschap Noorderzijlvest	08/2014
9	Newsletters (numerous volumes)	De Onlanden	Projectbureau Herinrichting Peize	
10	Raamplan herinrichting Swette-De Burd	De Burd	Bestuurscommissie Swette-De Burd, Dienst Landelijk Gebied (DLG)	08/2000
11	Herinrichting Swette-De Burd, derde uitvoeringsmodule	De Burd	Bestuurscommissie Swette-De Burd	10/2009
12	Ruimtelijke onderbouwing omgevingsvergunning vaarverbinding De Burd	De Burd	Gemeente Boarnsterhim	25/09/2014
13	Newsletters (numerous releases)	De Burd	Bestuurscommissie Swette-De Burd, provincie Fryslân	
14	Voorontwerpplan / Milieu-effectrapport herinrichting Swette-De Burd	De Burd	Landinrichtings-commissie Swette-De Burd	05/1999
15	Werynrjochting Swette-De Burd II (CD)	De Burd	Dienst Landelijk Gebied Friesland	05/1999
16	Inspraakreactienota De Burd + kaartbijlage (CD)	De Burd	Dienst Landelijk Gebied Friesland	29/06/2000
17	Presentatie 'Inrichting De Burd' (CD)	De Burd	Dienst Landelijk Gebied Friesland	29/06/2000
18	Nationaal Park De Alde Feanen. Beheers- en Inrichtingsplan. 'In Nije Faze'.	De Burd	Overlegorgaan Nationaal Park De Alde Feanen	2005

Attachment 6 – Actor table 'De Onlanden'

Nr.	Name (*interviewee*)	Stake	Scale	Governance involvement	Actor type
1	Staatsbosbeheer *Dhr. A Pot*	Nature	Regional	Adm. board	Semi-governmental
2	LTO *Dhr. H. Smeenge*	Agriculture	Regional	Adm. board	Market
3	Natuurmonumenten	Nature	Provincial	Adm. board	Civil society
4	DLG *Dhr. J. Tukker*	Administrative	Provincial	Adm. board	Governmental
5	Kadaster	Administrative	National	Adm. board	Governmental
6	Gemeente Tynaarlo *Dhr. J. Nanninga*	General	Municipal	Adm. board	Governmental
7	Gemeente Noordenveld	General	Municipal	Adm. board	Governmental
8	Provincie Drenthe *Dhr. B. Buijs*	General	Provincial	Adm. board	Governmental
9	Waterschap Noorderzijlvest *Dhr. G. Zeemans*	Water management	Regional	Adm. board	Governmental
10	Community organizations *Dhr. R. Blomsma*	General (residents)	Local		Civil society
11	IVN Peize & Roden	Nature	Local		Civil society
12	Residential representative	General	Local	Adm. board	Civil society
13	Recron / Cnossen Leekstermeer *Dhr. J Cnossen*	Recreation	Regional /local		Market
14	Gemeente Leek, Gemeente Groningen	General	Municipal		Governmental
15	Drents Landschap	Nature	Provincial	Adm. board (indirect)	Civil society
16	Provincial Archaeologists	Cultural history & landscape	Provincial	Adm. board (indirect)	Governmental
17	Utility companies	Other	Regional /national		Market
18	LC Roden-Norg	General	Regional		Governmental
19	NMF Drenthe	Nature	Regional		Civil society
20	Stichting Natuurbelang De Onlanden	Nature	Local		Civil society
21	Groninger Landschap	Landscape, nature	Provincial		Civil society
22	Vogelbescherming WetlandWacht	Nature	Local		Civil society

Attachment 7 – Actor table 'De Burd'

Nr.	Name (*interviewee*)	Stake	Scale	Governance involvement	Actor type
1	It Fryske Gea *Dhr. A. Huitema*	Nature	Provincial	Adm. board	Civil society
2	Wetterskip Fryslân *Dhr. K. Bartlema*	Water management	Provincial	Adm. board	Governmental
3	Provincie Fryslân	General	Provincial	Adm. board	Governmental
4	Gemeente Leeuwarden (before: Boarnsterhim) *Dhr. P. Jager*	General	Municipal	Adm. board	Governmental
5	Kadaster	Administrative	National	Adm. board	Governmental
6	DLG *Dhr. E. Lourens; Dhr. T. Loonstra*	Administrative	Provincial	Adm. board	Governmental
7	Users, farmers and renters *Dhr. H. de Boer*	General, agriculture	Local		Civil society
8	Molenstichting	Cultural history & landscape	Local		Civil society
9	Utility companies	Other	Regional, national		Market
10	Community organization recreationists	Recreation	Local		Civil society
11	Stichting Behoud Fries Cultuurlandschap Mid-Fryslân	Cultural history & landscape			Civil society
12	Fûgelwacht	Nature	Local		Civil society
13	Watersportvereniging	Recreation	Local		Civil society
14	Marrekrite	Recreation	Municipal, provincial	Adm. board	Governmental
15	LTO	Agriculture	Regional	Adm. board	Market