

Cows and regulations

– A qualitative study on semi-natural
pastures in Kronoberg county

Kor och regler

– *En kvalitativ studie om naturbetesmarker i Kronobergs län*

Sanna Gustafsson



Master's thesis • 30 credits

Department of Urban and Rural Development
Agriculture Programme – Rural Development
Uppsala 2018

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Credits: 30 credits

Level: Second cycle, A2E

Course title: Master thesis in Rural Development and Natural Resource
Management

Course code: EX0777

Programme: Agriculture Programme – Rural Development

Place of publication: Uppsala

Year of publication: 2018

Cover picture: Cows meet regulations in Odensjö, Småland.
Photographer: Sanna Gustafsson

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Online publication: <https://stud.epsilon.slu.se>

Keywords: Semi-natural pasture, landscape, actor-network, county administrative board, grazer.

Abstract

Semi-natural pasture is a dwindling type of agricultural landscape in Sweden. This is a qualitative study aiming to investigate the work around semi-natural pastures in the county Kronoberg in the south of Sweden. The thesis has an actor's perspective and focuses on driving forces in the work with semi-natural pastures. The material is collected through semi-structured interviews with farmers and CAB officials, and then analysed with inspiration from Latour's actor-network theory and additional concepts to highlight certain aspects from the fieldwork. Conclusions are drawn around the lack of economic sustainability which lead to a decreasing number of farmers, who are essential actors in the maintaining of semi-natural pastures.

Keywords: Semi-natural pasture, landscape, actor-network, county administrative board, grazer.

Sammanfattning

Naturbetesmarker är en minskande typ av jordbruksmark i Sverige. Det här är en kvalitativ studie som syftar till att undersöka arbetet kring naturbetesmarker i Kronobergs län i södra Sverige. Uppsatsen har ett aktörsperspektiv och fokuserar på drivkrafter i arbetet med naturbetesmarker. Materialet är samlat genom semi-strukturerade intervjuer med lantbrukare och länsstyrelsetjänstemän och har analyserats med inspiration från Latours aktör-nätverksteori samt andra begrepp för att belysa vissa aspekter funna under fältarbetet. Slutsatser har dragits kring bristen på ekonomisk hållbarhet vilket leder till en minskning av lantbrukare, vilka är essentiella aktörer i upprätthållandet av naturbetesmarker.

Nyckelord: Naturbetesmark, landskap, aktör-nätverksteori, länsstyrelse, betesdjur.

Table of contents

1	Introduction	5
1.1	Background	6
1.1.1	Kronoberg county	6
1.1.2	Semi-natural pastures	8
1.2	Aim/purpose	9
2	Methods and theory	10
2.1	Methods	10
2.2	Actor-network theory	12
2.3	Other concepts	13
3	An actor-network in semi-natural pastures in Kronoberg	15
4	The county administrative board in the actor-network	16
4.1	National environmental objectives	16
4.2	The rural development programme	17
4.3	“A varied agricultural landscape” at CAB Kronoberg	19
4.4	The CAB in the actor-network	21
4.5	The CAB officials in the actor-network	23
4.6	Extension service in the actor-network	25
4.7	Biodiversity	28
4.8	The postal service in the actor-network	29
5	Farmers in the actor-network	30
5.1	Small scale farmers	30
5.2	Grazing animals in the actor-network	33
5.3	The landscape in the actor-network	34
5.4	Neighbours in the actor-network	35
5.5	Financial support in the actor-network	36
6	History and earlier generations in the actor-network	38
6.1	History	38
6.2	Earlier generations	39
7	The actor-network of semi-natural pastures in Kronoberg	43
7.1	The farmers and the CAB	43

7.2	The power of the CAB and farmers	45
7.3	Restoration of semi-natural pastures	48
7.4	Landscape and biodiversity	50
8	Concluding thoughts	51
	References	53

1 Introduction

Semi-natural pastures and open landscapes are deeply rooted phenomena in Sweden. There are popular songs about how we enjoy them (“jag trivs bäst i öppna landskap”¹), their flora (“gullviva, mandelblom, kattfot och blå viol”²) and they are the image of Swedish rural summer. Historically there were cows and other animals on every farm in Sweden, as the core of the Swedish agriculture and countryside. The animals and the semi-natural pastures have a strong connection of being dependent on each other. Most of the county Kronoberg in Småland consists of forests, with small open spaces where grass can grow and agriculture be performed. Life here has been hard, people have struggled with the stone filled land and small outcomes of the hard work. Many of the, often small, farms were abandoned for other livelihoods during the 20th century; when the people and animals were gone, the forest grew and the agricultural environment disappeared together with its values (Flygare & Isacson 2003).

I have chosen to write about semi-natural pastures for the County Administrative Board in Kronoberg (the CAB)³. When I first started to think about my topic I decided to set my interests for the agricultural landscape and history aside, since that is what I dedicated my bachelor thesis to, and thought I should do something else this time. I contacted the CAB to get a topic from the current rural development sector, and they propositioned me the topic of semi-natural pastures, which I felt would be interesting. During the fieldwork it turned out to be impossible to leave out the landscape and its history leading to where we are now, to fully understand the semi-natural pastures and the actors around them.

“A varied agricultural landscape” is a competence development programme within the rural development programme as a way to reach the environmental objective “a varied agricultural landscape”. The aim with the environmental objective is to increase agricultural actors’ knowledge of the landscape and its natural

¹ Ulf Lundell 1982

² Evert Taube 1941

³ Länsstyrelsen i Kronobergs län.

and cultural values and how it should be conserved (CAB n.d.a). Within the programme the CAB offers free counselling for farmers and landowners on how to care and restore semi-natural pastures to maintain and increase biodiversity.

My interest in this particular region of Sweden is partly due to my roots. I grew up in a neighbouring county, but my parents and most of my relatives are all born in different parts of Kronoberg. I have spent plenty of time in Kronoberg, and since I plan to move to the county after my graduation this thesis felt like a good opportunity to get to know the area even better.

1.1 Background

1.1.1 Kronoberg county

The county of Kronoberg is situated in the region Småland in the south of Sweden. It is an inland county dominated by forest and lakes, with most of its arable land found in the central parts in areas with large lakes. In the rest of the county small areas of arable land are scattered in the forests all over the county (CAB n.d.b). The population is distributed in similar ways with the small dots representing cities, towns and villages spread all over leaving the map “looking like it has measles” (CAB official B).

The agriculture is dominated by cattle, with both dairy and meat production, which offers room for semi-natural pastures (CAB n.d.b). The production is intensive with more animals in the central parts and extensive and declining in the more forest dominated outskirts of the county (CAB 2018b). Many semi-natural pastures in the area accommodate a rich biodiversity and many cultural traces. Even though the CAB of Kronoberg has taken actions to conserve the semi-natural pastures, the use is declining and thus also their existence (CAB official B).



Figure 1: Kronoberg's location in Sweden. Sverigekartan. © Lantmäteriet 2018.

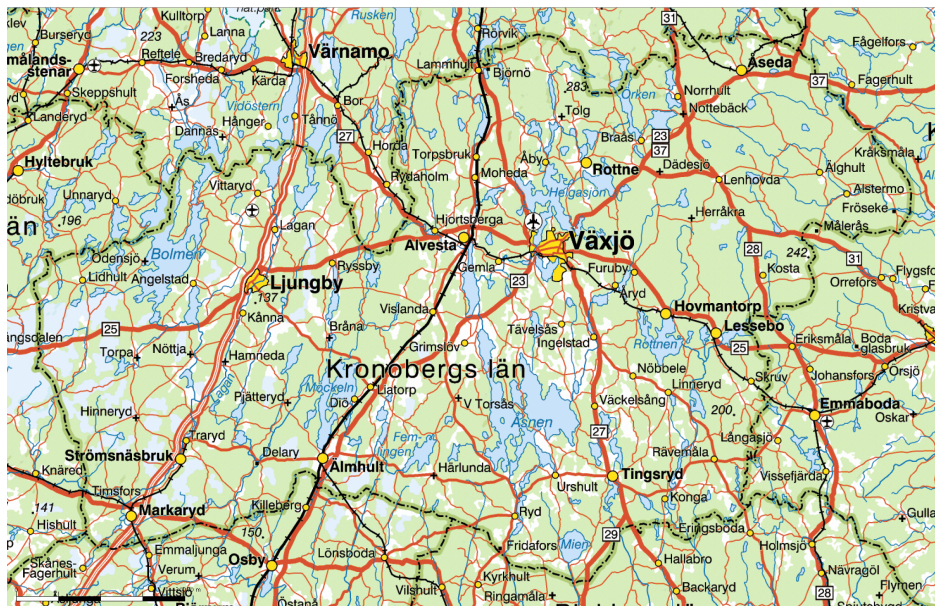


Figure 2: Kronoberg county. Topografiska kartan. © Lantmäteriet 2018

1.1.2 Semi-natural pastures

Semi-natural pastures are defined by the grazing animals and the lack of interventions to increase production as e.g. cultivation, fertilizing and drainage. Since there is no input of fertilizer apart from the manure from grazing animals, semi-natural pastures are poor in nutrients. The traditional way to manage semi-natural pastures is to release the animals early in spring and keep them out late in autumn, to have a high grazing pressure and to let two or more animal species graze on the same land. This was the best way to use the semi-natural pastures, use for feed as long as possible during the season, and reserve the valuable manure for the crop producing arable lands (SBA 1994).

There were approximately 2 million hectares of semi-natural pastureland in Sweden in 1850, not counting forest pastures. The agricultural rationalization led to a decrease to approximately 300 000 ha in 1994. An abandoned pasture will quickly be covered in high grass and shrubs, and nutrition and taste for the animals will decline (SBA 1994).

Semi-natural pastures have a long history and cultural traces are common, such as clearance cairns⁴, stone fences, pollards⁵ and ancient fields. The long continuity also shows in specialized animals and plants, dependent on the special environment. Semi-natural pastures in the agricultural landscape have one of the highest biodiversity rates in Sweden. The flora and fauna are adapted to the low nutrient levels. Semi-natural pastures can have very different characteristics, but common is the, at least partially, open space and the need of grazing (SBA 1994).

The aim of the semi-natural pastures has not changed during the centuries; they should offer as high and resilient production as possible. Farmers need to work to create and maintain a productive and sustainable sward⁶, to produce a tasty and nutritious feed evenly distributed over the season. It is done through traditional care and there is thus no conflict between animal production and biodiversity conservation. Important to know is that semi-natural pastures are not stable ecosystems, but requires continuous disturbance, that is, continuous use every year (SBA 1994).

⁴ Odlingrösen.

⁵ Hamlade träd.

⁶ Grässvål.

1.2 Aim/purpose

Based on the special characteristics of semi-natural pastures and their position in agriculture today, this thesis aims to investigate the actor-network around semi-natural pastures with Kronoberg as a local example. Focus lies on the involved actors and their motivations to work with the semi-natural pastures.

2 Methods and theory

2.1 Methods

This is a qualitative study where various methods were used to create a deeper understanding of actors' driving forces in their work with semi-natural pastures. The work has been ethnographic, which means I started to collect material in the field and then theorized around the material (Kaijser & Öhlander 2011). The material was collected through semi-structured interviews, qualitative observations, qualitative visual material and qualitative documents (Creswell 2014).

Semi-structured interviews have a structure similar to casual conversations, but all interviews cover the same certain topic. (Kvale & Brinkmann 2014). The questions are open-ended and asked in order to get the informants to talk freely in their own words, and not just give short answers and facts (Creswell 2014).

I conducted eight semi-structured interviews with nine informants during January and February 2018. Seven of the interviews were done face-to-face with the informants, and one supplementary interview was conducted over the phone.

Three of the informants are officials at the CAB in Kronoberg; two of them work with administration around a varied agricultural landscape and they were interviewed together at their workplace. The third official works mainly with agri-environmental payments in connection to semi-natural pastures, and was interviewed in a phone interview to get supplementary information. These informants are referred to as "CAB official a, b and c".

I also interviewed an external counsellor who performs extension service in Kronoberg for the CAB. The interview was conducted in the counsellor's home in a rural part of Kronoberg. In the thesis referred to as "the counsellor".

The three officials helped me to find informants among farmers, who were my main source for material. The officials used their networks and personal knowledge to create a list of 14 farmers who had got extension service for semi-

natural pastures during 2017, and who were thought to be communicative and interested in participating in the project. I randomly chose five of them, and interviewed them at their farms.

The five interviewed farmers were geographically spread in five different municipalities, evenly distributed between males and females and were between 35-70 years old. The spread turned out to be good even though the selection was random. They all had animals; cattle, sheep and/or horses. They were situated in areas which are more or less dominated by forest. Four out of five had inherited the farm from family and one had bought the farm off the open market. All informants owned land but were also, or had been, tenants. Two interviews took place on snow-free ground and three with a large amount of snow. However, it was possible to see quite a lot of a semi-natural pasture's structure with trees and bushes, even though the growing period of the year would have offered better conditions. The farmers wanted to be anonymous in order to participate in the interviews. They depend on financial support, which the CAB is in charge of, and therefore did not want to openly speak their minds about matters concerning themselves and the CAB.

The eight interviews took 1-2 hours each and were recorded and then transcribed and thematically organized. The informants were more or less talkative, which means some are cited more than others. All the interviews were conducted in Swedish, which means that the quotes are translated to English by me. I have sometimes felt the need to remove repeated parts or add pronouns or connectives to ease the reading and understanding. However, I have strived to keep the character and the content in the quotes authentic.

I performed qualitative observations in connection to the interviews. For the interviews with the farmers I asked them to show me their semi-natural pastures. They were all eager to show me and to describe their work and thoughts. While we walked around the pastures I observed and asked about the landscape, and after the interviews I could in most cases drive an extra round on my own to take notes and pictures. The farmers often pointed out connections between their work, the animals, the landscape features and the semi-natural pastures' characteristics. The observations were open-ended and worked well as complementary to the interviews (Creswell 2014).

Besides the interviews with the CAB officials I used a number of qualitative documents from different authorities to get a full picture of the CAB's side of the matter. The qualitative documents consist of e.g. national and regional rural development programmes, the regional environmental objectives plan and information

pamphlets from the CAB and the Swedish board of agriculture (the SBA)⁷ (Creswell 2014).

The CAB sends out regular e-mails with information about available possibilities for farmers to participate in courses or other offered services. The CAB and the SBA provide a lot of information on their webpages. Those types of data collection are called qualitative visual material (Creswell 2014).

Normally I do not drink coffee. However, as it is a ritual especially in the rural parts of Sweden, I felt the need to accept the informants' offers in order not to interrupt the interview situations, and drank coffee anyway.

2.2 Actor-network theory

The farmers' stories about how the landscape was linked to their own work, the animals' work and the specific features of the flora and fauna led me to theorize upon my material from a network point of view. Actor-network theory (ANT) explores how networks are formed and maintained in order to achieve its aims. Despite its name, ANT is regarded as both theoretical and methodological and sees everything as part of dynamic networks. Everything can be both a network and an actor, depending on the observer's perspective. A network is made up from a number of actors, which each are formed by a number of smaller actors. Thus every actor is a network of actors. There is nothing outside the network, no hidden actors or structures, everything that affects the network and relate to each other; humans, objects and other factors, should be seen as actors acting on the same level (Latour 2005).

In ANT both human and non-human actors are social and treated as equals. They belong in the same networks where they affect each other in different ways (Latour 2005). To illustrate an actor-network with its diverse human and non-human actors Latour (2005:32) uses an example; "no flock of sheep without a shepherd and his dog, walking stick, vaccination certificates and mountain of paperwork to get European Union (EU) subsidies." This applies very well to the actor-network around semi-natural pastures in Kronoberg. Thus the motivation for relying on ANT as a theoretical framework is its usefulness in exploring the complex system which forms the semi-natural pastures.

I have chosen to use certain key concepts from ANT as theoretical concepts in this thesis:

Actors who act in the same actor-network have relations to each other of different kinds. **Intermediaries** do not change the meaning of things and not make

⁷ Statens jordbruksverk.

any difference, which means they **transport** meaning without transformation. **Mediators** on the other hand make others do unexpected things. They are actors that change the meaning of things; they perform **translations** with unpredictable outputs (Latour 2005). Translations suppose actors have the ability to change concepts and meanings, but do not necessarily have to be intentional. Actors have to engage to keep concepts moving, and between intermediaries they will be transported and the same, while between mediators they will change into unique concepts. Focus should therefore not be on the initiator of the concept, but on the mediator who passed it on (Latour 1998). Even actors, which can be things, humans, phenomena, that do not appear to be social at first, may make other actors act, which make them relevant in the actor-network. Actors that do not seem relevant to each other at first do have connections within networks (Latour 2005).

“When you simply have power – in potentia – nothing happens and you are powerless; when you exert power – in actu – others are performing the action and not you...[power] as an effect, but never as a cause” (Latour 1986:265). **Power** is something an actor can possess only if other actors act and perform translations in line with the actors’ will. If they choose to do it in other ways, the other actor is left powerless.

A dominant, powerful actor builds a **black box** of other actors. As actors through their translations assign power to a more dominant actor they become part of the actor’s black box, which for other actors makes them appear as part of the dominant actor. An actor hides things from other actors in the black box, which become apparent when the black box is punctured and breaks down. This is relevant for the understanding of the relation between the CAB and its officials (Latour 2005).

2.3 Other concepts

Frequently appearing topics during the interviews, in particular with the farmers, were family, heritages and local history. The following concepts helped highlight certain recurrent themes within the frames of the actor-networks related to the mentioned topics:

Nostalgia, is the longing for the lost past of a person’s life, and used in reasoning and sometimes decision making today, even though it is often filled with emotions and memories and lacks authenticity. It is thus frequently a romanticised illusion, but can however also work well as a driving force (Johannisson 2001).

Nostalgia relates to **narratives**, which use relevant parts of history to create retrospective meaning, which is only relevant at the present time, together with

elements from the present and the future in mind. Therefore narratives can contribute to create cultural identities (Ricoeur 1986).

A **horizon of understanding** marks the limit of a person's knowledge and understanding. When a person is faced with new knowledge, ideas or other persons, understanding of new things can be acquired, and thus expands the person's horizon of understanding (Ödman 2007).

To understand the CAB's significant status as an authority related to the work with the semi-natural pastures two more concepts were used:

Governments and authorities are based on **expertise** with scientific knowledge, as it is acquired from universities and part of a systematized knowledge and therefore easier to define. Experience based knowledge from years of work is harder to define as it is not part of a standardized system (Foucault et al. 1988).

Public authorities create models with inspiration from the private sector in order to increase quality and lower costs, a concept called "**new public management**" (NPM) (Norén Bretzer 2014).

3 An actor-network in semi-natural pastures in Kronoberg

This thesis studies the work around semi-natural pastures in Kronoberg with inspiration from ANT. Semi-natural pastures do not exist without continuous use. They need to be grazed by animals every year, which requires farmers to care for the animals. If the use comes to an end the semi-natural pastures will start to dissolve, as forest will take over the landscape. The CAB has aims for an increase in semi-natural pastures in the county, and compensate the farmers' work financially.

The actors forming an actor-network connected to the semi-natural pastures are many and diverse. Through interviews with farmers, CAB officials and a counsellor, observations made around the county and studies of documents related to semi-natural pastures and the CAB's work I have identified a number of actors that, at this certain point in time, make up the actor-network of semi-natural pastures in Kronoberg;

The CAB with its chain of actors: the CAB in Kronoberg, the CAB officials, the external counsellor, the rural development programmes, the environmental objective, regulations, the government, EU, a varied agricultural landscape, the financial support, the SBA, biodiversity and the postal service.

The farmers and their chain of actors: the landscape, the grazing animals, the farmers' neighbours, earlier generations of farmers, nostalgia, small-scale farmers and financial support.

By their relations to semi-natural pastures and to each other, the actors are part of the network. They have different motivations and driving forces in their associations creating semi-natural pastures, which also change with time as new translations occur continuously. The actor-network is dynamic and its constellation will change over time.

4 The county administrative board in the actor-network

The CAB of Kronoberg is the Swedish government's regional authority in Kronoberg. The national environmental objectives, the rural development programme, the competence development area are all reasons as to why the CAB work with semi-natural pastures and also contribute to the CAB's position in the actor-network.

4.1 National environmental objectives

Sweden has one overall goal for the environmental politics; the generation goal. It "defines the direction of the changes in society that need to occur within one generation if the country's environmental quality objectives are to be achieved" (SEPA 2016). Under the generation goal are 16 national environmental objectives, which describe the condition the environmental work should aim for to create sustainability in the Swedish environment. One of them is "a varied agricultural landscape", which the Swedish government defines as "the value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are conserved and strengthened" (SEPA 2016). The Swedish people elect the government and that fact contributes to the legitimacy of the tax money used to reach its goals within different areas such as the agriculture in Kronoberg.

The government sets the national environmental objectives and those relevant for the county Kronoberg are translated into regional environmental objectives and adapted to the regional conditions (CAB 2014). "A varied agricultural landscape" covers the semi-natural pastures and as an actor in the actor-network it affects the CAB's translations of the work with semi-natural pastures.

However, the semi-natural pastures' existence is not obvious for everyone. According to an official at the CAB the semi-natural pastures are criticized since they

in themselves do not generate any money, and therefore it is questioned whether tax money should finance their existence. However, the CAB gives the semi-natural pastures meaning through the environmental objective.

“There are people in society who question whether we should continue to put tax money on semi-natural pastures, since they are not economically sustainable themselves. But then we have the environmental objectives as an answer to that. The objectives are decided by the parliament and that should be reason enough, but also that we are not doing very well in terms of fulfilling the biodiversity aim, and that fact should really motivate the money. At least most people think so” (CAB official A).

Even if the CAB has an objective to work towards, and there is money spent on it, it does not change the development. The CAB itself does not do any practical work to directly increase the semi-natural pastures; that work has to be performed by others. If they do not have any interest in doing so, the CAB’s objective and money will not give any effect, and the CAB will be powerless. The farmers and their chain of actors have the possibility to increase the amount of semi-natural pastures, but also to not do it. They are the actors in charge of the work with semi-natural pastures, contrary to the CAB. Without the farmers’ will to work, the environmental objective and the CAB are powerless.

“There have been regional environmental objectives for years about increasing semi-natural pastures, but the truth is that since 2002-something they have decreased with 11%. Kronoberg has one of the worst developments in the whole country” (CAB official B).

4.2 The rural development programme

The SBA translates EU’s growth strategy into a national rural development programme. It consists of various forms of support to encourage development of the rural areas in Sweden during 2014-2020, with focus on environment, sustainable development and innovation (SBA 2018b). The Swedish landscape acts as a mediator in the SBA’s translation process, as the rural development programme is adapted to the Swedish conditions. Sweden and EU through the European Agricultural Fund finance the rural development programme for Rural Development. (SBA 2018a).

The national environmental objective “a varied agricultural landscape”, is an important actor in the national rural development programme as it is strongly con-

nected to agriculture and showed negative results in the beginning of the rural development programme period. The landscape and the grazing animals are mediating actors in the actor-network since they affect the CAB and the farmers' translations. The ways in which the landscape responds to measures will compel the other actors to act in certain ways. In order to understand the work with "a varied agricultural landscape", it is thus necessary to consider even the landscape and the grazing animals themselves as active actors in terms of vegetation and animal wildlife and not simply as a passive surface reflecting what others do. The long tradition of agriculture has created the biodiversity and needs to be maintained in order to conserve it. Extensive agriculture with grazing animals is declining which leads to afforestation and loss of biodiversity in semi-natural pastures. This is especially true for areas in Sweden with poor natural conditions for agriculture (SBA 2018b).

Every authority working with the rural development programme has its own plan of action with locally adapted priorities (SBA 2018a). One of the authorities is the CAB in Kronoberg. The regional rural development programme is an action plan where the national rural development programme is translated by the CAB to work "to contribute to develop a modern and attractive rural area with profitable and competitive businesses and active farmers providing us with an open landscape with grazing animals" (CAB 2018b). The landscape is a mediating actor here also, as adaptations are made according to the conditions in Kronoberg.

Agriculture created a varied landscape during history. The government and the CAB worked for rationalization of the agriculture during the second half of the 20th century, which led to a decline in biodiversity, and loss of variation in the landscape. Now the CAB is aiming to increase the values again with the programmes, and through financial support get farmers to work in ways that the CAB encouraged to abandon until a few decades ago. The values in semi-natural pastures are created through long-term maintenance, but are quickly lost if the grazing stops.

When semi-natural pastures and biodiversity decline, the landscape as an actor directly affects the CAB and the CAB's work. The CAB is a dominant actor in the network and has set the regional goal to affect the landscape, but cannot achieve the goals themselves, without the farmers. Instead the CAB is performing actions to make farmers do the work through creation of a chain of actors; the rural development programme, the environmental objective, the regulations, the financial support, the landscape, the farmers and the grazing animals. As farmers to a large extent are dependent on financial support it can appear as if the CAB's way is the only way. Though the farmers are not obligated, but rewarded with financial support if they perform certain actions defined by the CAB in the action plan. The CAB can seem to have the power in their hands, but are unable to reach the goal or

exercise their power without the farmers. The actors in the chain are mediators, which mean translations are made along the way. The vagueness in the CAB's goal leaves space open for interpretation, e.g. around what a modern and attractive rural area means. That opens up for governance, for the actors in the landscape to work in other ways, which could still be regarded as within the frames of the goal, but not in the way the CAB intended.

4.3 “A varied agricultural landscape” at CAB Kronoberg

The national environmental objectives are adapted to regional conditions and Kronoberg has 45 regional objectives to work towards, in addition to the national (CAB 2018a). One of the regional environmental objectives is “a varied agricultural landscape”. A few of the points within the objective relate to semi-natural pastures. Farmland, fields and pastures should be protected and consist of at least 68 000 ha in year 2020. Fields and natural pastures should be preserved and not decrease in area. In 2020 at least 5000 ha should be cared for and supported financially (CAB 2014).

Support for managing semi-natural pastures, mown meadows and their restoration are part of the agri-environmental payments and are financed through the rural development programme by the EU and the Swedish state together and part of the rural development programme to reach the environmental objective “a varied agricultural landscape” (CAB 2018a). This is compensation to the farmer for working with the semi-natural pastures and mown meadows.

“A varied agricultural landscape” is also a competence development area in the rural development programme to support the work towards the environmental objective in Kronoberg (CAB n.d.a). The SBA finances the competence development and officials at the CAB create a project plan with guidelines for the use of the money in the region, which is then approved by County Director⁸. The competence development area is divided into three parts: competence development, information and demonstration, and extension service. Extension service is the largest one, and in focus in this thesis. The activities within the competence development are performed by both the CAB officials and external actors (CAB official B). The aim with the competence development is to increase knowledge about the agricultural landscape's biological and cultural-historical values and how they are best conserved (CAB n.d.a).

Some of the informants express a pride when they talk about what values they create together with their animals. The continuity of plants typical for semi-natural pastures give a receipt on the work; that the semi-natural pastures are well cared

⁸ Länsrådet.

for and in the same way as farmers before. However, the farmers rather connected it to their heritage and animals, or the need for the financial support, than biodiversity or the CAB's goals. The CAB translates the existence of unusual plants into an indicator of a working system. The farmers also raise the issue of semi-natural pastures as something very long term and the problems caused when the regulations are changing not just with EU's seven year periods, but also during the periods. The biodiversity needs a long continuity to fully develop and be sustainable.

"I do not think the authorities know more about biodiversity than us farmers, with the experience we have. What CAB official spends as much time outside as we do? We have the culture, history and tradition on our side, and the knowledge of the land. If I always listened (to the CAB), the biodiversity would decline in my semi-natural pastures. I know my farm best, even though I do not know the plants in Latin" (Farmer 4).

"I have learned about biodiversity and what works, through working with it and thinking about it since I was a child participating in the work with my grandfather. I have always had an interest in biodiversity. There are many orchids and incredibly old oaks here and even though I am just a tenant, I would be sad if they disappeared. The downside is that land here is not very rational, it takes a lot of work and it pays in unusual plants, not in money" (Farmer 1).

"My biodiversity is not the same as the CAB's. I mean, now there are grazing animals here again, after 60 years. That should add to the biodiversity, no? I do not care for bugs and stuff, that is maybe a weakness in me, but I really do not" (Farmer 3).

With the aim to increase the knowledge around matters connected to semi-natural pastures, it appears as if the reason for the decline in values in the landscape is a lack of knowledge among the farmers. The CAB is an authority based on expertise in certain areas. Scientific knowledge acquired from a university is the fundament of expertise as it is part of a defined system, and therefore used by governments to secure their own objectivity and legitimacy (Foucault et al. 1988). Knowledge acquired from years of experience is harder to define, and it can therefore be harder for the CAB to detect the farmers' knowledge of the landscape and its values since it often comes from a lifetime of work with agriculture, and also with traditions from earlier generations.

Two of the interviewed farmers thought it could be interesting to know more about the plants and other values the CAB looks for in their judgements, but for the reason to better know what to expect from an inspection from the CAB. None

of them regarded their knowledge as not being enough for their work and said they would not change the way they work since it obviously has worked for generations.

4.4 The CAB in the actor-network

Until the first half of the 20th century the semi-natural pastures were not considered a political issue and therefore not an issue for the CAB, but merely a resource for the farmers (Flygare & Isacson 2003). As the semi-natural pasture actor-network started to change, the CAB got involved. In the 1960's the semi-natural pastures got a new meaning as attention was drawn to the relations between the landscape with the semi-natural pastures, the agriculture and the values connected to it. The government and the CAB recognised this and translated the semi-natural pastures as a room for the values. The CAB's translation made them part of the actor-network together with the landscape. Though it was considered a question for nature conservation rather than agriculture by the left-winged government. After a government shift to a right-winged one in the 1970's the semi-natural pastures were again translated by the government and the CAB to become part of agriculture. The production of food did not generate enough maintaining of the semi-natural pastures and landscape values and therefore financial support to agriculture as a landscape producer was introduced, as it was regarded as the cheapest way to create additional values. In the 1990's the semi-natural pastures were regarded as connected to the organic production and small-scale farmers, and with the new concept biodiversity the meaning of semi-natural pastures for the government and the CAB's was again translated (Flygare 2004). Today semi-natural pastures have a given place in agriculture and the connection is no longer questioned even though the government is left-winged. The fact that it is part of "a varied agricultural landscape" can contribute to show how strong the connection to agriculture is.

The CAB is a strong actor in the actor-network. Actors outside the CAB's network within the semi-natural pasture actor-network strongly associate the CAB with a number of other actors such as: the SBA, the rural development programmes, the environmental objective, regulations, a varied agricultural landscape, the financial support, the external counsellor, the government and the CAB officials. These actors are part in a chain created by the CAB, where they are so strongly connected to each other that they to other actors appear to be part of the CAB.

Networks are in a constantly changing mode as the actors' relations are being made and re-made. The rural development programmes are created for seven-year

periods, but are adjusted throughout the whole period, re-translated by the CAB and the SBA (CAB 2018b). That fact makes the rural development programme a mediator, as the rules and therefore the outcome of the programme are unpredictable. The translations affect the other actors around semi-natural pastures, which was brought up by two informants who saw it as a possible threat to their businesses.

“I guess the CAB does what it can. We are dependent on the support to keep this going. I wish they would not change things so often, it makes me afraid of losing the money” (Farmer 2).

“To me the CAB is very unpredictable. I understand that changes in the regulations come from above, but still. Someone behind a desk creates a new rule and has no clue how it will affect the landscape in the long run” (Farmer 4).

The CAB's power is expressed through their translations, which affect other actors as e.g. the farmers and the landscape. However the CAB have no possibility to reach their own goals by themselves, as they do not work hands on in the landscape. Instead their power is shown when other actors follow their lead and work towards the CAB's goals. The work towards the goals is mainly done by farmers who do it in order to get financial support. The financial support could also be seen as a mediator, which translates the farmers' goals with their work. The support comes with aims translated by the EU, the national and regional rural development programmes and the CAB. If the farmers want to get financial support the work needs to be adapted to the rules assigned by the CAB in order to get financial support. The farmers do not do it for the CAB's goals, but for the money. The landscape accommodates dynamic processes and small changes in the rural development programme or in regulations could have large effects on the landscape and its processes.

Farmer 4 showed a semi-natural pasture, which used to have many trees. In the last programme period (2007-2014) the number of trees per hectare in a semi-natural pastures was regulated and the informant's neighbour had to remove plenty of trees to get a piece of land approved as a semi-natural pasture. Though without the trees the area got very wet and eventually the grass flora was replaced with a swamp-like environment, which the CAB could not approve as semi-natural pasture. Effects like this were unexpected for the CAB and the landscape acted to contribute to change this part of the programme for the current time period. The CAB's view on trees in semi-natural pastures changed and there is now fixed number of trees per hectare. In this case the landscape also affected the farmer as this semi-natural pasture was lost and had to be managed differently. According to

Farmer 4 the trees would not have been cut down if the farmer had not applied for financial support and therefore got instructed by the CAB to do it. That makes the financial support and the landscape part of the actor-network as they both affected other actors and their translations.

The CAB is represented by a number of officials. They are all acting within the actor-network towards CAB's aims and represent the CAB in the county in a united way. As an authority the CAB wants to be viewed as a predictable entity and not as a group of individual actors. A black box contains matters an actor wants to keep hidden for other actors in the actor-network. The CAB officials contribute to form the CAB actor but can sometimes act outside the perceived frames of the CAB. Some of the farmer informants identified the individual officials and claimed differences in their work. In that way the CAB's black box is punctured in the actor-network, since a difference in acting among the CAB officials is shown, something the CAB do not wish to happen (Latour 2005).

4.5 The CAB officials in the actor-network

During the interviews I experienced bitterness towards the CAB as an institution among the farmers, and at the same time an appreciation for helpful counselors and officials, but not necessarily recognition of the paradox it represented. The interviewed farmers spoke both about the CAB as an institution and the officials as individuals during the interviews. This is an example of a puncture of the CAB's black box, as the CAB officials show as individual mediators within the actor-network, and not just representatives of the CAB institution. The farmers are in a position where they can choose to follow advices and guidelines if they want to. The fact that they detect a distinction between the CAB and the CAB officials, as well as between the different CAB officials, could have effect on the power distribution within the actor-network. Power is expressed in translations, and an actor's power can only be expressed in other actors' translations. If a farmer tends to perform translations according to the advice of a certain official rather than to the CAB, the individual official becomes more powerful than the CAB institution. In this actor-network the CAB and its chain of actors have to get their power translated mainly by the farmers who performs the practical work, which give the farmers power to affect the actor-network.

One informant talked about the CAB as a problem and opponent to their work in the beginning of the interview but then explained how they had got to know a few of the officials who were very helpful and an asset to the company. Another informant was very pleased with the work and advice of individual representatives

from the CAB, but at the same time referred to the CAB as slow working and ignorant of the farmers. A third informant said:

“I do not really have anything against the persons at the CAB, the problems are in the system. It really depends on whom you meet and how that person interprets the rules. I can see the difference in their minds” (Farmer 3).

The CAB officials are human and humans can be unpredictable, even in the presumably predictable system the CAB represents. They work according to regulations drawn up by the government, but do sometimes have space in their decision making and judgement, which can affect processes. The unpredictability makes them mediators within the CAB mediator, as they make others perform unexpected actions. Here the role of the landscape as an actor becomes evident. The dynamic landscape mediates its constant changes and sometimes unexpected results into effects for both the CAB officials and the farmers. As the landscape and the semi-natural pastures are dynamic and can leave room for interpretation, the predictability of the CAB officials can sometimes be jeopardized.

“We prefer if there is more than one person involved in each case with semi-natural pastures. The first person could have made a misjudgement, or the area did not develop as expected, and therefore it is better if a different official rates the area the second time” (CAB official C).

“Problems are sometimes caused by the fact that counsellors who give extension in e.g. “a varied agricultural landscape” are biologists with nature conservation, landscape protection and biodiversity close to the heart, while the persons in charge of inspections are strictly regulation oriented. It is not black or white, there are different ways to do it in terms of actions, aims and what to benefit. Clashes are sometimes unavoidable, what is true in one place is not necessarily in another” (CAB official B).

The farmers have pointed out the unpredictability as problematic, even if they strictly follow an action plan designed by a CAB official, it still does not guarantee approval from the CAB in the end. The meaning is different for the CAB officials and the farmers, as the CAB officials strive to make the correct decision in the end, while the farmers want to be sure to be approved for financial support and not risk losing it.

“At the first meeting with the CAB here they approved our application due to high tree values. When we had followed the instructions in the plan a new person

came from the CAB to do an inspection, and told us it was wrong. We worked even more, and then the CAB came again, and still thought it was not enough. Then we got some counselling from another person. We agreed on most points, except that we should remove more trees. What about those tree values we began with? We got an extra year to finish, and I do not dare to say anything anymore, I just to do what they tell me. There is money in this for me, and they have all the power. We have done this before but with one person from the CAB during the whole process, that was so much better. Now I feel they interpret things differently and it makes it very hard for me” (Farmer 3).

4.6 Extension service in the actor-network

The CAB offers two kinds of extension service in the competence development area “a varied agricultural landscape”; one focused on semi-natural pastures in general with advice on management and care, another with focus on restoration of semi-natural pastures. The extension service is free and the service can be used at any point in the process of a semi-natural pasture or a restoration. The CAB of Kronoberg does not have employed counsellors for extension service within semi-natural pastures, but have instead through procurement hired an external company to perform the service. When the current program period started in 2014, it was decided by the CAB that extension services should not be performed internally, but rather by companies from the open market. The procurement process is needed to secure the legitimacy of the work, to assure that an external company can provide the CAB’s services. In the case with the extension service in “a varied agricultural landscape” the CAB just got one offer on the procurement: from a person who earlier was hired at the CAB to perform the same kind of extension service. When the procurement for the service came out the person started an own company to do the same work, but externally. The question is political; the CAB performs the national politics in the region. That means it will to some extent reflect the political will. One question is whether the authorities should do what private companies could do. This is a case where the CAB in Kronoberg has decided to turn to the market (CAB official B). The phenomenon with public services run with models from the private sector is known as new public management (NPM). To let external actors bid on the job through procurement could lead to lower costs and higher quality of the work (Norén Bretzer 2014).

Very few are excluded from the extension service (CAB official A). Farmers with animals are the majority of the group, but also tenants or landowners who want to prepare the semi-natural pasture for a tenant. There are sometimes people who have recently bought a house with a belonging piece of land, who need help

with everything from management and animals to knowledge of support systems. There are sometimes active farms, but also abandoned land where someone wishes to start again and open up the landscape (Counsellor).

The current counselling company employs only one person, who used to work at the CAB with similar tasks before. The counsellor as well as the CAB officials work with the mediator landscape, which can sometimes make it tricky to give advice on semi-natural pastures since it is so dynamic. The counsellor claims experience has led to an ability to predict the result of actions on different types of land, which is very important in the work (Counsellor).

The SBA has produced guidelines for semi-natural pasture management and for restorations, which is distributed e.g. at extension service by the counsellor. The information is general to fit many different kinds of land. The counsellor tries to adapt the information to the individual farmer and land at each place. Even if the counsellor has a connection to the CAB, the counsellor's translation of the information may conflict with the CAB's goals. As the space for interpretation can be a problem for the CAB officials, an external counsellor do have even more space in their translation of the information. The procurement of the extension service stated that the aim with the extension service was set by the EU for the whole union, to restore, conserve and improve the biodiversity and the landscape's character. The work should also contribute to achieve the environmental objective. The aim should be fulfilled by an increase in farmers and other actors' knowledge of biological and cultural values in the landscape (CAB 2016a).

The counsellor is associated with the CAB since is pays for the extension, but since the counsellor works independently the freedom in the extension service to the farmers could be larger than the CAB's frames. The counsellor is just associated with the farmers during the extension service and does not participate in the inspections or follow-up of the semi-natural pastures, which can be problematic since no one is responsible for the effects of the advice to the farmer.

The counsellor has power in the same way as the CAB does. The aim with the extension service is to increase the biodiversity and to work with the environmental objective, and to do that the counsellor offers advice to farmers and other actors in the landscape. Though the extension in itself does not do anything direct for the biodiversity, but could inspire the actors directly working with the landscape, the farmers, to perform their work in ways beneficial for the biodiversity. Therefore the counsellor's power lies in the hands of the farmers. If they do not follow the advice, the counsellor's power is lost. Whether the farmers do or not can be linked to how the counsellor and the farmer got in touch with each other.

Sometimes the CAB works as a link. Farmers or landowners who have called the CAB to ask for advice can be recommended counselling. Many appreciate to

just be able to have a discussion around anything related to the semi-natural pastures, hands on advice, something the CAB officials cannot do as freely.

“We CAB officials just visits farmers who have applied for financial support, we can not go otherwise. The free counselling is very valuable, since it can happen at any stage, completely unrelated to applications and support” (CAB official C).

“We got extension as a preparation for a restoration application later this year. I heard that it was offered for free and thought it could be good. I let my common sense guide me in the work, I have not changed the way I think about the semi-natural pastures after the extension, but it is nice to hear that we are doing it right” (Farmer 2).

The CAB also recommends farmers extension e.g. related to restorations of semi-natural pastures. The counsellor can give practical advice on which trees to remove in order to be approved for support. Most of the farms are situated in forested areas, and farmers who do a lot of work in the forest themselves can have problems to adjust their thinking to the management of trees in semi-natural pastures.

“When I realized I would not manage the restoration on my own, the CAB told me to make an appointment for extension. It was really good and gave me valuable information to be able to finish my restoration” (Farmer 4).

“I got extension related to problems in my restoration. The counsellor and I had different opinions on what should be done; the outcome of actions taken is not obvious. Some things look good on paper but do not work in reality. But I did not say anything, I just want to get an approval from the CAB” (3).

Sometimes the counsellor has to search for customers who have not asked for extension themselves. Mostly they are found through the CAB's list of farmers who have applied for financial support connected to semi-natural pastures.

“I was called up by the counsellor and asked if I wanted some extension. The counsellor is a friend of a friend so I did it as a favour. It was nice but I did not change my management of the semi-natural pastures after that” (Farmer 1).

To sum up, four of the farmers were positive to the extension service they got, and one was negative. But in general the farmers consider themselves having sufficient knowledge to conserve the semi-natural pastures, and saw the extension

service as a way to confirm their ways of working related to the CAB's regulations. One farmer changed their work with the restoration, but not with the semi-natural pastures in general. Since the advices given do not change the way most farmers work, the counsellor's power is limited compared to the CAB's.

4.7 Biodiversity

Biodiversity is an actor in the actor-network translated differently by the CAB and by farmers. It is frequently used by the CAB while the farmers rather talk about the landscape, even though the same matters are discussed.

Depending on the values in the landscape, the biodiversity, in e.g. flora or cultural traces, the CAB offers different levels of financial support or investments in e.g. semi-natural pastures. If the values are considered high the CAB and the farmer can sign a contract for special care⁹, where certain actions from the farmer, in order to conserve e.g. certain flora or cultural heritages, will pay extra (CAB official C). The amount of support a farmer can get to manage a semi-natural pasture can define the future of the semi-natural pasture, since a high level of support can affect farmers' translations of their work.

Authorities often need a possibility to show results in clear numbers, and therefore measureable goals are set. Biodiversity is easy to measure through a species existence, number of species or number of individuals of each species in a certain area. The CAB performs inventories of the fields and semi-natural pastures in the county to detect biological and cultural values (CAB n.d.a). The regional environmental objective for "a varied agricultural landscape" is designed with measurable goals; number of hectares of certain types of land, e.g. semi-natural pasture, or a certain proportion of organic production until year 2020. Goals set to numbers or percentages are easy to evaluate (CAB 2014).

The CAB highly values oaks as important for biodiversity in semi-natural pastures. The oaks are important actors for the biodiversity as they accommodate a large number of other species during the different stages of its life (CAB n.d.c). They are also easy to detect, which means a semi-natural pasture with oaks can easily be assigned biodiversity.

"The CAB really values oaks in pastures. I think they are majestic too, but the last three years we have lost lambs after they have eaten acorns. A friend's horse also died. The CAB would not let us touch the oaks in order to get approval for pastures, but to me oaks should not be so frequent in pastures. This has led to a

⁹ Särskild skötsel.

lower grazing intensity in those paddocks, which is not good for the oaks anyway. If you ask me, I would just remove the misery of oaks” (Farmer 5).

In this case the oaks are causing problems for the farmer and the animals. The farmer cannot risk the animals’ lives, and in the long-term it could result in an abandoned semi-natural pasture. Without the grazing animals, the oaks with their biodiversity will be disfavoured, and other values connected to the semi-natural pasture will in a long-term perspective decline and disappear.

Semi-natural pastures with their biodiversity are located in the landscape and therefore part of it. They are affected by the surroundings and to fully grasp their diverse characters a wider perspective is needed (Lindborg et al. 2008). It is easier to aim actions towards single elements than to take the whole landscape with its dynamic processes into consideration. Actors from different fields; natural and cultural; the whole actor-network, meet in the landscape, which is why semi-natural pasture management should aim for the whole landscape and its processes to better reach sustainability (Saltzman 2001).

4.8 The postal service in the actor-network

The CAB has a magazine, “Landsbygd i Kronoberg”¹⁰ with 3 issues per year. It contains information about the CABs courses, meetings and other services they provide aimed at the rural areas, e.g. extension service for semi-natural pastures. They print a couple of thousand copies, send to the post service and ask the postmen in the rural areas to distribute them to farm households. Who actually gets it is beyond the CABs control (CAB official A & B). This makes the rural postmen actors in the network. Their translation of what a farm household is will affect whom the information reaches. The magazine also comes in an e-mail version, free for anyone to subscribe to on the CAB’s homepage. The officials think they will keep the physical issue a few more years. “We think that this target group contains many elderly people who appreciate a non digital channel, still” (CAB official A & B). Even though almost anyone who is interested can get extension service for semi-natural pastures, the information can be hard to find. The CAB officials mention the decline in semi-natural pastures, but there does not seem to be any discussion around the distribution of information.

¹⁰ Internally and humorously called “Liket”.

5 Farmers in the actor-network

The farmers are dominant actors in the actor-network of semi-natural pastures as other actors are closely associated with them: the landscape, the animals, their neighbours, the biodiversity, the earlier generations of farmers and the cultural heritages. In their work they also have to relate to the CAB and the connected actors.

It is well known that being a farmer often requires more of a person than other jobs (Nordström Källström 2008) and for the uninitiated it can seem strange to choose an occupation which takes over the whole life with hard work, full time duty and low pay. All interviewed farmers express their choice to be farmer as choice of lifestyle, rather than just a choice of occupation.

“I just try to manage the land as well as possible. There is always more to learn when one works with this. It is pleasant when the landscape is open, makes it more alive. This is our hobby but it requires so much work and time. We can almost never go anywhere. But for us it was never an option to not take over the farm” (Farmer 2).

“I want to live off my farm, it is a challenge and very exciting. That is my main driving force, to see if I can do it in the future” (Farmer 4).

“Our day jobs are at offices and we like to come home to this life, where we have to spend time outside and do manual labour” (Farmer 5).

5.1 Small scale farmers

The arable land in Kronoberg is low producing or small in proportion to the forest. The best growing crop is grass, and to be used as a resource it has to be grazed by animals. The highest biological and cultural values are found in the

forest-dominated areas of the county where the farms are smaller in size (CAB 2018b). In 2007 the average Swedish farm had 36,5 hectares, but in Kronoberg, which has the smallest farms in the country, the average was 19,9 hectares (Flygare 2011). What is actually to be defined as small-scale changes with time and development. Large farms may become small in proportion to others, and especially in terms of making money. The five informants are situated in five different municipalities in Kronoberg, but all in areas where forest is dominating the landscape. Four out of five informants have a significant source of income from outside the farm, while the fifth has passed retirement age and switched from dairy to suckler cows.

“It is fascinating to think of the amount of farms we tenant and how many families they supported just a few generations ago. With cottages and crofts belonging to the farms added it is pretty scary that right now one family struggles to live off this land where so many people could live not so long ago” (Farmer 4).

A horizon of understanding is the limits of a person’s knowledge and understanding, and how it can expand in meetings with other actors (Ödman 2007). As the average size of farms increases with rationalization (Flygare 2011) the informants’ farms are large in a historical context. The informants experience themselves as small scale only in comparison to larger farmers and in meetings with certain other actors. As most farmers they are dependent on financial support from the state and EU to be economically sustainable, and in contacts with the authorities the small scale becomes apparent. The CAB’s application system is designed with larger farms in mind. The horizon of understanding changes with the meetings.

“All regulations and all forms and contacts are adapted to large scale. We are not supposed to be able to fill out these forms. I cannot explain the ventilation system in my barn cause there is none; the animals roam outside. I had to redo the applications eight times before it was accepted by the CAB” (Farmer 4).

Farmers get in touch with bureaucracy through the actor of forms from the CAB. The forms as an actor will not just affect the farmers’ horizon of understanding, but also their translations. If the work with the forms is too complicated, it affects the possibilities to gain financial support and also the motivation to apply and in long-term, the motivation to work with semi-natural pastures.

The informant also had problems when building a new barn. They were as applicable as any farmers to get support for their investments from the CAB. Though with years of rationalization thinking behind it was hard for the CAB to work in

unconventional ways. This makes the small-scale farmers to stand out from other larger farmers as actors in the actor-network.

“We had to fight hard to get our investment support from CAB. The solution we had chosen does not match the rational large-scale production. Eventually we got what we wanted but it is not according to CABs suggested guidelines. We wanted to do something of the farm and the land we already had, and build something sustainable right here. Their proposed way was not compatible with our small-scale philosophy. It was not easy for CAB to understand, they are so affected by the rationalization thinking, everything should be large and efficient” (Farmer 4).

The agricultural rationalization and connection between small-scale farms and biodiversity can contribute to explain the decline in biodiversity. With a loss of people in the landscape, the use and disturbances that biodiversity benefit from will decline. The informants claim a greater interest in conserving semi-natural pastures among small-scale farmers than in larger, and how a lot of the expectations are put on the smaller farmers. This is something the CAB officials have experienced too, as the values in the semi-natural pastures require long continuity to develop, this is a long-term matter.

“We small farmers can care for the pastures and the small scale land; the larger farms do not have time or the right resources in terms of machinery, or time, to pay attention to the small and extensive. It is left to us” (Farmer 1).

“The most interesting parts of the agricultural landscape, in terms of biodiversity, are in the depopulated rural parts of the county. The farms have always been small there, or never really grown like in other parts, so it is quite natural, I think. The larger farms with more offensive strategies have rationalized more, and are in areas with a stronger demand for land, it needs to be more intensive there. But of course there are exceptions, and interesting land even in the more rational agricultural areas” (CAB official B).

“I would say the farmers who put time into participate in the extension are not the largest ones. There are examples of larger farms which restore their semi-natural pastures too, but in many cases they do not put time into it, but focus on the animals and the forage” (CAB official A).

5.2 Grazing animals in the actor-network

The animals graze the grass, keep the landscape open and maintain the semi-natural pastures if they are allowed to by other actors. Grazing animals have historically been essential in agriculture in Kronoberg, and farmers are still, due to the agricultural prerequisites, to a large extent dependent on animal production since the landscape in most parts of the county is not suitable for crop production (CAB 2018b). The semi-natural pastures would not exist without grazing animals and they therefore play an essential role, which was stressed by the informants. Landowners today experience a lack of grazing animals and a surplus of semi-natural pastures (SBA 1994), which was also confirmed by Farmer 4 who was offered more land than the animals could graze. That contributes to make the animals an even stronger actor in the actor-network as they are sought after.

I interviewed the informants in January and February and therefore no animals were grazing the semi-natural pastures I went to see. However, in those cases it was possible, the farmers thought it important to show me the animals since their importance is so great when talking about semi-natural pastures. The way the animals were presented to me showed the farmers' pride and affection for them, and the personal relations to the animals. The interviewed farmers also stated the animals as an important driving force to keep up the work with semi-natural pastures.

"I do this because I really like animals, they make it worth all the work and they need to graze" (Farmer 5).

"This cannot just be done as a job, other motivations are needed too. I am really interested in the animals and the breeding. The semi-natural pastures are a nice addition with the landscape and the history they bring" (Farmer 3).

"A strong driving force for me to do this is to see the animals out in the pastures in the summer. It is so beautiful" (Farmer 4).

Without the animals neither the actor-network, nor the semi-natural pastures would exist. They strongly affect the farmers' decision-making and other actors' actions when working with semi-natural pastures and therefore they need to be seen as mediators.

5.3 The landscape in the actor-network

While the CAB talks about biodiversity, the farmers rather talk about the landscape, but in a similar sense. The landscape is where the semi-natural pastures are situated. It can be seen as a dynamic but yet predictable actor, which changes with the translations of other actors. The landscape is an example of a network where multiple actors interact, affecting each other and together create a balance. Without the network of actors, the landscape would turn the semi-natural pastures into forest.

“I have always been interested in the work on the farm. It feels important to keep the landscape open” (Farmer 1).

“There was another farm nearby, they really worked hard with restorations and had a lot of animals. Unfortunately they got tired of it after a while and stopped. Now, after just a few years, all the work is undone, the process is so fast!” (Farmer 2).

“The bushes grow quickly, the work is never ending. The semi-natural pastures here are not very big here, which means a lot of edges along stone fences and similar, many places for bushes and trees to start to grow” (Farmer 2).

The landscape can therefore be regarded as an intermediary, it transports meaning instead of translating it, while it reflects the result of other actors' actions. However, it should be considered a mediator as it affects other actors' decisions. The character of the local landscape affected one of the farmers' choice of cattle breed.

“There are a lot of bushes and oaks here in our semi-natural pastures and they grow fast. That is why we got this certain breed of cattle, they graze bushes and small oak plants better than others, and it has turned out nicely. Otherwise I would have had to do it manually myself” (Farmer 3).

Wild boars are by a government decision part of the Swedish nature and biodiversity (CAB 2016b). Two of the informants had major problems with wild boars and had gotten semi-natural pastures with valuable flora destroyed by them. The wild boar strain is increasing and hard to regulate since they are difficult to hunt. The farmers claimed the problem is growing and threatening their work and the financial support, as the wild boars are unpredictable in their actions. The wild boars thus act as unpredictable mediators in the network.

5.4 Neighbours in the actor-network

The amount of farmers in each village was much higher in the first half of the 20th century than in the end of the century (Flygare & Isacson 2003). Rural people had to cooperate in many ways to manage all kinds of work. The local networks were large with many small actors associated to each other. Today's farmers are lonelier in their lifestyle and part of geographically larger networks. Most of the informants do not have any farmer colleagues in their vicinity anymore, but can instead form networks with their non-farmer neighbours.

The neighbours can be rather unpredictable mediators in the actor-network. Depending on their minds they can be helpful in the work with semi-natural pastures, or rather interfere with the work. Most of the farmers tenant land from multiple neighbouring landowners, who show interest to different extents. From summerhouse owners who spend one week a year in the area to committed owners of small family farms who spend time mending fences and clearing bushes.

“There is no lack of semi-natural pastures in the area. This is almost the only farm with animals around here and we are offered more semi-natural pastureland by our neighbours. My father paid tenancy and did not get the single farm payment. I never pay tenancy anymore, I get the single farm payment and the land owners who live here have realized the importance of grazing animals and the other values they bring, not just the actual money from the single farm payment. That realization of theirs, feels really good to me, I am doing something valuable here” (Farmer 4).

After the farmer started to graze the neighbouring semi-natural pastures, the neighbours have wished to buy the meat produced in their own land, which has led to meat boxes sold straight to the customers, and a new successful dimension in the business for the farmer.

Farmer 5's neighbour thinks an electric fence disturbs their view and has protested to the municipality in an attempt to get rid of it. The fence surrounds a semi-natural pasture between the neighbour's house and a lake. Without the electric fence the animals could not graze the semi-natural pasture and the piece of land would turn into a forest and make the lake invisible from the house. The farmer tried to explain but did not get through to the neighbour.

“We did not have a relationship before, but I would much rather have the possibility to discuss matters in civilised manner with my neighbours than this, no communication or cooperation at all” (Farmer 5).

Instead the farmer gets appreciation from other people in the area who contribute to the farmer's translation of meaning to the job:

"We get visits from people who buy our meat; they bring their children to see the animals, especially when the lambs are small. It is fun to share knowledge about the nature, the animals, the meat and how everything works" (Farmer 5).

In both cases the neighbours affect the farmers' translations of things, which express the power the neighbours have on the semi-natural pastures.

5.5 Financial support in the actor-network

It is well known that many farmers experience financial problems today and therefore most are dependent on the financial support offered by the EU via the CAB, which is the authorities' way to work towards the environmental objective. The semi-natural pastures in themselves do not directly generate any other income, but are nevertheless an important part of the farms and the actor-network. In a society, which is largely driven by profitability and monetary growth, governmental support can be questioned if legitimacy is connected to profitability. In this case the CAB refers to the environmental objective as the reason to financially compensate work with semi-natural pastures. The financial support is an actor in the network that the farmers adapt their work to in order to manage their companies economically. The CAB sets the rules, which have to be followed in order to get the payment, which is also an argument to use extension service from the CAB. The financial support as driving force in the work is important but not as passionate as e.g. the animals.

"The financial support from the state for maintaining semi-natural pastures does not cover the actual work, but is still necessary for the company's survival" (Farmer 1).

"It is impossible to make a living and to keep it up as it is without the financial support from the state. We do not do this for the money, we never have and will never benefit. At first we had to use our salaries to keep the animals, but it is not a sustainable solution to pay to keep the production going. It is better now, but we depend on the financial support" (Farmer 2).

The CAB officials (A)(B) brought up the issue of profitability and semi-natural pastures and claimed there is a long way to go before they can make profit for the

companies and really contribute to the production, a change of mind in the consumers is essential. Also that if the semi-natural pastures could actually produce food, then it would be economically profitable and a lot more interesting to manage, and not just something beautiful reminding people of history.

Farmers are producers of both food and landscape (Flygare 2004). The support could be seen as payment for the products open landscape and biodiversity. The production of landscape and its connected values is not enough to reach the environmental objectives and the financial support should help to increase the levels. If the semi-natural pastures would generate an economic profit in other ways than the by the CAB proposed, the production of biodiversity would be threatened. In the CAB's work towards the goals they are dependent on the farmers to do the practical work.

Farmer 4 and farmer 5 sell their meat in boxes directly to the consumers. According to farmer 4 it takes more time but gives a lot of appreciation back. It started as a way to offer the neighbours meat from the tenant land, and then grew during a couple of years until today with restaurants, customers in the city and the villages around. Some of them even come to the farm to pick up the meat and to see the animals and the surroundings. The farmer claims the price has never been an issue, people are happy to pay for good meat. The animals have grown slowly with just grass as feed. It takes more time but it is a sought after production from the consumers. To increase the market, farmer 4 and farmer 5 both think education for the consumers in agriculture and food is the key.

By selling the meat directly to the consumers the farmers get a higher profitability. In the future it could contribute to an economic value in the semi-natural pastures, which could jeopardize the CAB's work towards the environmental objective if the farmers choose to manage the semi-natural pastures in way that do not benefit the CAB's aims. According to Latour (2005) power is expressed as other actors act according to another actor's will, and therefore give that actor power. In this way the farmers' power shows when the CAB cannot reach their aims without the farmers' work.

One farm works with a traditional Swedish breed as part of a gene pool programme. The production is very extensive to suit the breed, and additional financial support is given to conserve the genes (SBA n.d.). Though the farmer has to finance the production with money from a day job.

“We wanted to focus on traditional breeds, but we cannot make any profit on them. At the moment we pay to work. That is not right. Somehow we have to be more efficient. We are seriously considering using a more rational breed on our next ram, even though it feels wrong” (Farmer 5).

6 History and earlier generations in the actor-network

6.1 History

The landscape has to be understood as a process with historical perspectives (Saltzman 2001). Landscapes accommodate a tension between continuity and change, between constant and dynamic and can thus be seen as a continuous process where the history is present in shaping the future. The semi-natural pastures are situated in the landscape with these conditions.

The reasons to work with semi-natural pastures have changed over time for the farmers. The SBA (1994) claims the earlier importance can be understood with the large amount of cultural-historical values in the pastures, such as stone fences, pollards and ancient fields and the flora and fauna which have developed during a long continuous use. Furthermore the SBA (1994) mentions the agrarian revolution in the 19th century as the point in history when the importance of semi-natural pastures started to decline, though it was not until after the Second World War; that this decline sped up. Until that point the semi-natural pastures played an important role in the farming system during summer, as a source for feed and a place to keep the animals away from arable land and fields. As the agriculture was even further modernized during the 20th century, the nutrient-poor semi-natural pastures could be replaced with pasture on fertilized arable land better suited for the intensive rationalized agriculture (SBA 1994). However, farmers are still using the semi-natural pastures, though for other reasons.

As the use of semi-natural pastures changed, so did the actor-network around them. Before the semi-natural pastures were regarded as landscape producers by the authorities, the CAB was not part of the actor-network, and neither were its chain of actors; the rural development programme, the environmental objective, a varied agricultural landscape, the regulations, the financial support, the SBA, the

external counsellor, the government and the CAB officials. The semi-natural pastures were part of small, local and village-based actor-networks with the farmers, the animals and the landscape as dominant actors. As the authorities during the 20th century became aware of the values produced by the semi-natural pastures, the actor-networks grew as the CAB started to involve (Flygare 2004).

History is a significant actor in the landscape of semi-natural pastures, and so are humans. It is pointless to speculate in what the landscape would have looked like without influence from human actors. The human part in the semi-natural pastures has been so thoroughly and long-lasting it is not relevant to look for something beyond that (Saltzman 2001). On the other hand humans should not be over-rated since they are just actors among others. A number of actors, organisms and processes, are ready to take over when the human actors leave. The human influence on the landscape is not unified. It is characterised by turns between more and less interactive presence and mediated by the other actors of the network.

6.2 Earlier generations

The majority of the farms in Sweden are in some way connected to family. The stereotype family farm from the first half of the 20th century with sustenance and occupation for the whole family is no longer a given, but nevertheless families in different constellations are still often the owners and runners of agricultural companies, which makes agriculture stand out from other businesses (Flygare & Isacson 2003). Four out of five informants had got their farms through inheritance in some way and they stated the heritage and the traditions as strong driving forces in the work with the semi-natural pastures.

“The cultural traces in the landscape and semi-natural pastures are many, large stone walls reminding me of the people that were here once. My grandfather was very interested in the semi-natural pastures and the plants here and I spent a lot of time with him as a child. It has been open here during hundreds of years and that makes it really important for me to keep it that way” (Farmer 1).

“It is a pretty exciting challenge to preserve the heritage with the semi-natural pastures we have got from earlier generations. It is very rewarding to see the animals graze and also when the neighbours appreciate it. It is important for the heritage of the whole village” (Farmer 4).

The four informants who had inherited their farms all talked about the ancestors with different measures of nostalgia as a motivation in their work. Nostalgia

uses the past as a reference point for today; even though it often lacks the authenticity it claims to offer, as personal feelings are added to memories. Nostalgia is also the longing for something that is lost from an earlier part of a person's life (Johannisson 2001). The farmers use narratives from the actors of history and earlier generations to create meaning. They consider only chosen parts of the past, which fit into the creation of an own meaning, and the result is only relevant in retrospect incorporated with the present and the future. The narrative can thus contribute to the creation of the farmers' cultural identity (Ricoeur 1986).

Hence, nostalgia could contribute to keep irrational solutions and old-fashioned methods longer, but it should not be seen as negative even though it could hinder development. It can work as a positive factor in e.g. conservation of semi-natural pastures as it can motivate farmers. Saltzman (2001:222) discusses Unesco's criteria for world cultural heritage which claims; "there is a need to avoid nostalgia in the conservation of cultural landscapes", but also "the best form of maintenance is by active living use". In this case, the involvement of nostalgia should not be initiated by the CAB in the conservation of semi-natural pastures. However, if nostalgia works as a driving force for farmers to maintain an active living use, it should be encouraged and embraced.

Nostalgia can also romanticise an at least partly imagined past and create a longing for an illusion (Johannisson 2001). The farming actors of yesterday and today live and work under different conditions and even if the place is similar, they work and live in different actor-networks since the networks change with time. With romanticizing of life in the past, a black box of the earlier generations is created, and can lead to a longing for another time. However, if the black box is punctured, problems and challenges from the past become apparent.

The earlier generations of farmers are important actors in the actor-network. They affect today's farmers' choice of lifestyle, their traditions and work as a major driving force for the farmers to maintain the semi-natural pastures. The earlier generations also affect the landscape both through the farmers' work today, and as a characteristic for a semi-natural pastures is the long continuous use. To be approved for financial support for restoration by the CAB, the land has to have a history as semi-natural pasture with valuable elements. In such cases the earlier generations and their work are essential for today's farmers.

The feeling of responsibility do not necessarily stop at the border of the family farm, the same reasoning is valid for tenant land on neighbouring farms. Although the informants are surrounded by neighbouring farms, they are not necessarily surrounded by farmers. Cooperation was according to Flygare & Isacson (2003) deeply rooted in agrarian societies, in both the everyday farm work and in more unusual events. The villages with their farmers worked as local actor-networks to manage all the duties in the village, until the middle of the 20th century when ma-

chinery became actors in the actor-networks and started to replace people in the manual work. The number of farms decreased and so did the opportunities for cooperation. Today most of the interviewed farmers tenant land to enable a larger production, and they can be responsible for the land in the whole village. Since their ancestors likely used to work on the neighbouring land too, it does not have to be very different from the way it used to be, apart from the fact that the local agricultural actor-networks are fundamentally changed.

“The major thing is not about owning, but the joy in conserving the nearby environment. My animals graze the land of four neighbouring farms. The land on my own farm is not enough, but that is not the only reason. My relatives worked hard here over a long time, I would not want the pastures in the village to disappear, and there are no other farmers left” (Farmer 1).

The cultural identity of the farmer is strong and part of the heritage. Farmers have often grown up on farms as children to farmers and are raised into the role. The meaning of being a farmer; hard working, with broad knowledge, caring for animals and land is rather transported than translated since the informants describe the will to keep the continuity in the same spirit as earlier generations. Though the motivation to do so must be seen as translated. The ancestors had the farm as their main source of income, which made it necessary to continue. Many of the interviewed farmers keep the lifestyle but get their income from a job outside the farm. The strongest motivation, which has been translated as the strongest driving force, is the fact that so many ancestors have done it before, and no longer the need for survival. Nostalgia is a strong, productive force. The ancestors are still powerful mediating actors today, since they affect today's farmers' actions and decisions.

“This is a farm which has run in the family for centuries, at least as far back as the church books can tell us. My ancestors worked hard here to survive. I do not have to do that, but when I work here collecting wood and mending fences, the thought of the generations before me and their hard work motivate me to continue. I have dreamed of restoring these semi-natural pastures since I was a child” (Farmer 3).

Farmers rely on their experience, what they do is often not only learnt from books but from spending time in the landscape. This makes the CAB's goal of an increased knowledge in the farmers around biological and cultural values in the landscape challenging for the farmers. The CAB officials are in general not farmers but do rather get their knowledge from universities than from practical experience. To claim that farmers do not have enough knowledge, with the collected

experiences from generations of farmers before them indicates a lack of understanding for what the farmers do. It was the practical actor-network of traditional land use that created the values that the CAB today try to protect, even though it is in the hands of the creators.

The ancestors play an important role for today's farmers. The work they have done has created today's landscape and if it is left to nature, it will disappear. If history is read backwards, a long line of farmers will appear before today's farmers, working with the same land. Abandoned land on the other hand, disappears together with the work of the ancestors. Therefore the future and continuity of the farms are regarded as important. However, the farmers know what it means to be a farmer in terms of lifestyle and hard work, which is a reason to why the interviewed farmers do not put much pressure on the next generation to take over the farm:

"I do what I can, with the conditions and requisites I have got. My children are not so interested, but it does not have to be passed down to family, the important thing is that it is managed in the same spirit, and not just left for the forest to take over. I do not think a lot about the future in that sense" (Farmer 1).

One of the informants did not talk about the heritage they manage, but was the only one who had not inherited the farm and also neither had any family connection to the farm, nor to the area. Without children in the family, the farmer planned to sell the farm in time for retirement. In a discussion around driving forces the farmer brought up the challenge with the financial situation and the decline in motivation it brought. The other four farmers also discussed economy, but added the continuity and the heritage as strong reasons to keep working despite that fact. This shows the importance of heritage for the motivation; the history is used to make sense of the hard work today.

7 The actor-network of semi-natural pastures in Kronoberg

7.1 The farmers and the CAB

An actor-network does not rank the actors within the network; they are situated on the same level relating to and affecting each other (Latour 2005). However, different actors have different prerequisites. The actor CAB is formed by regulations and official documents, and even though the black box of the CAB can be punctured, and flexibility in the regulations is shown, the CAB is still a very different actor compared to the farmers and their chain of actors in the actor-network. The CAB's chain of actors has an official view and translation of the farmers, formed by the different actors; the rural development programmes, the environmental objective, regulations, the government, the EU, a varied agricultural landscape, the financial support and the SBA. They translate the farmers as producers of food and landscape, as well as creators of an open landscape with grazing animals. The regional rural development programme claims it is crucial to give the farmers more knowledge in order to care for the varied agricultural landscape. The CAB has goals set based on these translations, and to realize them the CAB offers financial support and compensations for actions performed by the farmers. If the CAB officials or the external counsellor would express a different opinion, that too would be an example of a puncture of the CAB's black box.

The farmers and their chain of actors do not possess an official role in the sense the CAB does, which means their translations of the CAB and the CAB's work are personal and often affected by feelings rather than official standings. The farmers often expressed ambiguous translations in similar ways as towards the CAB and the CAB officials.

“I think the financial support from the CAB has saved many old cultural landscapes. There is no economic benefit in keeping them, which means some other encouragement is needed to bother use them. However, it is not enough. More needs to be done, the CAB needs to wake up now before it is too late” (Farmer 1).

“I like that there is a possibility to apply for financial support but sometimes things take so long, the animals and the nature do not rest. During the application for restoration we had to wait for the CAB almost a whole year before we could start, but with our five years running, and the bushes growing. It was very frustrating” (Farmer 3).

“Earlier, the CAB would always decrease the amount of land we had included in the financial support. It was very frustrating. But I must say it has gotten a lot better. Maybe they went to charm school or something. It has changed and now we have a dialogue and my attitude is much more positive towards the CAB. I have even gotten to know a few of them, and I can call them straight away in case there are problems. I do think they genuinely try to help us, but they must feel so restrained, the CAB, with the SBA changing the regulations in the middle of everything, and everyone else has to fill out new forms and change their work. That is frustrating” (Farmer 4).

Related to the discussion in chapter four around different kinds of knowledge are the effects of the extension service from the CAB. The extension service aimed for semi-natural pastures is appreciated by the farmers, partly because it is free, but not translated entirely in the way the CAB intended.

“The extension from the CAB has made me more aware of the semi-natural pastures, but it has not changed the way I work. The counsellor confirmed my own thoughts. I appreciated the clear instructions, like remove those trees, instead of the CAB’s vague directions” (Farmer 1).

“I got extension as a preparation for a restoration application later this year. I appreciate that it is free, but I still let my common sense guide me in the work, I have not changed the way I think about the pastures after the extension” (Farmer 2).

Two of the interviewed farmers said they would rather receive guidance stronger related to the support system, what they need to do to reach the requirements, and know more about what the CAB officials value during inspections.

The CAB often has the unappreciated role as messenger, informing about limitations in the regulations, and about rejections on applications, easy to dislike. However, the farmers' translations of the CAB are not entirely negative. While the farmers talk about the CAB as a source of problems, there is also an understanding for the work they do, especially for the officials as actors. Approval and appreciation from the CAB has meaning for the farmers.

“At first the CAB did not approve the land as semi-natural pasture, but I kept working as I have always done, and now they approved it and told me it is really beautiful” (Farmer 4).

“When I applied for restoration, I could tell this land had so much potential and it was fun to hear that from the CAB too” (Farmer 3).

“I have a dialogue with the CAB now and it is fun when they are engaged and show interest and appreciation. Now they have even asked me about my opinion. It is moving in the right direction. Earlier they would never communicate anything but bad results. This new situation leaves room for some adjustment and is much better for the mood” (Farmer 4).

The farmers realize the complexity in the CAB's work, and do understand that the officials sometimes have a hard time. However, the farmers also protect their own interests, and raise their voices in protests when actions from above through the CAB can be translated as outdistancing from the farmers' reality. It is hard to fit the dynamic landscape into a frame of regulations without too much trouble.

7.2 The power of the CAB and farmers

Power in actor-networks resides in the translations. An actor cannot express power by itself; it has to be expressed in other actors' translations. Thus, other actors can give power to an actor, but also choose not to (Latour 2005).

The EU, the SBA and the CAB are actors in the actor-network and can easily be seen as powerful as they are large institutions. Though when they set goals for semi-natural pastures, they are dependent on other actors to perform translations in ways that benefit the work towards the goals. It becomes clear with semi-natural pastures as the farmers and their chain of actors are doing the practical work. Continuation is deeply rooted in the work, which the European seven-year programme periods cannot compete with. The actors' work is compensated and encouraged with conditional financial support as incentive. As the profitability is often low in

agriculture, many farmers are dependent on the financial support to be economically sustainable. The informants expressed a feeling of obligation to work according to the CAB's conditions due to their dependence on the support, and therefore felt powerless towards the CAB. To secure the support, they try to strictly translate their work according to the CAB's system and aims.

The officials at the CAB discussed a goal set to a certain amount of hectares of semi-natural pastures with financial support at 2020, the end of the current programme period. The CAB's actions to reach the goal are to offer extension service and financial support as compensation for the work. However, instead of an increase towards the goal, the amount had to this point been decreasing. The CAB is dependent on farmer and their chain of actors to work towards the goal, and if they do not see enough incentives in the semi-natural pastures, they will not do it. The CAB officials A and B think semi-natural pastures require an interest and will to conserve the land and to develop it in line with biodiversity actions, which were also confirmed by the interviewed farmers. The CAB officials also discussed the possibility in developing a market around the semi-natural pastures in ways to reach economic sustainability without the financial support, through e.g. extensive meat production, which is brought up in the food strategy¹¹. To really reach sustainability in semi-natural pastures, they need to generate profitability, and the CAB officials think it could be possible in the future, but if so, the politics need to perform a lot of changes around the market and the food production. There are groups of costumers interested in meat from semi-natural pastures. One of the informants could sell some of the meat directly to consumers with a higher price motivated by the benefits of the extensive production. To interested consumers the price did not seem to be an issue, the limitation right now was their own time to find new customers, but a long term goal was to sell all meat through direct sales.¹² Though even with the larger income from the meat, the farmer was still highly dependent on the financial support from the CAB. In that way, even if the farmer was moving towards a better profitability, with the financial support power was still given to the CAB by the farmer. However, the decline in semi-natural pastures shows the lack of power the CAB has, to reach their own goals when not enough actors translate the semi-natural pastures according to the CAB's goals.

In the previous EU programme period (2007-2013) a maximum number of trees per hectare for semi-natural pastures was set. That was an issue to one of the informants. Some of the semi-natural pastures on the farm were valuable to the farmer even with a large amount of trees. The animals liked the shade and the trees prevented moist areas from being flooded. To receive financial support the trees

¹¹ Livsmedelsstrategi.

¹² Köttnådor.

would have to be removed. The farmer decided to keep the trees and let the animals graze the area without financial support. A neighbouring farmer needed the money and removed the trees in his semi-natural pasture. Today the two paddocks next to each other look very different. The informant who kept the trees receives full support for the area today as the tree regulation was removed. The farmer who followed the directions from the CAB around ten years ago and removed the trees has another situation today. Fewer trees than required were left to be sure to fulfil the requirements. Most of the remaining trees fell down during storms the following winters and not many trees were left at all. The area started to flood and did not dry up properly even during summer. That changed the vegetation from grasses and flowers to mainly wetland plants, disliked by animals. The feed value was lost and without the grass, the CAB did not approve the paddock as a pasture and the financial support was lost.

The farmers translated the situation differently. The first farmer's translation did not work to fulfil the CAB's goal at that point in time, and the CAB was not given power. However, the farmer did not work according to the CAB but to the own mind on what was best for the sustainability of the semi-natural pasture, which has resulted in a remaining semi-natural pasture, and with a change in the EU and the CAB's translation of semi-natural pastures, the farmer's translation is confirming the CAB's power today. The other farmer worked according to the CAB's directions, confirming the CAB's power. Though in the end with a result not in line with the CAB's goals to increase the semi-natural pastures.

The interviewed farmers talked about their feelings of being powerless towards the CAB. Though they are not obligated to follow the CAB's directions, but actually free to manage the semi-natural pastures as they want. The CAB's power does only exist when other actors' translations create power. The farmers are forced to do what they can to reach economic sustainability on their farms. As that affects their translations, power is given to money, and often in the case with semi-natural pastures and agriculture in general, to the financial support. The financial support is part of the CAB's chain of actors, which means it will also benefit the CAB.

The first farmer in the example above translated the situation not according to the financial support in the first stage, but to the landscape, thus giving the landscape power. Semi-natural pastures develop their characteristics and biodiversity over long periods of time, and to reach sustainability it is essential to work with the processes the landscape has to offer, and therefore also give power to the landscape. Power is also given to the earlier generations when actors translate current situations with the heritage in mind.

7.3 Restoration of semi-natural pastures

Restoration of semi-natural pastures is an agri-environmental payment. All the interviewed farmers had done, were in the middle of, or planned to go through with a restoration of a semi-natural pasture. In their translations of the process, the history and earlier generations were present.

“This is old pasture land. It was open during a very long time; it is fun to recreate it to that state again” (Farmer 2).

“It has been a dream to restore this landscape for me during a long time. I want it to look like it once did. When I got the chance I had to take it” (Farmer 3).

“The small, old and beautiful areas are almost extinct. If I can do something, I will” (Farmer 1).

A restoration is a commitment farmers can apply and get compensation for. As part of the application process the CAB meets the farmer and examines the land, which has to have a history of grazing and a potential to re-develop high natural and/or cultural values after the restoration to be approved. If it is considered to be possible, the CAB, in cooperation with the farmer, creates a five-year plan for the restoration. The plan can specify which kind of trees and bushes to cut down, often at two separate stages, and to let animals graze. Then the farmer gets restoration support during five years, and is expected to follow the plan. After five years the CAB does a final inspection. The inspection evaluates whether the farmer followed the plan or not and what kind of values is has resulted in, or may result in, in the future. If the land is approved, financial support for semi-natural pasture can be applied for. There is quite a difference in the amount of money between an average semi-natural pasture and one with special care. Just because a restoration is done, it does not guarantee the farmer the pay for special care. If the work is not completely finished, the farmer can get another year without pay, to finish the last actions before the inspection for approval (CAB official C).

When applying for restoration the farmer commits to let their animals graze the area at least five years after the finishing. Though the CAB cannot deny anyone restoration support based disbeliefs in the continuity. Since a restoration requires quite a lot of work and five years is still a short period of time in the context of semi-natural pastures, which need a long term use to be sustainable and develop its potential biodiversity, the unspoken aim is longer than five years (CAB official C).

“One person from the CAB was here and we created the restoration plan together. Unfortunately there was someone else who came to inspect the progress. I had an agreement with the first one, a plan, but the new person had a different view on how things should be done. It was problematic and it still bugs me, this kind of work should be long term and needs time and continuity, I think the process would benefit from having the same person through the whole process. But I appreciate the flexibility; they gave me another year to finish the work. In general the restoration has been a positive experience” (Farmer 4).

There are different officials working with different parts of the restorations at the CAB in Kronoberg. One official normally performs the initial visits and creation of the plans and another performs the final inspections. According to the CAB, two different officials inspecting is a way to secure the legitimacy in the decision. If the first official translates the potential return of high natural or cultural values in an incorrect way, the second official may translate it differently, correctly. With this system, the CAB is puncturing its own black box, since it contains recognition of a difference in the officials’ judgements. The landscape can be regarded as an unpredictable actor here, as it according to the CAB officials can be complicated to foresee the effects of restorations. The officials have to predict the landscape’s translation of the performed actions and change in management.

However, the responsibility for the actions taken and the results of it is the farmers’. Even if a farmer transports the agreed plan from the CAB, directions from the CAB and perhaps also extension service with the external counsellor, neither the CAB nor the counsellor take any responsibility for unexpected results.

One possible cause to the problem was highlighted by one of the CAB officials. Some of the CAB officials and the external counsellors are biologists with a focus on nature conservation, landscape protection and biodiversity. The inspectors on the other hand are regulation oriented, and the farmers stand for a third perspective. Semi-natural pastures are not black or white, there are different ways to do it, and problems are sometimes unavoidable (CAB official B).

The problems the farmers around semi-natural pasture restorations have did for some result in avoidance of the CAB when it is not necessary.

“We have restored a few semi-natural pastures recently, but we did it ourselves without support from the CAB. It was easier; we just needed it to be done efficiently” (Farmer 2).

“This is the last time we use the CAB for restoration. Next time we will do it ourselves, the struggle this has caused is not worth the money we get. If we do it ourselves we can choose the pace and the way to do it. We are now slaves under

the regulations. The relationship between the CAB and farmers is not equal, and after this experience it just feels uncomfortable. Just the fact that I have to run around here with different people and listen to their different opinions, it takes too much time and energy” (Farmer 3).

7.4 Landscape and biodiversity

Continuity and change, constant and dynamic, history and present, all meet in the landscape. It changes with the seasons throughout the year, and reacts dynamically to other actors’ actions. Knowledge of the social, ecological and historical relations landscapes are part of is important in order to understand them. They can thus be hard to grasp, especially since landscapes are formed through use in local context and therefore have a great variety. However they should not be seen as mythical and indefinable. The constant change should be what defines a landscape (Saltzman 2001).

The work of natural processes is essential in landscapes and even agricultural landscapes are often regarded as part of nature, even though agriculture, as part of culture, also can be viewed as an opposite to nature. The farmers are in one way working against the landscape and its actors; fighting weeds, droughts and other natural phenomena, a constant disturbance on the landscape’s balance. But the farmers are also, perhaps paradoxically, working with the landscape. Without help from the ecosystem services agriculture would not exist. No actors apart from the humans feel the need to categorize and define landscapes as natural or cultural, even though the landscape is clearly an example of the interactions between a number of natural and cultural actors. Moreover, every person perceives landscapes differently; people tend to see what they look for (Saltzman 2001).

The complexity and difficulty in categorizing the landscape can be a reason to why the CAB has chosen to rather talk about the more quantifiable biodiversity instead of the landscape. It is hard to include all perspectives in a landscape in a practical way, and as different persons can translate landscapes differently, the complexity increases. With biodiversity smaller parts can be studied instead, though with the risk of missing actors that can seem to be trivial but still have large impact. To conserve variableness is a challenge, as is conservation of a species, but the latter has clearer limitations to relate to (Saltzman 2001).

8 Concluding thoughts

Semi-natural pastures are dynamic and continuously changing. The same is valid for the actor-network, as actors change they will affect the associations of other actors, which will change the actor-network.

When history is read backwards the patterns seem obvious. A new generation takes over after the former. But seen from another perspective it is far from given, most of the small farms that once were, no longer exist. To work with semi-natural pastures is a gamble, if it is left without care, the result of generations of work will disappear quickly and take years or decades to restore, if at all possible. The traditional way to go is to leave the production and lifestyle to the children, and this cannot be taken for granted in today's society.

Semi-natural pastures in themselves do not generate any profit. The financial support covers parts of the costs, but not all. The farmers who work with semi-natural pastures thus need other incentives that can make up for the lack of economic sustainability. The interviewed farmers mentioned the heritage from the earlier generations, the cooperation with the animals and the landscape as their driving forces, and how they need to be strong enough to motivate the work despite the long hours and the low pay. As economy is a core in today's society, not much functions without economic sustainability. However, since the amount of semi-natural pastureland is decreasing in Kronoberg, the driving forces are not strong enough.

The farmers and the CAB have a mutual wish to preserve semi-natural pastures. The CAB creates aims for the semi-natural pastures, but the fulfilling and the power are in the hands of farmers and therefore that is where the focus needs to be. The environmental objective's way of increasing the amount of semi-natural pastures is to increase the farmers' knowledge of natural and cultural values in semi-natural pastures, but that is more a sign of a difference in perspectives, and an attempt to find a simple solution to a complex problem. It rather shows the need for an increased knowledge among the authorities. There is a dichotomy in knowledge between the farmers and the CAB, both actors are strong in their

knowledge, but with different perspectives which they do not manage to bridge over to properly take advantage of each others' abilities.

The farmers in this thesis are all to be regarded as small scale, and the CAB connects high biodiversity values to small scale. Though with the small scale comes problems with bureaucracy and systems, which are adapted to large-scale agriculture and thus cause problems for the farmers. In that way the CAB works hindering for the farmers, and that together with a low profitability can override the farmers' driving forces to continue the work.

Some small-scale farmers find other ways to increase their profitability, e.g. through direct sales of meat as a way to assign a value to the semi-natural pastures. One of the interviewed farmers describes the direct sales as a success with higher profits and positive feedback from the customers. However, part of the success is due to the small scale, which means it may not work on a larger scale. A larger scale would require a lot of work from the farmer to keep up relations with the customers, and require more efficiency. Direct sales could be very positive but other ways are needed to reach solutions for economic, social and environmental sustainability in semi-natural pastures in a larger and long-term perspective.

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