# The impact of a buffer zone

The influence of the introduction of buffer zones surrounding Natura 2000 areas on local actors, the case of het Boetelerveld in the Netherlands

Inge van Dasselaar

December 2013

Supervisor: J. de Koning

FNP-80436

# The impact of a buffer zone

The influence of the introduction of buffer zones surrounding Natura 2000 areas on local actors, the case of het Boetelerveld in the Netherlands

Inge van Dasselaar

Student number: 891206 172 090

Wageningen University Master Thesis Forest and Nature Conservation Forest and Nature Conservation Policy group FNP-80436

Supervisor:

Dr. J (Jessica) de Koning

Wageningen, December 2013

# **Summary**

Natura 2000 is a strict policy were no decay of nature is allowed. To meet the aim of Natura 2000 and stop the decay of the nature in these areas buffer zones are introduced. Buffer zones are lands surrounding the Natura 2000 area to reduce the influences of humans on the Natura 2000 area. Often there are restrictions on these lands, which have impact on the locals who live there. The aim of this study is to find out how buffer zones are defined in official and unofficial context and in the second place what the impacts of the implementation of buffer zones are for the different actors who are involved.

The research is based on different theories. First the theory of multi-level governance is discussed which describes the policy making process in the European Union. Before a policy can be implemented in the local context it goes through a lot of different layers. If this policy will be accepted depends on the legitimacy of the European Union. The second part of theory is about interpretation and the theory of interpretative policy analysis and framing is discussed. Framing is about what people say about a concept, this depends on their own views, history and experiences. This is also shown in the interpretative policy analysis, were is said that everyone has his own interpretation of policy depending on your background.

To execute this research there is chosen for a case study. The case is het Boetelerveld, a Natura 2000 area in the province of Overijssel in the Netherlands. The case area is surrounded by farmlands and a buffer zone is designated in this area. The buffer zone puts restrictions on the lands of the farmers in the area. To find the official definitions of a buffer zone different documents are consulted. Next to this semi-structured interviews were held with different stakeholders. Among these stakeholders there were farmers, nature organisations and governmental organisations. Transcriptions of the interviews were made and these were used in atlas.ti for coding and analysing.

The official definitions of buffer zone differ among different levels of government. On the level of European Union buffer zones are really biodiversity and nature focused, while the Dutch government wants to use the area also for economic development next to nature development. In the case area, het Boetelerveld, buffer zones are seen to serve the Natura 2000 area to be able to reach the nature goals. The process of implementation Natura 2000 and the buffer zones in het Boetelerveld is a long and frustrating process, where farmers try to obstruct the designation. The measures which are taken in the buffer zone depends on the location of the land. The ground water flows are important in the designation of the measures. There are two types of measures, creating higher of ground water levels and reduction in usage of fertilization. These measures can be applied separately or together on the farmland, depending on the location. The effects these measures have is that the lands have higher moisture levels which makes it harder to process the fields. Reducing fertilization has as effect that the production of the lands is less, which means less profit for the farmers.

Different stakeholders had different definitions and thus different frames of buffer zones. The two most opposing frames were from the farmers and the nature organisations. The farmers framed buffer zones as a problem and a bunch of unnecessary rules while nature organisations framed buffer zones as areas which are needed to reach the goals in the Natura 2000 area, it are areas to serve nature. Other actors had frames which were in between these two frames. These opposite frames created conflict and interaction between the actors was difficult.

The study conclude with that the definition of buffer zones is not clear, both among actors in unofficial context and in documents in official context. It seems that there are no clear guidelines and learning moments from the past. One of the issues which causes troubles and conflicts was the weak legitimate power of the European Union among the farmers. They did not take the European policy for granted and tried to get out of it. The impact buffer zones have on actors differ per actor, they can vary from very small, where the farmer is restricted in just a small part of his business to very big impact, where the farmer cannot use a large amount of his land which means he might have to quit his job. The research report ends with policy recommendations which are about creating trust in the process among different actors by have a clear and open interaction. Always let all the actors know what is happening on each moment. This creates trust and understanding among all actors.

# **Table of content**

SUMMARY	4
TABLE OF CONTENT	7
1. INTRODUCTION	9
1.1 Buffer zones in literature	10
1.2 Problem statement	
1.3 RESEARCH OBJECTIVES AND RESEARCH QUESTIONS	13
1.4 OUTLINE OF THE THESIS REPORT	14
2. THEORETICAL FRAMEWORK	15
2.1 Multi-level governance	15
2.1.1 Legitimacy and local implementation	16
2.2 INTERPRETATIVE POLICY ANALYSIS AND FRAMING	17
2.2.1 Interactional framing	
2.2.2 Frames in conflict	
2.3 CONCEPTUAL FRAMEWORK	20
3. METHODOLOGY	22
3.1 CASE STUDY	22
3.1.1. General description of the case area "het Boetelerveld"	22
3.1.2. Choice for the case	23
3.2 METHODS	24
3.2.1 Selection of respondents	24
3.2.2 Data collection	25
3.2.3 Data coding and analysis	27
3.3 ETHICS, VALIDITY AND RELIABILITY	28
4. IMPLEMENTATION OF THE BUFFER ZONE	29
4.1 Buffer zones in Europe and the Netherlands	29
4.1.1 Buffer zones in het Boetelerveld	30
4.2 THE BUFFER ZONE DESIGNATION PROCESS	31
4.3 THE RULES IN HET BOETELERVELD	33
4.3.1 The effects of the Buffer zone in het Boetelerveld	36
4.4 Sub-conclusion	36
5. INTERACTION, IMPACT AND CONFLICT	39
5.1 DIFFERENT DEFINITIONS	39
5.2 Interaction and conflict	42
<u>5.2.1 Farmers</u>	42
5.2.2 Nature organisation	45
5.2.3 Governmental organisations	46
5.3 IMPACT OF BUFFER ZONES	47
5.4 COMPENSATIONS FOR THE AFFECTED	50
5.5 Sub-conclusion	51
6. DISCUSSION	53
7 CONCLUSION	55

7.1 ANSWERING THE RESEARCH QUESTIONS	55
7.1.1 question 1	55
7.1.2 Question 2	
7.1.3 Question 3	
7.2 Theoretical reflection	
7.3 REFLECTION ON THE METHODS	58
7.4 Policy recommendations and further research	59
REFERENCES	61
APPENDIX A: INTERVIEW GUIDE	66
APPENDIX B: LIST OF INTERVIEWS	69

# 1. Introduction

Nature is vulnerable for all kind of threats. There are influences from surrounding land use activities, also isolation and fragmentation of nature areas is a threat for nature (Vujakovic, 1987). To protect the nature in Europe the European Commission designed a policy, Natura 2000. Natura 2000 is mainly regulated by two directives; the bird directive of 1979 and the habitat directive of 1992 (Ostermann, 1998). The aim of this policy is to form a nature network of different habitats to create an ecological sustainable Europe (Hiedanpää, 2002) (Backes, et al., 2011a). In 2010 about 17% of the European Union's territory belonged to the Natura 2000 network and therefore it is the largest network of protected areas in the world (European Commission, 2010). Within this policy every EU member state is responsible for the planning and implementation of this policy in its own country (Hiedanpää, 2002).

In the Netherlands there is a relative high amount of Natura 2000 areas designated; about 13% of the Dutch territory belongs to Natura 2000. The biggest Natura 2000 areas in the Netherlands are water bodies, such as the Waddenzee. About 50% of the Natura 2000 areas are managed by nature organisations, the other 50% belongs to private owners and the government. In the Netherlands Natura 2000 areas are often surrounded by agricultural lands (Backes, et al., 2011a). This has stimulated lots of discussions on potential impacts of agricultural lands on Natura 2000 areas. According to article 6 paragraph 2 of the habitat directive countries are forced to take measurements to prevent degradation of the nature areas. Ecological decay of the Natura 2000 areas must be prevented in long term planning. Arguments for not reaching the Natura 2000 goals such as budget limits are not accepted by the European Union (Backes, et al., 2011a). So once a Natura 2000 area is designated the government is obligatory to manage the area, and surroundings, in such a way that the Natura 2000 area meets the goals of Natura 2000 policy and therefore does not degrade anymore for any reason.

To protect nature areas from degradation special protection areas, surrounding the Natura 2000 area, must be designated according to article 3(1) of Directive 92/43/EEC (Potocnik, 2011). In this research and in the Netherlands these special protection areas are called *buffer zones*. Buffer zones are important areas for extra protection of the Natura 2000 area (UNEP-WCMC, 2010). It is a zone lying between different types of areas with different land use, for example a nature area and a polluting agricultural area, with the purpose of reducing damaging interactions between them (Ebregt & Greve, 2000). The higher the population pressure in an area the smaller the protected areas and buffer zones will be. Therefore the ecological sustainability of these areas cannot be guaranteed, however in Europe nature areas are ecological not that important for livelihoods. In Europe nature is mostly valued through their recreational and ethical value (Ebregt & Greve, 2000).



Figure 1.1: Schematic overview of buffer zones (adapted from: Stichting natuur en milieu et al., 2009)

A buffer zones is a tool to protect the Natura 2000 area from degradation, this is especially important in areas where agriculture and nature areas are lying next to each other as is the case in the Netherlands. Buffer zones are designed to reduce the impact of pollution on the Natura 2000 areas. The restrictions in the buffer zones will protect the Natura 2000 area against ammonia (Schou, et al., 2006) and desiccation by regulating the emissions and the groundwater level tables depending on the threats for the Natura 2000 area. The aim of buffer zones is by strictly regulation the emissions as a basis for reduction of the impact of surrounding lands of nature areas. Buffer zones can be seen as supplementary measures to international and national regulations to reach sustainability goals (Schou, et al., 2006). In figure 1.1 there is shown how a buffer zone might look like; in the centre there is the protected nature area, which is surrounded by buffer zones. The buffer zones will protect the nature area from the threats of the intensive agricultural use of the surrounding areas. It is allowed to use the land in the buffer zone for production or agriculture, however with limits in usage of for example fertilizers or even stables are forbidden in the buffer zone (Pronk & Brinkhorst, 2002). Thus, buffer zones can still be used as agricultural lands but with restrictions in the usage in comparison to the "normal" agricultural lands. In this way the human impact on the Natura 2000 area will be minimalized.

#### 1.1 Buffer zones in literature

The description of buffer zones and how buffer zones are defined differs among different researchers and studies. Some researchers use the UNESCO zoning schemes for biosphere reserves is as context for the buffer zones (Götmark, et al., 2000). In this zoning scheme buffer zones are described as an area which surrounds or connects core areas, which are the protected nature reserves. In the buffer zones ecological activities are possible, such as environmental education and ecotourism. According to this scheme buffer zones can have their own intrinsic function for maintaining anthropogenic, biological and cultural diversity (UNESCO, 2013). The buffer zones as described in the UNESCO biosphere reserve is really nature focused without any permission of development. However there is another zone described in this scheme, which is the transition area. The transition areas in the biosphere reserves zoning schemes are areas with a central function in sustainable development which might contain agricultural activities and settlements (UNESCO, 2013)

In literature, buffer zones in Western Europe are often seen as tool to reduce the impact of nitrogen on specific areas (Carluer, et al., 2011). The idea is that in the buffer zones the pollution of different sources must be reduced (Muscutt, et al., 1993). In buffer zones land use is regulated to protect the nature area (Götmark, et al., 2000) (Schou, et al., 2006). It is often about Nitrogen regulation in the buffer zones in Western Europe. Buffer zones are researched in ecological ways, such as; if buffer zones are a tool to reduce pollution via water ways (Carluer, et al., 2011) or what to predict what effect buffer zone has on pollution and erosion (Tattari, et al., 2003). These studies shows that buffer zones where nitrogen regulation is applied have a positive effect and pollution is reduced in the area which the buffer zone needs to protect. This means that buffer zone can be used as tool to decrease pollution to protect nature areas. The costs of buffer zones are researched in Denmark. This research concluded that depending on the place, complexity of emission and deposition patterns that there can be a socio-economic advantage of establishing buffer zones (Schou, et al., 2006). Buffer zones can reduce or even replace the necessity for other nature

restoration activities, which might have more social and economic impact (Schou, et al., 2006). Thus to protect nature buffer zones definitely can be a solution to lower pollution rates in nature areas as the ecological studies shows. However the buffer zones also have impact on surrounding companies, and these social impacts are still not very clear.

Buffer zones are placed outside nature areas itself, which means that other lands needs to be sacrificed for nature. The introduction of Natura 2000 is part of the globalisation of conservation, which means that nature conservation is becoming more global. This globalisation of conservation increased the number of interactions of conservation with livelihoods of people (Zimmerer, 2006). The introduction of buffer zones in the Netherlands also interacts with the local farmers, but how exactly is something to discover. Natura 2000 is designed by the European Union and every member state has to implement it. The implementation of the policy goes through different layers of government, this will be described with the help of the theory of multi-level governance in chapter 2.

In sum, most research available investigating buffer zones are about the ecological impacts of buffer zones and how buffer zones ecologically work (Thorell & Götmark, 2005) (Mwalyosi, 1991) instead of the social impacts of buffer zones. The purpose of buffer zones described in literature is mainly two-fold; first to eliminate or reduce negative influences on nature areas from their surroundings and second to strengthen the sustainability of the nature area (Thorell & Götmark, 2005) (Vujakovic, 1987). In Africa buffer zones are used as tool to solve problems between nature conservation and local inhabitants. The buffer zones in Africa works in two ways: to prevent the habitats for wildlife and to protect the crops and livestock from damage by wild animals (Vujakovic, 1987). In the Netherlands the wildlife is not that dangerous and are buffer zones mainly used to protect the nature area.

# 1.2 Problem statement

By putting nature conservation first in an area it is likely to create conflicts about rights and interests with users of the area (Gibbs, et al., 2007). Protected nature areas are under pressure of increasing populations with increasing economic needs (McNeely, 1994). With the conflicting demands in an area it is important to seek for opportunities for collaboration between different stakeholders (McNeely, 1994). To reduce human influences on the core of a nature area, buffer zones might be introduced. Buffer zones are most needed to protect small nature areas since these areas have a large proportion of edge habitat (Thorell & Götmark, 2005), in addition small nature areas are also really vulnerable for human disturbance, such as agriculture, forestry and urban growth (Götmark, et al., 2000). The human influence on a nature area might be reduced by designating buffer zones, this means limitations in usage for the people who live there. Consequently, there will be a human-nature conflict in that area, since people are restricted in usage of the lands to protect a nature area.

In the Dutch policy context buffer zones are aimed to have a dual functioning of both serving nature conservation and development goals (Ebregt & Greve, 2000). By implementing the buffer zones conflicting demands in the same area will occur, which creates challenges in the implementation of the policy. Examples of a challenge is what do you want to protect through the means of the policy, are these specific species or whole ecosystems (Gibbs, et al., 2007). Another challenge is how to design an area to preserve the nature with adaptive management (Gibbs, et al.,

2007). These are mainly ecological challenges, however there are also social challenges, since the new policy will have impact on the inhabitants of the area. Especially farms and corporations close by Natura 2000 areas might experience huge negative effects of the introduction of the buffer zones (Doorn & Paulissen, 2009). They are restricted in usage of their own grounds since their practices have impact on the nature in the protected areas (Doorn & Paulissen, 2009). A study from Denmark shows that farmers do not like being restricted in their practices even though when they will be compensated (Christensen, et al., 2011). The new policy which creates restrictions for farmers can thus create conflicts between the different parties.

As said before, in the Netherlands Natura 2000 areas are often surrounded by farmlands. Buffer zones have to be placed between the polluting agricultural lands and the Natura 2000 area, however the agricultural lands border with the Natura 2000 areas, which means that there is no space for the buffer zone. The farmlands have to be sacrificed in order to create the buffer zones, since it is not allowed to shrink Natura 2000 areas. There are no exact blueprints of how buffer zones must look like, every area needs a different application of the buffer zone to fit the best in the context. The designation of buffer zones is normally based on limited information (Ebregt & Greve, 2000).

Buffer zones are designed to reduce impact of polluting areas and human impact on the nature areas. This means that there is a possibility that changes in livestock production needs to be made by the farmers in the buffer zone areas (Schou, et al., 2006). The implementation of buffer zones needs to lead to reduction in loads of pollution and the largest effects will occur with help of regulations to change both existing and future livestock (Schou, et al., 2006). The changes in production of livestock affect the farmer, which is the one working with the livestock. A change in production of livestock is not the only effect of buffer zones. Also lands which are currently not used for livestock production are affected economically by the buffer zones because of reduced option value (Schou, et al., 2006). Due to the restrictions on the land, the value of the land decreases, this affects the owner of the land, which lands are worth less due to the buffer zones. The introduction of buffer zones leads to negative effects on the farmers who has (part of their) lands in the buffer zones.

During the introduction and implementation of Natura 2000 there were conflicts between different parties, these conflicts were mainly caused by fear and uncertainty about the policy and the impacts of the policy (Beunen, et al., 2009). Uncertainty is also an issue in the designation of the buffer zones. Farmers will be restricted in the usage of their own lands, but what the impact really is, is still unknown yet. For example in one case the house of the farmer lies partly in the newly designated buffer zone, here it is not clear what should happen (Luijmes, 2013). Since there are uncertainties on how strict the rules are in the buffer zones farmers are sceptical about it. Next to the uncertainty Natura 2000 is often perceived as too nature focused. While the intention of Natura 2000 policy is to create a balance between sustainable development and nature conservation, this is shown in figure 1.2. However a lot of people do not have the feeling that this balance is really there, they perceive Natura 2000 as too nature focused, or even too focused on individual species. This creates misunderstandings and negative attitudes towards the Natura 2000 policy. With the introduction of the buffer zones surrounding Natura 2000 areas the influence of Natura 2000 on the local companies increases.

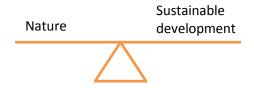


Figure 1.2: Balance of Natura 2000

When farmers are affected by nature policies they might be compensated, this applies both for national and international nature policy (Backes, et al., 2011b). Compensation can take place in different forms; financial compensation and replacement of lands. Financial compensation is straight forward; the farmer gets money in exchange for his land or the lost production. The second option for compensation is replacement of land, which means the farmer gets another piece of land at another location in exchange of the land which lies in the buffer zone. The compensation for farmers has to be done in consultation with the farmers which is time consuming and farmers are not always willing to co-operate (Beunen, et al., 2009). When farmers are not willing to co-operate problems might occur.

The designation of buffer zones surrounding nature areas are likely to cause changes in farms and corporations outside the zones (Schou, et al., 2006). This research focusses on the impacts and problems occurring with the designation and implementation of the buffer zones surrounding Natura 2000 areas. The implementation of buffer zones has an effect on farmlands and might cause changes in business operations of the farms. What the effects really are, and in which intensity they occur is still unclear and unknown. Although this research focusses only on one case there are often similar issues among different areas in regard to Natura 2000 policy (Kiwa Water Research & EGG-consult, 2007) and therefore it is important to research this topic.

# 1.3 Research objectives and research questions

As described above there are unclarities with the introduction and designation of the buffer zones to protect the Natura 2000 area from degradation. It is not clear how buffer zones should look like, and how they are implemented and the ideas about buffer zone might differ from person to person. Therefore the aim of this study is twofold, in the first place the aim is to find out how buffer zones are defined in official and unofficial context and in the second place what the impacts of the implementation of buffer zones are for the different actors who are involved. There will be a focus on the agricultural sector, since in the Netherlands Natura 2000 is often surrounded by farmlands and thus farmers are often involved by Natura 2000. To reach this goal during the research a case study will be executed in one nature area; "Het Boetelerveld". To meet the aim of this study the following objectives are designed;

- Find out how buffer zones are perceived among different actors.
- Discover what the impact is of the buffer zones on different actors involved with Natura 2000;
- Discover how people deal with the impacts caused by the buffer zones.

To operationalize the objectives of this study there is a main research question designed which is supported by sub research questions. The main research question is: how does a buffer zone look like and what is the impact of a buffer zone to protect Natura 2000 areas? The main research

question is divided by sub research questions to make it easier to handle. The sub research questions are:

- How do buffer zones look like on paper and in practice?
- What impact do buffer zones have on different actors?
- How are the actors dealing with the impacts of the buffer zones?

# 1.4 Outline of the thesis report

This thesis report already has started with the introduction above, where the problem which is investigated for this research is described. This is followed by a theoretical chapter, where the theories are discussed which underpins the research. This chapter is the theoretical background of this thesis, and the theories of multi-level governance, framing and the practice based approach are discussed here. The third chapter describes which methods are used for executing the research and it gives an introduction to the case area. Chapter four is meant to give an overview of the implementation of Natura 2000 and the buffer zones, which in theoretical perspective is multi-level governance focused. Also the process of implementation within the case area is discussed in chapter four. Chapter five is more focussed on the theories of framing and practice based approach, and will discuss the frames and practices of the farmers. Chapter 4 and 5 together contains the results of the research and thus are the basis for the discussion and conclusion of this thesis research, which will be presented in chapter 6 and chapter 7 of this report.

# 2. Theoretical framework

In this research there will be investigated how policy made by the European Union is dealt with on local level. Therefore there will be looked at different theories, there will be looked at the theories of multi-level governance and legitimacy, interpretive policy analysis and framing. Multi-level governance is important for this research since it gives insight on how European policy is formed, how the implementation of this policy goes is partly depended of the legitimate power of the European Union. Framing plays an important role in making clear the different views people might have on a certain subject and interpretative policy analysis focuses on the different interpretations of policy.

#### 2.1 Multi-level governance

There are different types of governance discussed in literature (Hajer, et al., 2004). In general, governance can be described as "the intentional regulation of social relationships and the underlying conflicts by reliable and durable means and institutions, instead of the direct use of power and violence" (Jachtenfuchs, 2001, p. 246). Rosenau (1992) defines governance as more an "encompassing phenomenon than government. It embraces governmental institutions, but it also subsumes informal, non-governmental mechanisms whereby those persons and organisation within its purview move ahead, satisfy their needs and fulfil their wants" (Rosenau 1992 in Jordan 2001, p. 1999). These definitions show that governance is about that governments work together with other actors to fulfil the task a government has. With the appearance of governance the state was not seen as the ruler which stands above the society any more, but more as part of the society.

With the introduction of the European Union multi-level governance started to appear in the literature (Jordan, 2001), because the European Union was different from the governance already existed at that time. Multi-level governance is the challenging approach to explain the functioning of the European Union (Eckerberg & Joas, 2004). Within multi-level governance policy making influence are shared across multiple levels of government, these policies are made with participation of the nation states but the nation state itself loses control to the supranational institutions (Hooghe & Marks, 2001). According to (Marks, et al., 1996) multi-level governance consists of three different elements. The first one is that decision making competencies are shared by actors at different levels, instead of one person. In the European Union the European Commission, the European court and the European parliament have influence in policy making, next to that you also have the state executives of the European Union's membership countries which plays an important role in policy making. All these actors cannot make policy alone by themselves, they need each other to make a valid policy. The second element of multi-level governance is that there is a loss of control for the individual states. They have to follow the policy made by the higher level of government (in this case the European Union). This can have positive and negative effects on the individual state, but overall the average benefit of all the different policies, should have zero-sum character for the individual states. The last and third element of multi-level governance is that there are subnational actors which operate in both national and supranational arenas. Therefore complex interrelationships in domestic politics are not limit to the nation state, but extent to the European level. There is no real distinction between domestic and international politics anymore. As you can see from these three elements in multi-level governance there are many people which have influence in shaping the policy. Next to all

the individual member states there are also other actors involved in policy making at European level, such as NGOs.

Sometimes there are distinctions made between vertical multi-level governance and horizontal multi-level governance. With vertical multi-level governance is meant the movement of political power from trans-national levels of government down towards local communities (Eckerberg & Joas, 2004). In horizontal multi-level governance there is shift of responsibilities from the governments towards other parties, such as NGOs or farmers. This happens in all levels of governments, thus it happens on supranational level but also on local level (Eckerberg & Joas, 2004). In this research there will be looked both at vertical and horizontal multi-level governance since the aim is to find out how locals deal with policy made at supra-national level. Horizontal multi-level government is integrated in this study, because in the environmental policy on local level in some cases the responsibilities of executing the policy lies by for example the farmers instead of the government itself.

# 2.1.1 Legitimacy and local implementation

The implementation of supranational policies is no longer only theoretical but also has become practical (Eckerberg & Joas, 2004). The policies made at European level have to be implemented by the European member states and will have impact on the local actors. If people accept these impacts depends on the legitimacy of the European Union. Political Legitimacy can be described as acceptance of authority (Rothstein, 2009). Whether the European Union itself really is legitimate is hotly debated in literature (Schmidt, 2013). Within the European Union it is important the European Union has legitimacy from his member states (Cmakalová & Rolenc, 2012). Without legitimacy the policies designed will not be executed. The policies designed in the European Union and executed by the nation states have influence on the legitimacy of the state governments (Loveless & Rohrschneider, 2011) (Rothstein, 2009). Since state governments have to execute the policy and inhabitants of the states will not see clear division which rules comes from the European Union and which from their own state (Loveless & Rohrschneider, 2011), the people will hold the state responsible for the rules. Legitimacy is needed to be able to rule as government and to really make your policies happen. Within multi-level governance policies are created through the means of different levels of governments. However, to execute the policy the European Union needs the legitimate power from his member states to make the policy happen (Neyer, 2010) since they are the ones who are responsible for executing the research. Whether the policy really is executed depends on the legitimate power of the government of the member states. So there are different levels of legitimacy in policy created through the means of multi-level governance.

There are certain factors which influence the legitimacy of the European Union among inhabitants of the different member states. The European Union is said to be a democratic body, however only the European Parliament is directly chosen by the people itself, while the European parliament is only one of the four major actors in the European policy making process (Marovcsik, 2002). This in combination with different backgrounds of member states leads to that a lot of people look at the European Union with scepticism (Marovcsik, 2002). This sceptical view on the European Union by the people influences also the view of the policy which is created by the European Union. This influences the legitimacy of European policy among people affected by the policy.

The implementation of multi-level governance has challenges with integration among different land users (Keskitalo & Pettersson, 2012). Keskitalo & Pettersson (2012) describes in their study about the Water Frame Directive that the nation states still have a lot of influence on how they will execute the European policy. To be able to implement Natura 2000 policy addition and adaptations of other already existing institutions had to be done in the member states (Beunen, et al., 2013). There are overlapping authorities which have to deal with the implementation of the policy (Keskitalo & Pettersson, 2012). The implementation of Natura 2000 policy is hard for a lot of member states and the opposition against Natura 2000 is growing (Beunen, et al., 2013). Thus the implementation of supranational policy is a difficult process, which can lead to very difficult local situations.

The theory of multi-level governance helps to understand about the ideas how the policies on supranational level are designed. These polices might work out differently than expected on local level, where the people have to deal with it. The buffer zones are part of Natura 2000 and Natura 2000 policy is created at European level together with different actors. It is not made by one ruling government but together with different actors which is the basis for governance (Jachtenfuchs, 2001). Governance in this research is seen as part of multi-level governance, since the implementation of the buffer zones is done by different parties and actors and responsibilities also shift from different parties and levels. Policy making done by different actors is seen as governance, in this case these actors are from different levels which fits in the concept of multi-level governance. However, multi-level governance is not the only theory to study the impact of policies on local level. In next part of this chapter framing and the interpretative policy analysis will be discussed.

# 2.2 Interpretative policy analysis and framing

Different people have different interpretations of the same concept, this also applies to policy documents. These various interpretations of policy documents affect the implementation of policy (Yanow, 1993). The impact of implementation of policy might have different meanings for people. Interpretative policy research is an approach to study what these meanings might be (Hendriks, 2007). Interpretative policy research tries to unravel what a policy event means in human and historical context (Hendriks, 2007) (Yanow, 1993).

According to Yanow (1993) in policy research we need to look beyond the capacity of language and broaden our focus. Including symbolic objects and symbolic acts of the implementing agency is also important (Yanow, 1993). Different interpretations of policy might slow down and impede the policy implementation. It is impossible to analyse objectively the meanings of different actors about a policy, therefore the interpretation is part of researchers job (Yanow, 1993). Hendriks (2007) points out that interpretative research sees meaning in the underlying frames and assumptions of people and that there is meaning in actions and texts. It is important to find these underlying frames to be able to discover what the impact is of the implementation of the buffer zones.

An interpretative approach is especially useful when a policy is seen as failed (Yanow, 1993). When different analytical and "objective" researches show that a policy not does work out, it is important to know why it did not work. It is important to focus on the interpretation of the actors to

analyse the multiple meaning of policy (Yanow, 1993). Thus it is important to broaden the policy research and also focus on the frames and meanings people have.

As described above in the theory of multi-level governance, European policy goes through a lot of different layers of government. These layers consist of different people, which all have their own interpretation of the policy. This influences the how in the end the policy will look like and how it will work out in practice.

An essential role in how something works out in practice starts with framing of the concept, framing is been seen as influential in conflict research (Dewulf, et al., 2005) (Dewulf, et al., 2009). There are large varieties of approaches to framing (Dewulf, et al., 2005), in general framing is about how people make their own construct of reality, influenced by their own values, norms, objectives, interest, convictions, knowledge and history (Bommel & Aarts, 2011) (Dewulf, et al., 2005) (Aarts & Woerkum, 2005). This is also what happens in this research case, people making their own construct of reality based on their own opinions and views creating conflict and misunderstandings between parties. When people have different frames conflicts might occur, since the different parties think differently about the same concept. On the other hand, when there is understanding of different parties about the different frames they might accept each other and try to find a solution together. The frames people have integrate past experiences, present and their expectations and goals (Aarts & Woerkum, 2005). Framing is used to understand and be able to see the different realities people have (Aarts & Woerkum, 2005).

Framing involves salience and selection of specific information (Entman, 1993) and frames are constructed in on going interaction between the different actors (Bommel & Aarts, 2011). Therefore frames are in general not static, it happens that frames on a specific topic might change over time. People might change their view on a topic for example because of new knowledge or happenings. Framing is an elaborate theory and there is a large variety of approaches to using framing in research (Dewulf, et al., 2005). However in general frames can be divided in two dimensions; a cognitive and an interaction view on framing (Dewulf, et al., 2005) (Aarts & Woerkum, 2005). The cognitive approaches are about how frames are stored and represented in memory and the interactional approaches are about the representation of frames in on going interaction, however they are still interrelated (Dewulf, et al., 2005). In this research is investigated how different actors represent the same issue, therefore the focus of this study lies on interactional approaches.

# 2.2.1 Interactional framing

As said above, interactional framing is about framing in on going interaction. When people apply frames in interaction they become active agents (Aarts & Woerkum, 2005, p. 230). Actors decide themselves what they are saying and how they describe reality in order to achieve their objectives in interaction. They might use different words, sentences and description depending on with whom they interact and in which way he or she wants to influence the other (Aarts & Woerkum, 2005). People can talk differently about the same issue depending on whom they are talking to and what he or she need from them (Dewulf & Bouwen, 2012). With exploring which frames different actors have and use in interaction, and why they use this frame, there might be contributed to better inter actor understanding which might lead to solving certain problems (Aarts & Woerkum, 2005). European

policy goes through a lot of different actors before it really is implemented as described in the multi-level governance theory, and before it is really implemented all these actors have put their own frame on the policy. A lot of interaction framing is happening in this policy making and implementing process. The interaction between actors is more important to create frames than their stored memory (Dewulf & Bouwen, 2012) and the different actors might have an influence on each other frames.

# 2.2.2 Frames in conflict

When actors have different frames this can lead to conflicts. They both think different about a certain issue and want different things to happen. This can lead to polarization of different actors and the interaction might escalate (Dewulf & Bouwen, 2012). If they want to solve the problem of having conflicting frames, actors should change their frames into the direction of related frames (Aarts & Woerkum, 2005). There are several ways to transform contradictory frames into more related frames, depending on the situation.

The first one is quite extreme, it is getting rid of one of the conflicting frames by *elimination* (Dewulf & Bouwen, 2012). This means that the conflicting frame is not taken into account and actually just will be ignored. This option is not always possible, for example if the direction of a company ignore the frames about a certain issue of the employees, the employees can go on a strike.

A second option to avoid polarization of frames is with the help of *mutual adaptation*. The differences between the frames will be divided and a compromise will be made. In this case the different frames get partly what they want, but for some part they will not agree with it (Dewulf & Bouwen, 2012). With a compromise none of the parties probably will be fully happy with the outcome.

The third option to deal with polarization is to integrate the conflicting frames into a new frame, which surpass the old frames. In this case there must be searched for a relation between the frames and this relation must be spotlighted, this can create new perspective. This way of dealing with polarization is called *reframing* (Dewulf & Bouwen, 2012).

A last option is to make a *connection* between the conflicting frames. In this way the frames itself will stay relatively intact. In this approach the different frames recognizes the differences between each other, however it tries to draw energy from it and give equal voice to the different positions. In this case the actors need to work in a more constructive way, they have to work together and find a solution together (Dewulf & Bouwen, 2012).

Above there are four different kind of approaches described on how to deal with conflicting frames. In the case in this research has also dealt with and is still dealing with conflicting frames. This is then also a main reason to incorporate framing as part of this research. Framing is about what someone is saying and how he or she sees the world. Different people can have different views on as in this case what the consequences are of designation of the buffer zone. This is due to people have different frames on certain topics and experience things differently. Framing will help to find the different frames people have which might be a source of the conflict.

Interpretative policy analysis in combination with framing will hopefully shed light on the different experiences and expectations stakeholders have in case of the introduction and designation of the buffer zones. With the help of these theories the implementation process en that the impact of buffer zones will be unravelled. How exactly these theories will help to unravel this will be explained in the conceptual framework.

#### 2.3 Conceptual framework

This part of the theory chapter describes the how this research will look like and how the theories are used. The core of this research is about the implementation and the impact of buffer zones designed to protect a Natura 2000 area. The impact of buffer zones is an effect of the implementation of the buffer zones, the impact are shaped by interaction and conflict between the different actors in the implementation process. In figure 2.1 the core of this research is shown in the middle of the picture, which is the block called buffer zones.

The theory of multi-level governance specially focusses on the implementation of the buffer zones in this research. The official definitions and rules of buffer zones can be found in policy documents about the area, these documents are product of actors who are involved and responsible in the implementation of the buffer zone. With the help of this theory the first research question can be answered; how do buffer zones look like on paper and in practice? The theory of framing and the interpretative policy analysis especially is important for answering research question 2; what impact do buffer zones have on different actors? These theories focus on the interaction and conflict in the process of designation of the buffer zones. The frames go back and forward and the impact might be framed in a way that it influences the implementation.

The effect of buffer zones can be negative or positive for different actors. In the end all actors involved have to deal with the buffer zones. How they deal with the buffer zones might differ per actor. This is also the third research question; how are the actors dealing with the impacts of the buffer zones? And this question can be answered when is know what the impact is and how the designation of the buffer zones happened. The frames which people have might also influence how they deal with the designation of the buffer zones. Depending on the impact of the buffer zones they are forced to adapt the usage of their lands. How people deal with this adaptation and impacts is also a question which needs to be answered in this research.

Before the buffer zone policy can be implemented it is created by the European Union and adapted by the member states. Whether this policy works out and how it works out depends on the legitimacy of the policy. That is why the arrow from Multi-level governance is going through legitimacy and ending in the core of the research, the implementation of buffer zones. How well the implantation of buffer zones is going depends of the legitimacy of the policy.

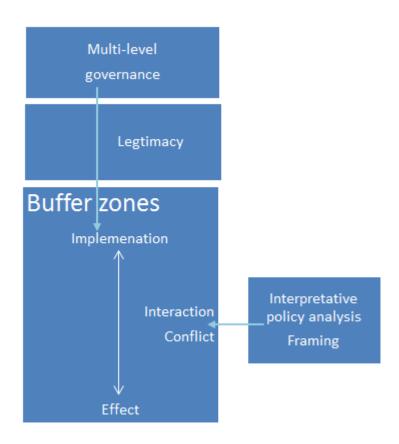


Figure 2.1: Conceptual framework of the research

# 3. Methodology

This research focusses on people who work and or live close to a Natura 2000 area and thus have to deal with the set of rules Natura 2000 and the buffer zones has to offer daily. With the designation of buffer zones and the lack of clarity about this, probably more and other impacts will follow. This research tries to discover how the buffer zones work and how the actors are dealing with the consequences of the buffer zones. This research is therefore partly a literature research, to discover how buffer zones are defined and used in already existing literature. The other part of the research consists of the gathering of new data about buffer zones. This new data is in-depth data since it is about opinions, thought, values etcetera. To get to this type of data information qualitative methods are used in this research and a case study is executed.

# 3.1 Case study

There is chosen for a case study design in this research. Yin (1994, p. 13) defines a case study as "an empirical inquiry that investigates a contemporary phenomenon within real-life context, especially when the boundaries between phenomenon and context are not clearly evident". So the first reason for choosing a case study design is that I want to investigate a phenomenon which occurs in the 'natural' setting. The case study is an instrument to gain insight into side-effects of the buffer zones inside the Natura 2000 policies on local level. A case study is helpful to understand the complexity of a situation in the case area (Stake, 1995). Moreover a case study is of good use when investigation a phenomenon where the researcher has little control over the events or when studying phenomena in real-life contexts (Yin, 1994). These conditions also applies to this research, this study tries to investigate a phenomenon in real-life context, where the researcher has no influence on the events. All these reasons together make a case study a good fit for this research.

With executing a case study you have to keep in mind that the outcomes are specific for this case, the outcomes cannot be generalized. However a pro for using the case study method is that is good for discovering what actually happens, when not much is known about the topic (Flyvbjerg, 2006). For this study a case area in the Netherlands is selected. The case is selected with the knowledge that the buffer zones have a quite big impact on

the area, so there will be some outcomes about which effects of buffer zones might occur. A short introduction into the case study area will be given.

# 3.1.1. General description of the case area "het Boetelerveld"

Het Boetelerveld is a 173 hectares big nature area in the province of Overijssel in the Netherlands. In figure 3.1 the location of het Boetelerveld within the Netherlands is showed. The main vegetation type in this area is wet heathlands, and this is the only place where this nature type still exists on this scale, in the Netherlands. There is a big



Figure 3.1: location of case study area (Ministerie van Economische zaken, 2013)

diversity of species in het Boetelerveld, both plant and animal species. The main threat for this area is desiccation due to lowering ground water levels for the purpose of farming. Next to the desiccation there are also threats from ammonia deposition in the area (Ministerie van Economische Zaken, 2013). The whole area of het Boetelerveld is managed and owned by only one organisation, het Landschap Overrijsel. The area is surrounded by different farms, which are mainly focussed on the production of milk. This means that the land is used to generate food for the cows, or to let the cows graze on the pastures of the farmer.

To be able to really understand the situation of het Boetelerveld you must go back in history. The surroundings of het Boetelerveld consist of agricultural lands, see also figure 3.2. In the late 1940s and early 1950s the area of het Boetelerveld was prepared to add to the agricultural lands. They already made the hydrology system to make the land suitable for agriculture, the bulldozers were about to start. However in 1953 Zeeland, a province in the south-west of the Netherlands suffered from huge flooding's and all the equipment such as bulldozers had to go to Zeeland to repair the dikes and to help rebuilding the area, also the bulldozers which were working in het Boetelerveld. When the work in Zeeland finally was done, the view of the government changed towards a more nature preserving view instead of only economic view, so it was not allowed anymore to prepare the area of het Boetelerveld for agriculture and it stayed as it was. This history about het Boetelerveld still has influences on the area till today. The area was ready-made for farming, which meant that water was extracted all the time. At the end of the 1960s the groundwater levels were getting really low in het Boetelerveld because of the drainage systems (Provincie Overijssel, 2009a). The decades after that small adjustments in the area were made to protect the area against desiccation, however to really protect the habitats of het Boetelerveld these small measures are not enough. So, when the area became part of Natura 2000 real measures needed to be taken to fulfil the goals of Natura 2000 and to be able to fulfil the goals of Natura 2000 the buffer zones were introduced.

# 3.1.2. Choice for the case

The choice for this case area was based on different reasons. One of the obvious reasons is, because het Boetelerveld is designated as Natura 2000 area. This is an important reason since when the area was not designated as Natura 2000 area the buffer zones would not be obligatory and thus the juridical pressure would not be there. Next to this het Boetelerveld is a nature area in the middle of agricultural lands, it is totally surrounded by farmers, this is shown in figure 3.2 where het Boetelerveld is easily recognisable between all the agricultural pastures. The presence of the Natura 2000 area in this agricultural environment causes conflicts which reached the local newspapers and therefore this would be an interesting case. At the moment of the execution of the research the agreement for that moment about the buffer zones had just been made. There are still monitoring researches going on about the impact of the different measures which will be taken to protect the Natura 2000 area. At the end of the monitoring the measures might change again. In sum, het Boetelerveld is an interesting case area, where a lot is happening between different parties and the process is still going on.



Figure 3.2: 'Het Boetelerveld'

#### 3.2 Methods

The data gathered in this research is based on different sources. There is a document research done and interviews are held with parties involved by the buffer zones in the case area. First there will be described how the respondents for the interviews were selected and after that how the data collection and analysis was done.

# 3.2.1 Selection of respondents

A main condition for the selection of the respondents was that they had to be involved in process of het Boetelerveld. First the bigger organisations were contacted and asked for willingness to be involved in this research. Their contact details could be found on their internet websites and except for one actor, they all respondent positively and were willing to participate in the research. The farmers who are involved by het Boetelerveld were harder to find, since they do not have their own websites and even though they might live close to het Boetelerveld this does not necessary mean that they have lands in the Buffer zones. So farmers were found through means of snowball sampling. This means that the respondents were asked if they know other people who are involved in this case and are willing to participate. All local farmers who participated in this research were found in this way.

All interviews were held at locations the respondents chose by themselves and actually this was always at their home for the farmers. Thus all the interviews with the farmers were held on their own farms, often in the kitchen of the farm house. The interviews with the other organisations were held at their offices. The idea behind doing at their private grounds is to create trust and hopefully they were not afraid to speak freely in their own house, while when in public areas or unknown areas for the respondent he or she might feel more uncomfortable to tell everything.

# 3.2.2 Data collection

As said above there are different sources of data in this research. One of the sources is already existing literature and documents. This data consist of the agreement of the measures, an analysis of the area, newspaper articles and scientific articles, see also table 3.1. With this data the "official" definition of the buffer zones will be obtained and also the implementation of Natura 2000 and the buffer zones can be described with this information, this data is mainly used as source for chapter four.

Table 3.1: Document research					
Dutch name	Translation	From	Information obtained		
-	A – Z of areas of biodiversity importance	UNEP-WCMC	How buffer zones are described in Natura 2000/EU		
Natura 2000 in Nederland Juridische ruimte, natuurdoelen en beheerplanprocessen	Natura 2000 in the Netherlands, juridical space, nature goals and management processes	Planbureau voor de leefomgeving / Environmental Assessment Agency	How buffer zones are used in Dutch policies		
Boetelerveld voorgangsrapportage kerndocument	Progress report from 2009	Province of Overijssel	What are the threats for het Boetelerveld		
Werkdocument Beheerplan Natura 2000 Boetelerveld	Work document management plan for het Boetelerveld from 2009	Province of Overijssel	First ideas of measures needed to be taken to protect it as a Natura 2000 area		
Herstelstrategie H7110B: Actieve hoogvenen (heideveentjes)	Research of Andre Jansen	Andre Jansen	Background information for decisions made to create the measures to conserve het Boetelerveld		
Natura 2000 Gebiedsanalyse voor de Programmatische Aanpak Stikstof (PAS) Boetelerveld	Area analysis of Boetelerveld from 2012	Province of Overijssel	This document describes the measures and how the buffer zones should look like specific for het Boetelerveld		
-	Local newspapers	Such as Tubantia and Salland magazine	Which parts of the interaction between stakeholders is publicly known		

The document research is mainly used to find the official definition of buffer zones and the official rules. This means that the documents are mainly used to answer the first part of the first research question: How do buffer zones look like on paper? Also the second research question can partly be answered, this is about the impact the buffer zone has on different actors. In the documents also some effects of the buffer zones and the measures are mentioned. This connects to the first part of the aim of the study as described in chapter 1, how buffer zones are defined in official context. With

the help of this document research these parts of the research will be covered. The document research will shed light on how the local policy is designed from a basis of the European policy, to go back to theory, the outcome of multi-level governance will be found in context of Natura 2000 policy.

The second and bigger part of data collection is consisting of interviews with the actors in the case areas. A big part of the affected parties are the farmers which have lands in the designated buffer zone, other parties involved are the province, municipality and others, in table 3.1 is shown which parties are interviewed and how they are involved in the process around het Boetelerveld. In total 13 interviews were given, of which 12 of these were only with one respondent. The interview with the Province of Overijssel was held with two respondents from the province. In appendix B there is a list with which interviews were held and in figure 3.1 the reasons for interviewing is given per party. The interviews were semi-structured open ended, so people were free to tell their own stories to gather richer data. Also the order of questions was different for each individual respondent, this in order to create a more fluently conversation. Therefore the interview guide might better be seen as a checklist instead of really a guide. The interviews were recorded to be able to make transcriptions, none of the respondents had problems with recording the interview after I explained why I would like to record it.

Table 3.2: Interviews		
Parties	Reason for interviewing	
Municipality of Raalte	The case area belongs to their grounds	
Province of Overijssel (group	Case area lies in the province of Overijssel, they are	
interview)	responsible for Natura 2000 according to the law	
Landschap Overijssel (2x)	Is the manager of het Boetelerveld	
Water board (Waterschap	Closely involved by making the agreement	
Groot Salland)		
Unie van bosgroepen	Agreement is heavenly based on their research	
LTO Salland	Organisation who represent the farmers in the	
	area	
6 different Farmers	Affected by the buffer zone	
Total: 12 individual interviews and 1 group interview		

With the help of the interviews the rest of the research questions will be answered. It will tell how the different actors think of buffer zones, this is corresponding to research question 1. There will also be additions found for research question 2; what impact do buffer zones have on different actors, the interviews will confirm, disprove and or supplement the effects and impacts mentioned in the documents. Thirdly, it will also answer the last research question, how the actors are dealing with the impacts of the buffer zones. This part of the research is mainly linked to framing theory, interpretative policy approach and to legitimacy. Through means of the interview the different frames which the different stakeholders have about buffer zones will be discovered. How they deal with the buffer zones will tell us something about the legitimacy of the European policy. However before there can be drawn conclusions from the data it must be coded and analysed.

### 3.2.3 Data coding and analysis

To start analysing the data, the recordings were used to make transcriptions of the interviews. These transcriptions will be analysed. The analysing of interview data can be done in different ways; thematic analysis; conversation analysis or a combination of both (Roulston, 2001). In conversation analysis is looked how a person interact to with other persons. In thematic analysis it is about what the respondent has said and not about the interaction between different persons (Roulston, 2001). Therefore in this research a thematic analysis strategy will be used, because it is about the meanings, opinions and norms from the interviewee. The transcriptions which belongs to thematic analysis are quite simple, just literally transcribe what the respondent is saying without all the pauses and coughing, it is just about the words the respondent uses to answer the questions and describes the phenomena (Roulston, 2001).

After the transcriptions were done Atlas.ti was used as program to code, analyse and interpret the transcriptions. With Atlas.ti different codes can be given to specific parts of texts and in the end you can easily switch between codes and interviews. The coding was done twice, the first time everything which looked interesting or important was given a specific code. This creates a huge amount of data with interesting facts and important points. To create an overview in this pile of data I made families with different codes. In total there were 31 different codes and from these codes 7 different families were created. The families were:

- Buffer zone (definitions and miscellaneous)
- Feelings
- Effects/consequences of buffer zones
- Natura 2000
- Problems (of buffer zones and Natura 2000)
- Process (of implementing buffer zones and Natura 2000)
- Responsibility (for executing and enforcement of policy)

As example the family process consist of the codes buffer zone process and the code Natura 2000 process, this is a small family where only two different codes were put together. This created a better overview, and the data is more accessible, it is easier to find the quotes you are looking for.

However, to be sure to be able to answer the research questions, I coded the transcriptions a second time. This time I used a more strict approach and coded just quotes which directly answered research questions. With this approach the amount quotations decreased a lot. Although you can say that the second time might be enough to answer the research question it is not. The first, extensive, part of coding is important for the research to create background information and this data will help to interpret the data in a good way. Without the first coding, data interpretations and meanings are difficult to unravel and therefore it is really important in this research which consists of interpretation and meanings of stakeholders.

Quotes from the interviews are used for answering the research questions, next to this they are used to set as example, underpin findings or give extra or background information. Since the interviews were conducted confidential the farmers are numbered from 1 to 6. In this way quotes from the same farmer can be recognised, while at the same time the farmer stays anonymous.

### 3.3 Ethics, validity and reliability

During the interviews sensitive topics might have been discussed with the participants. Therefore it was really important to create confidence between the participant and the interviewer. One obvious measure which is taken is that there will be no real names used in the report of the research, however it might be important what the organisation and the rank is of the person. Next to this there was asked before every interview if the interviewee agrees upon recording the interview. Before the interview starts the purpose of the research and therefore the purpose of the interview was made clear towards the participant, so he or she knew what to expect. If the participants want he or she could receive the transcription of the interview to approve before further analysis.

Another issue in doing research is the reliability of the research. Reliability means whether the research is replicable (Golafshani, 2003). Especially in quantitative research reliability is important, in qualitative research the outcomes are highly dependent on the respondents and thus reliability is harder to get (Golafshani, 2003). When doing the same qualitative research twice but with different respondents the outcome may differ, although you have used the exact same interview guide and questions. More important in qualitative research is validity: whether the right methods are used for executing the research (Golafshani, 2003). When the right method is used, the conclusions are trustworthy. This study wants to gather in depth data of a problem which is not well research yet and therefore there is chosen for interviews with actors in a case study. This seems to be a good method to unravel the unknown. The aim of the study is to discover the impacts of the designation of the buffer zones and therefore the people itself who have to deal with the impacts of the buffer zones are asked for their experiences and thoughts about the buffer zones.

# 4. Implementation of the buffer zone

This is the first chapter of the two results chapters. This chapter is about Natura 2000 and buffer zones in general, how they are designed and how the implementation happened in het Boetelerveld. Basically this chapter is about the facts, what really happened and the "official" definitions of buffer zones, and the "official" rules. The results in this chapter are generally based on the theory of multilevel governance and legitimacy which are discussed in in chapter 2. The other theories discussed in chapter 2 are the basis for the results in chapter 5. Chapter 5 is about the different views of actors about the buffer zones, what the buffer zones means for their everyday lives and how they deal with the impacts of the buffer zones. Chapter 4 is mainly based on the document research, while chapter 5 is in particular based on the interviews which were held with the actors.

# 4.1 Buffer zones in Europe and the Netherlands

In Natura 2000 policy documents buffer zones are referred to as "areas created to enhance the protection of a conservation area, often peripheral to it, inside or outside" (UNEP-WCMC, 2010). Buffer zones are no sites of biodiversity itself, but the buffer zones help to reach higher biodiversity in close by areas. During the creation of buffer zones 5 different aspects must be taken into account; size; ecology; economy; legislation and social and institutional depending on the conditions.

Therefore a wide diversity can be observed within different buffer zones (UNEP-WCMC, 2010). In Natura 2000 policy, some countries propose large Natura 2000 areas, wherein the buffer zone is included. Other countries propose just the core area as Natura 2000 area, and they add the buffer zone outside the Natura 2000 area if necessary (European Commission, 2013). How and where to use the buffer zones is not clearly stated in the policy documents of Natura 2000.

In the Netherlands the purpose for buffer zones is also twofold; both for nature conservation and economic development (Haan & Meijenfeldt, 2012). There is one policy in the Netherlands which is very clear about buffer zones. This is the law ammonia and husbandry (wet ammoniak en veehouderij) wherein is stated in article 4 that in an area of 250 meters around a vulnerable nature area is used as buffer zone, in this area there are no animal shelters allowed, this only applies for non-existing animal shelters (Ministerie Infrastructuur en Milieu, 2013) (Backes, et al., 2011a). Thus if there is already an animal shelter standing in these 250 meter it still can be used for husbandry. The restriction of the animal shelters is to protect vulnerable nature areas, such as Natura 2000 areas, against deposition of ammonia. However, ammonia is not the only threat for nature areas in agricultural environments, also desiccation of the ground is a serious threat for a nature area, though there is nothing said about hydrological buffer zones in state policies to protect vulnerable nature areas. While the term buffer zone is used in one law in the Netherlands an official definition of the term buffer zone in the Netherlands could not be found. The term is just used as a name for an area with limitations to protect a nature area.

To reach the Natura 2000 goals in the Netherlands the Programmatic Approach Nitrogen (PAS) is introduced for Natura 2000 areas, the aim of this program is also twofold, namely; to secure the achievement of the Natura 2000 goals as well to secure capacity for economic development. Every Natura 2000 area has his own PAS document which exemplifies the measures which need to be

taken. Also for the het Boetelerveld there is a PAS document which describes the measures needed to protect het Boetelerveld as a Natura 2000 area.

# 4.1.1 Buffer zones in het Boetelerveld

At the moment Natura 2000 started to appear in the Netherlands, it was immediately clear for nature organisations that het Boetelerveld should be part of Natura 2000. In 2006 it got preliminary submitted to Natura 2000 and in April 2013 it got officially accepted as Natura 2000 area under the regime of the habitat directive (Dijksma, 2013). Nature areas under the regime of Natura 2000 are forced to counter any ecological decay. In the Netherlands officially the provinces are responsible for executing and enforcing Natura 2000 policy. Due to the preparations done in the 1950s, see chapter 3.1.1, the nature value in het Boetelerveld is still decaying. The water is still being drained and species are disappearing in het Boetelerveld. To protect het Boetelerveld from further decaying external and internal measures needs to be taken. The internal measures are closing the water ditches and cutting trees to reduce evaporation, these internal measures were taken care of in the summer of 2013. To protect the farmlands from the effects of these measures a small zone of 100 meter width within het Boetelerveld is excluded, but will be done in a later stage. The external measures zone will become the buffer zone this research is about.

One thing that has become clear is that buffer zones are context specific. What is possible in one case might be impossible in another case. The same applies for het Boetelerveld, the buffer zone is custom made for this specific area. The agreement, as it is at the moment, is still not totally clear about what is allowed and what not, it depends on a monitoring research which is executed during the coming three years.

For het Boetelerveld the measures which need to be taken are heavenly based on the research executed by the Unie van Bosgroepen. The PAS describes what should happen inside and outside the area of het Boetelerveld. Therefore the PAS also can give us the "official" definition of buffer zones. However a clear definition of a buffer zone is not given. The closest description which is found in the PAS analysis is as follows:

"The designation of lands to the south, east and north are necessary for hydrological recovery. These zones can be seen as hydrological buffer." (Haan & Meijenfeldt, 2012, p. 37)

In general in the PAS they are talking about the external measures which will be taken, instead of buffer zones which are used in this research. Buffer zones then can be seen as zones which are affected by the measures taken to fulfil the Natura 2000 goals.

Table 4.1: official definitions of buffer zones					
	European Union	Netherlands	Boetelerveld		
Definition	Areas created to enhance the protection of a conservation area, often peripheral to it, inside or outside	-	Lands outside het Boetelerveld itself necessary for recovery of het Boetelerveld		
Purpose	Maintain or increase biodiversity in neighbouring areas	nature conservation and economic development	Stop decay of habitats in het Boetelerveld		

The official definitions of buffer zones differ at different levels. At European level a buffer zone is described more abstract and is seen as something to protect the nature and generate high biodiversity. While the Netherlands do not describe buffer zones, only a purpose, where also economic development next to nature conservation is important. When looking at local level, buffer zones are defined specific for that area and are defined in order to protect nature, in table 4.1 there is an overview given of the definition of buffer zones and its purpose on different levels. Naturally, different actors have different definitions and frames of buffer zones, these will be discussed in chapter 5.

#### 4.2 The buffer zone designation process

At the moment it became clear that het Boetelerveld would be part of Natura 2000, it was directly clear that only the area of het Boetelerveld would not be enough to fulfil the goals of the Natura 2000 policy. From the start on ideas about external measures were introduced, on how to reach the goals of Natura 2000 in het Boetelerveld. For the people who are and were involved in the process there is no real distinction between the process of designating het Boetelerveld as Natura 2000 and the process of designating the buffer zones. Both processes are really interwoven for the different actors. The buffer zones are really seen as part of Natura 2000 policy. The whole process from assigning Natura 2000 till the designation of the buffer zone has been a struggle between the actors. Although at a certain point with the official assignation of het Boetelerveld as Natura 2000 area, the process still was frustrated by different actors.

"Boetelerveld is a very difficult project, I think it runs already for almost 10 years" (LTO Salland, June 10<sup>th</sup> 2013)

"Landschap Overijssel and the farmers, or LTO, have been quite opposite" (Employee of the Water board, July 10<sup>th</sup> 2012)

There were all different types of committees made with different actors such as, a management committee, steering committee and advisory committee to design the buffer zones. These little groups were established to create a plan with the input of all the different actors. At that moment also a research was executed to find out what measures must be taken to prevent het Boetelerveld from degradation. This research concluded that there had to be zones of 1,5 km surrounding het Boetelerveld were drainage must be limited (Provincie Overijssel, 2009b). Socially this was unacceptable, since that means that in a radius of 1,5 km around het Boetelerveld all farmers would be restricted in the usage of their lands. At that time the negotiations within the little groups of actors did not went that well, they were in a fight and were not willing to talk and listen to each other anymore.

"There was a steering committee Boetelerveld. And that is completely folded apart, it did not go well." (LTO Salland, June  $10^{th}$  2013)

So basically nothing happened for a while, as one of the interviewees pointed out:

"I believe I started to work here in 2009 and the discussion was already there. Actually in the four years I have worked here not much has happened" (Employee of Municipality of Raalte, June 18<sup>th</sup> 2013)

Until about a year ago, when Landschap Overijssel asked the Unie van Bosgroepen to carry out a research. During this research the researcher went in the field and investigated the different soil layers in het Boetelerveld, he found out that the ecological processes were based on very local differences. The outcome of this research was that there were possibilities to reach the goals of Natura 2000 if there are both internal and external measures will be taken. As said above, within het Boetelerveld there is a border zone of 100 meters, were no measures will be taken. This is because farmers were afraid that these internal measures meant that their lands will be affected by for example higher ground water levels, so they asked via the LTO, the farmers' organisation, the Waterboard for their opinion. The Waterboard concluded that farmers would be affected by the internal measures, but when the internal measures excluded the 100 meters next to the border, the farmers would be safe. However when the external measures are executed, the last 100 meters of the internal measures will be taken as well (Haan & Meijenfeldt, 2012). The external measures as the Unie van Bosgroepen suggested, are the buffer zones as they are now, however the fine-tuning of the measures is still in process. A monitoring research is executed next three years to set the specific measures which need to be taken in the buffer zones. In December 2012 an area analysis with all the internal and external measures was published, which thus also describes the buffer zones (Haan & Meijenfeldt, 2012).

Local newspapers published few things about the designation process of buffer zones surrounding het Boetelerveld. The newspapers (Tubantia and Salland magazine) claim that despite

the agreement farmers are still not happy with the buffer zone. They claiming that it is still uncertain what is going to happen and that the agreement is too focused on nature conservation. Farmers doubt that the interests of agriculture are well represented in the agreement. According to them the problems which occur with the implementation of the buffer zones in the agricultural sector are not taken into account (Bouhuijzen, 2013).

#### 4.3 The rules in het Boetelerveld

The external measures which will be taken would result in the buffer zones surrounding het Boetelerveld. These measures will cover 120,88 hectares of land, outside of designated Natura 2000 area het Boetelerveld. A map where the buffer zones are planned to be is shown in figure 4.2. The pink part in this figure is het Boetelerveld itself, the purple part is the zone where external measures will be taken: the buffer zone. At the moment the buffer zone is still owned and used by farmers. In this section the next research question is answered: How does the buffer zone look like, what is allowed and what is not allowed?

In this case the buffer zone is divided in different parts where there are different measures taken, depending on soil type and ground water flows. The ground water flows from East, South-East into het Boetelerveld, as shown in figure 4.1. This means that the measures on the East side of het Boetelerveld differ from the measures on the North and South side. The water flow is also the reason that there is no buffer zone at all on the west side of het Boetelerveld, because these grounds do not have any influence on het Boetelerveld. Basically the measures which are taken can be divided into two groups;

- improve water quantity or;
- decreasing nitrogen influences (Haan & Meijenfeldt, 2012).

To improve water quantity especially drainage systems are reduced. Water ditches are made less deep or are even closed. This is especially what happens in the area south of het Boetelerveld, marked with a 1 in figure 4.2. In the areas North and East of het Boetelerveld next to improving water quantity also water quality must be improved, this is done by reducing nitrogen. Thus in these areas next to reducing drainage systems, there are also restrictions in the usage of fertilizers. In figure 4.2 these areas are marked with a 2. How far these restrictions go depends on the monitoring research which is executed at the moment. They are speaking of balanced fertilization, which means

in theory that the farmer puts just enough fertilizers on his land that it is all taken in to the plants, so nothing of the fertilizer reaches the ground water and has the chance to pollute het Boetelerveld. These areas are meant to stay in agricultural usage.

There is also one area, marked with stars in figure 4.2, where the threats from the agriculture sector are anticipatory too big for het Boetelerveld. These land needs to be acquired and designed as nature areas, however they will



Figure 4.1: Ground water flows

not be added to the Natura 2000 area. In this area the original surface topography must be restored, since close to the border in het Boetelerveld there is very special and vulnerable vegetation. By acquiring these lands the fen meadows (Cirsio dissecti-Molinietum) in the north-east of het Boetelerveld are better protected and probably will increase in surface area. Next to this two special plants can be found here namely; bog asphodel (Narthecium ossifragum) and bog myrtle (Myrica gale). By restoring these lands maximum habitat protection will be given to these species and land type. The precise amount of hectares which will be acquired is not known yet, it depends on how big the agricultural influence is which has to be found out by the monitoring research.

These measures are taken to conserve the Natura 2000 area, if a farmer is breaking the rules his license will be withdrawn. In the Netherlands every farmer has a license which states, in this case, how many cows he can have on his farm and how much fertilizer he can deposit. If the farmer exceed this amount than his license will be withdrawn and technically he is not allowed to have any cows anymore or do any business on his farm. For the farmer this means that he has to quit his job.

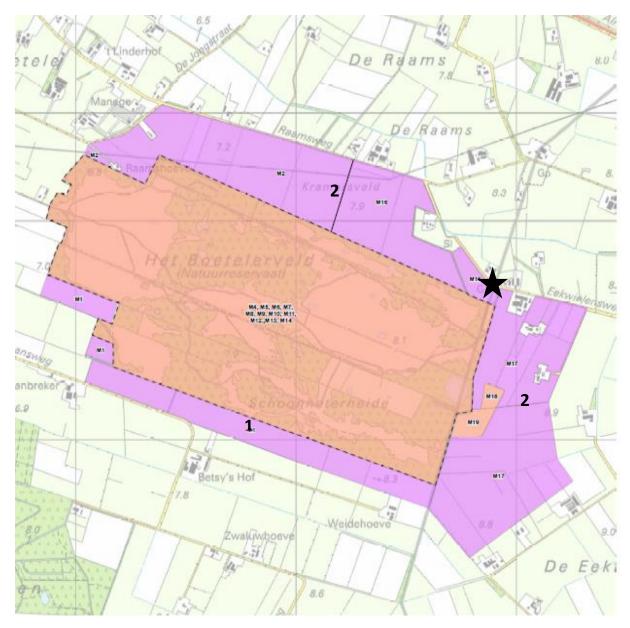


Figure 4.2: Buffer zone surrounding het Boetelerveld (source: ( (Haan & Meijenfeldt, 2012))

#### 4.3.1 The effects of the Buffer zone in het Boetelerveld

There are positive and negative effects of the introduction of the buffer zone. The positive effects are mainly nature based. The introduction of the buffer zones will lead to preservation and improvement of quality and quantity of vulnerable and special vegetation, habitats, flora and fauna. These are the desired effects of the buffer zone, and actually is the cause for designation of the buffer zones.

However there are also effects where not everyone is happy about. By taking the measures ground water levels rises, which results in farm lands which are too moist to manage it in the most productive way for farmers. In spring, the ground water level will stay longer high and the farmer has to wait till late spring before he can go on the lands. Even the cows cannot graze on the lands, since they will trample everything if the lands are too moist which will ruin the pastures. The total year round production of food for the cows will be lower, which means farmers have to buy extra food. The lands where ground water rises and fertilization restrictions are introduced are even more affected, production will decrease immensely for the farmers, which might have really severe consequences for them.

"We are allowed to use the land, however the moisture level in the ground is higher which means we can enter the pastures later in spring to cultivate the land. The carrying capacity of the ground is insufficient, the machinery is too heavy. We have to wait till April, while we used to start in February. The harvest period is shorter because we have to wait longer before we can start the fertilization and thus the first harvest is later, next to this we can harvest less frequently.

(Farmer 5, June 10<sup>th</sup> 2013)

"These companies, which are more restricted in connection with fertilizations (...) Look, in this area it might be forbidden to use fertilizer, the water level rises, then those people, yes, they will have to quit their company." (Farmer 1, June 28<sup>th</sup> 2013)

Next to these kind direct effects there is also an indirect effect as a farmer pointed out. Grounds in this area become scarce, farmers with lands in the buffer zone will probably look for lands with no restrictions on it outside the buffer zone. This scarcity of lands will let ground prices rise, which is not good for the total attractiveness in this area. It becomes harder for farmers to buy extra grounds and thus to expand when needed. Consequently the buffer zones not only affect the farmers who are situated with lands in the buffer zone, but also farms that lie outside the buffer zones might be affected.

#### 4.4 Sub-conclusion

Het Boetelerveld is a nature area for about 5 decades now. Before it was assigned as nature there was already started to prepare the area for agriculture. The mark of this, in the form of water

ditches, is still visible and still has influence on the area by draining the water. When it was assigned as Natura 2000 area the area got strict nature goals, which led to awareness of the decay in the area. To reach the goals of Natura 2000 and preserve the nature in het Boetelerveld extra actions had to be taken. These actions are taken in the form of internal and external measures, these external measures can be seen as the buffer zones. The process to get to an agreement about the measures was long and difficult. Because of the past of het Boetelerveld the area has decayed for over 50 years and this need to be stopped under the force of Natura 2000. So the measures which need to be taken to guarantee a protected Boetelerveld have quite a big influence for surrounding farms. And still after years of discussing what to do, it is still not sure how strict the measures will be.

By assigning het Boetelerveld as Natura 2000 area it became part of European policy. This policy has his own strengths and weaknesses. In Natura 2000 policy it is not obligatory to assign buffer zones, it is obligatory to protect the nature area. If the nature area can be conserved without buffer zones then there is no problem. However in the Netherlands, and in this case, with a lot of influence from farmlands and depositions it is almost impossible to reduce the negative influences from outside the nature area so far that it has no impact anymore. In European policy there are no specific guidelines on the use of buffer zones, and the definition of buffer zones is really nature focused. Buffer zones in Dutch policy context are not defined. In the law ammonia and husbandry they are talking about a zone of 250 meters around a nature area with specific limitations in usage. When going down to local level a buffer zone is seen as an area which is needed to fulfil the goals of Natura 2000, to conserve the nature area. The term buffer zone is not used frequently in any policy documents and when used it is not really specified in what a buffer zone really is, there is just said what the restrictions are outside the protected nature area.

To get back to the theory, in the process of assigning Natura 2000 and the buffer zone you can see how multi-level governance works. The decision making and assigning of het Boetelerveld and the buffer zones was done in cooperation with different actors and on different levels. Natura 2000 is a policy which is created by the European Union, in the Netherlands assigned by the national government and enforced by the local government (the provinces). In this case the province together with other actors, such as municipalities and farmers tried to create a plan to fulfil the goals of Natura 2000. In the beginning with all the committees, this failed. However, after another research was executed, the different parties started to talk again and an agreement was made, with influence of different actors.

Also the signs of horizontal multi-level governance are clearly seen in this case. First the final responsibility lies at the province in the Netherlands. However the province lays responsibilities at other parties. In the case of het Boetelerveld, there are different parties with responsibilities. First Landschap Overijssel is responsible for managing het Boetelerveld and therefore also for executing the internal measures to improve the nature quality in het Boetelerveld. Next to that, the farmers have restrictions, which give them responsibilities as well. They are responsible for the nitrogen deposition in the area, and will be punished when the nitrogen deposition is too high. Of course the different actors have different views on these aspects, these will be discussed in chapter 5.

There were lot of troubles in the process of the designation and implementation of Natura 2000 and the Buffer zones in het Boetelerveld. Farmers were not pleased about the new status of het Boetelerveld and the supplementary rules. The farmers did not take it for granted, and started

protesting. This shows that the legitimacy of this policy is not really high. People tried to obstruct and stop the implantation of this policy, while if European had high legitimacy people would just have accepted the new rules.

## 5. Interaction, impact and conflict

Chapter 4 described the different ways buffer zones are defined in policy documents and how that is exposed in het Boetelerveld. In the real world everyone has his own idea of what is happening and if that is good or bad. In this chapter we are going to look at the different frames people have regarding the buffer zone and how they deal with assigning the buffer zones. This chapter is about het different actors and their views, therefore this chapter is heavenly based on the theory of framing. An important aspect in the interaction and conflict in this case is the different frames the actors have about buffer zones. Therefore this chapter will begin with describing these different definitions the actors have about the same topic.

#### 5.1 Different definitions

Buffer zones were described in different ways during the interviews. The actors had put different frames on the buffer zone. Here is really clear that the frames are the reality as the person sees it. He or she leaves sometimes certain parts out of his description, so it is most suitable for him or her. Generally the different definitions can be divided in two categories; nature focused definitions and problem focused definitions. The nature organisations see the buffer zone as areas to serve the nature area het Boetelerveld:

"It is called buffer areas and why are they called buffer areas? Because they are added from the PAS, not from the EHS<sup>1</sup>. Therefore the aim is not to create nature in these buffer areas, they are needed for the benefit of nature here inside the Natura 2000 area. Only you should probably take a lot of measures, so it almost becomes nature."

(Landschap Overijssel, June 18th 2013)

"The buffer zone is assigned to secure the nature, to guarantee it." (Landschap Overijssel, June 18<sup>th</sup> 2013)

Or as another employee of Landschap Overijssel stated:

"These are areas that in a sense more or less have to help optimizing the conditions within the nature area. They do not need to have their own natural function, at least the majority of them does not need it(...) the primary functions of these areas are that they help to achieve to provide the required spring groundwater table in the nature area."

(Landschap Overijssel, July 2<sup>nd</sup> 2013)

<sup>1</sup> EHS stands for national ecological network, it is a Dutch nature policy with the aim to connect different nature areas with each other and create a network of nature areas.

The interviewees put emphasizes on the fact that these areas are not meant to become nature. These areas are meant to serve the nature area next to it, but if it is not harmful it can still be used for agriculture, the lands become close to nature. They highlight that these buffer areas are assigned to serve the nature are, which has consequences for the usage of the lands. In the first quote it also becomes clear that people do not necessary see buffer zones coming from nature policy. He states that the buffer zone is introduced because of agricultural policy. Next to the nature organisation there are other actors who define buffer zones in way that they serve the nature area, they are especially focused on restoring the natural water table.

"The purpose of the buffer zones, in my view, is in particular in order to ensure (...) that you can achieve water tables as high as possible in early spring and stay high." (Water board, July 10<sup>th</sup> 2013)

"Well, these buffer zones are intended to ensure that in the winter and early spring, the hydrological system can work as it has worked before, and therefore retain the qualities of het Boetelerveld, and improve in quality again".

(Unie van Bosgroepen, July 1<sup>st</sup> 2013)

The definitions of buffer zones as in the quotes above are very clear and well-defined. However not everyone had such a clear definition and used buffer zones as a more vague concept. The organisations which were less explicit often had also other interests next to conserving nature in the area. They want to facilitate equally the nature and economic sector, where agriculture falls within the economic sector. This results in in definitions which were shallower in comparing with above definitions:

"Well, as I see them, they are areas surrounding the nature areas, whereby measures taken inside the nature area have effects on the surrounding areas. For example the moisture level of the grounds will become higher. Sometimes you have to take a number of measures outside the Natura 2000 area to get the desired circumstances inside the area. Yeah, that is how I see that area."

(Province of Overijssel, June 18<sup>th</sup> 2013)

"I really do not know if I would call it a buffer zone. Look, with a buffer zone I picture an area where nothing is allowed, that it really is the protection for the real nature area. But as for me, the agreement as it is now, it is mainly that you have some limitations".

(Municipality of Raalte, June 18<sup>th</sup> 2013)

They acknowledge that there are limitations on the surrounding lands, but that these limitations are not that big. The measures taken have not a big impact in the buffer zones. It is also notable that the Municipality of Raalte has not a clear definition of what a buffer zone is. Actually both governmental organisations do not think that the impacts will be that big, while Landschap Overijssel as nature area thinks that in some areas in the buffer zone the impact is too big to maintain the lands for agriculture. When looking at the owners of the lands in the buffer zones, the farmers, they agree in this case with the nature organisation, Landschap Overijssel, the farmers think that the buffer zones have huge impact on their lands. When asking for a definition of the buffer zone the often describe it as lands which are of no use anymore, they start talking about problems the buffer zones create for them.

```
Interviewer: "How would you define these zones?"
Respondent: "Ah well, you are not allowed to do anything qua agriculture, using less fertilization."
(Farmer 2, July 1<sup>st</sup> 2013)
```

"The buffer zones are grounds, where possibly effluence happens and there is modified management, I actually think there is no agriculture possible." (Farmer 3, July  $1^{\rm st}$  2013)

"These are areas from which nature organisations think they are needed to achieve the goals in het Boetelerveld or a nature area." (Farmer 4, June 10<sup>th</sup> 2013)

These citations show that the farmers define the buffer zone actually as a problem. They are not looking at what actually is happening, but just seeing the impacts it has for their farms, which of course is understandable since it will have big impact for some farmers. None of the farmers saw the buffer zone as something positive, for them it is an extra set of rules which needs to be taken into account in executing their jobs. As the quote from farmer 4 shows it is something added for protecting nature areas, and it belongs to nature organisations or policy. The farmers frame the buffer zone really as a problem and something which is inconvenient. They are afraid that they are not allowed to use their lands anymore in the way they used to do.

The difference in the description of buffer zones is quite big between the different actors. The professional organisations, such as Landschap Overijssel, the Water board and Unie van Bosgroepen have a really well-structured and well-defined definition. They thought about it, how to define these zones surrounding het Boetelerveld, how to give a short answer when someone asks them about it. It is notable that the governmental organisations had not a clear definition in their head. They want to stay friends with every one, the agricultural sector and the nature sector, which results in searching a definition which is not too nature focused in the eyes of the agricultural sector. They are in between a nature focused and a problem focused frame. Where farmers see a lot of

problems and restrictions appearing with the buffer zone, the governmental organisations have a less negative view and think that it is not that bad. Although big differences in defining the buffer zones, most actors had quite the same view on how the process went.

5.2 Interaction and conflict

As described in chapter 4.2, the process of designation of the buffer zone was a huge struggle. In this part there will be described how different actors feel about the process, what the interaction was and how this lead to conflicts. One thing the actors had in common is that they all experienced the process as difficult and long, although they have different views on why it was a difficult and long process. There are three important groups during the process; farmers; Landschap Overijssel as nature organisation and the governmental organisation, the province of Overijssel and the Municipality of Raalte. The other actors are mainly concerned in the process for their expertise, they do not have their own interest in the case.

"Especially in the last period we have tried to act as mediator in the process." (Water Board, July 10<sup>th</sup> 2013)

These three groups also had different frames as described in chapter 5.1. The farmers framed the buffer zones mainly as a problem while Landschap Overijssel see the buffer zones as an opportunity for the nature and the buffer zones are there to serve the nature. The governmental organisations have a frame which is a bit in between the farmers and Landschap Overijssel and that is also seen in the process, where they did not had a big voice, they stayed a bit in the background.

5.2.1 Farmers

Obviously the farmers do not like the idea of buffer zones surrounding het Boetelerveld, they are afraid that they will get restricted in the usage of their own land or even worse that they have to leave to make room for nature. In general the farmers are not fond of the Natura 2000 policy at all.

Interviewer: What do you think of Natura 2000? Respondent: It is just European hassle.

(Farmer 2, July 1<sup>st</sup> 2013)

This shows that the farmers in advance already have a negative attitude towards the buffer zones, since they are part of Natura 2000. They frame the buffer zones as a problem and as something unnecessary. This negative attitude frustrated the process in designing the buffer zones, next to this the farmers felt unheard at the beginning of the process:

42

"In the beginning they thought for a while that het Boetelerveld is theirs, we can do what we want with it, and this is how the farmers felt it. There was no consultation, one thing was said and another thing was done."

(Farmer 4, June 10<sup>th</sup> 2013)

This quote shows that the farmers were ignored in the beginning of the process or at least they felt like it. The farmers did not accept this way of handling by the other organisations and through the farmers' organisation LTO Salland they tried to get grip on the situation. LTO Salland started to infer the process and tried to get a heard opinion in it. However also LTO Salland felt that the process not went correctly. Without consultation buffer zones were designed and designated.

"Here, no-one ever had trouble with it, sale was on duty and there were no restrictions. Now this zone comes in the picture, all of a sudden fertilization is prohibited, at once, from one day to another. Men feels attacked with it. For example, we received a report from an agency about new buffer zones at the morning before the meeting. It is there at once."

(LTO Salland, June 10<sup>th</sup> 2013)

The farmers felt left out in the process, while it could have really big impacts on their lives and farms. They wanted to have a word in this process, but they felt unheard. So according to the farmers everything went not that well and nice. And also as said in chapter 4.3 the process got stuck and noone was talking to each other anymore. This situation is not beneficial for any of the parties so after a while conversation needs to go on, however the farmers lost their trust in the other parties.

"If you sit down with all parties at a table and talk to each other, you reach a lot more than in the process of het Boetelerveld, where everyone is stuck, no-one trusts each other, that is really difficult and in the end you achieve nothing." (LTO Salland, June 10<sup>th</sup> 2013)

In the end the talking and new insights of other researches leads to an agreement. The LTO Salland and some of the farmers are in general happy with the agreement. They think the agreement as it is now is a good solution with compromises for all parties. They know something has to happen, they are never going to like it, but with the measures as they are set now it is doable. The farmer organisation really put some effort in the agreement to make it better for the farmers in the area.

"I think the agreement is really good, all parties have their face in the same direction, even the ministry, the province Overijssel, Landschap Overijssel, the LTO, the

municipality and all face the same way and are searching for a solution on the same page. And that is the only way to achieve a solution in het Boetelerveld. They agree all with the plan to use the lands as farmlands and therefore give het Boetelerveld a chance."

(Farmer 4, June 10<sup>th</sup> 2013)

Although most of the farmers and the LTO Salland are quite happy with the agreement and think it is a good solution for the buffer zones, there are also some questions raised. Especially about the shape of the buffer zone, they think it is weird that for example houses are often not included in the buffer zone. Overall the farmers have the opinion that the buffer zones are overrated and unnecessary. They claim that they already manage their lands in a proper way.

"This zone is only meant for protection. When we can show that we farm in a proper way, keeping water table on the right level, where both nature and agriculture benefit from. Why do we need these zones then?
(LTO Salland, June 10<sup>th</sup> 2013)

In general the farmers are okay with the agreement at this moment, but there are also some farmers who still really do not like the buffer zones. They think the whole process is fake and still do not have any trust in the other parties. Or they still think that the measures are overrated and blame the nature organisation. Some of the farmers also have the feeling that the assigning of Natura 2000 is just to get subsidies from the government and the European Union. In general the trust among the farmers is not really big. The farmers still thinks that the buffer zones cause problems, and they see the buffer zone as trouble.

"We can reach the objectives for sure, but is it reviewed by the right persons, or are they prejudiced? That is something we cannot judge."

(Farmer 1, June 28<sup>th</sup> 2013)

"Actually I think there is no interaction at all, it is, simply put, pushed through your throat as you can see now. Last week at the meeting, there is simply said: we are going to designate the buffer zone, if in the future it seems that it can be smaller, it might become smaller (...) We have to trust that everything will turn out in a good way, but how it really is going to be? We do not know. (Farmer 3, July 7<sup>th</sup> 2013)

"I think the measures for the surrounding agriculture are too strict, in the past the Landschap Overijssel made mistakes by themselves in het Boetelerveld, they are going to restore that now. And that is difficult for me, because in principle we pay

together for it and then you get a big punishment, you can use less fertilization or something. And that is why I have difficulties with it."
(Farmer 6, July 1<sup>st</sup> 2013)

Another issue the farmers had difficulty with is the way information was spread, or actually was not spread. As also can be seen above in the quote from the LTO Salland, sometimes information was just given last-minute. Farmers themselves just got information through the LTO Salland. In general during the process the farmers felt unheard or forgotten. This gave them a bad attitude towards the other organisations. While the other organisations tried their best as well.

Especially in the early stages of the process the farmers had the idea that there was no interaction at all with them. The farmers had the feeling that they were forgotten in shaping the buffer zones. According to them there was a lack of interaction, and this was reason for them to start protesting, in the hope to be heard. These protests created conflicts between them and the nature organisations.

#### 5.2.2 Nature organisation

The concerned nature organisation is this case is Landschap Overijssel, who manages the whole Natura 2000 areas. They feel the responsibility of achieving the Natura 2000 goals, they are quite relaxed about it. Assigned as Natura 2000 means that it is impossible to ignore the associated goals. However they do not deny it was a difficult process with lot of obstacles to come together to an agreement. In the beginning of the process they had the feeling that the farmers just had the hope that het Boetelerveld would not be assigned as Natura 2000, which would have saved the farmers a lot of troubles.

"For a long time there was thought if het Boetelerveld would be assigned or not, so they did not had to take measures then." (Landschap Overijssel, June 18<sup>th</sup> 2013)

However, as we all know at the moment, het Boetelerveld was assigned as Natura 2000 and both external and internal measures need to be taken. Of course Landschap Overijssel was very happy about assigning het Boetelerveld as Natura 2000 area. It secured the position and quality of the nature area. They have the power now to really do something in het Boetelerveld to improve the quality of the nature over there.

"When the provisional designation of Natura 2000 was created it was very obvious for us that het Boetelerveld belonged to Natura 2000. We were very happy about that because it was a true recognition of the value of het Boetelerveld. And at the same time we saw a way to truly achieve the goals of preserving het Boetelerveld, because

it was clear that we could not reach that alone in our 180 hectares of het Boetelerveld."

(Landschap Overijssel, July 2<sup>nd</sup> 2013)

Although, of course Landschap Overijssel was very happy about the designation of het Boetelerveld as Natura 2000 area, they also knew that it would cause troubles for the farmers in the area. Where possible they are willing to help the farmers and are really not looking for any fights with farmers. Landschap Overijssel also thinks it is not nice for the farmers that they will become restricted in the usage of their own lands. And they are really open for suggestion how they can help.

"Our board says very clearly, we want to take the measures that are minimally necessary, to get maximum economic space. Well that is the motto we use." (Landschap Overijssel, June 18<sup>th</sup> 2013)

With the conflicting interests in the area surrounding het Boetelerveld it made the process of assigning the buffer zones very difficult. Landschap Overijssel encountered a lot of not happy farmers, which they had to deal with. Landschap Overijssel felt secure about the plans for the area, since they had the rules of Natura 2000 as backup, which needs to be fulfilled in one way or another. So overall in the process Landschap Overijssel was confident and did not had that much worries, this does not mean that they did not experienced the process as easy. It still was difficult process to convince farmers the measures are really necessary.

The frame of Landschap Overijssel was really nature focused and the buffer zones are there to serve the Natura 2000 area. In the process they were the opposite of the farmers, who just hoped that the buffer zones had the least restrictions as possible. Because of the strictness of Natura 2000 Landschap Overijssel knew that the buffer zones had to be implemented, thus for them there was no need to adapt their frame about buffer zones. Landschap Overijssel actual eliminated the frames of the farmers, since they were really sure about their own frame. This created conflict because the farmers actually were ignored. The interaction with other actors went quite well for the nature organisation. They were well-informed throughout the process and they could prepare for the implementation.

#### 5.2.3 Governmental organisations

The province of Overijssel has an important role in the designation of Natura 2000 and the protection of these areas since they are made responsible for Natura 2000 by the national government. During the process of assigning het Boetelerveld they need to keep an eye on all the interests in the area, they need to see the bigger picture. In the beginning of the process they experienced a lot of resistance of the farmers. But later on there was more a conversation, which had a good influence on the process. The province of Overijssel is also really open to any suggestion a farmer has to make the buffer zone more bearable for him. Although there are no excuses for not reaching the goals.

"We have the willingness, at the province, to have a discussion with the farmer. If he is able to and wants to manage this area than that is fine for us. But we want to judge on the goals."

(Province of Overijssel, June 18<sup>th</sup> 2013)

Not surprisingly also the municipality of Raalte described the process as difficult. During the process they tried to see the pros and cons of the measurements. They tried to act a bit as mediator, not picking a side. They both want to fulfil the economic interests and the nature interests. In the end they are quite happy with how it went, since there were not many law-suits or anything. The process was difficult but the actors were luckily not accusing each other in front of the judge.

"I think that our role as municipality is limited, it is more like we facilitate when necessary instead of doing it all by ourselves."

(Municipality of Raalte, June 18<sup>th</sup> 2013)

In general the governmental organisations are a bit in between the other non-governmental actors. In the end they are responsible for executing and retaining the goals of Natura 2000, but next to these nature goals they also need to be there for the economic sector. They have to find a way to discover the best policy for all the parties. They have to and want to create win-win situations and that is difficult. In what way you put it, people have to live with the consequences of the buffer zones and might be struggling with it every day.

The frames of the governmental organisations were a bit in between the farmers and the Landschap Overijssel. They tried to find a connection between the different frames to make everyone happy. The governmental organisations want to be there for both the economic and ecologic wishes of the different parties. This is also visible in the process, they did not choose a side but tried to stay in the middle. They are looking at both sides of the stories and try to make the best out of the situation for everyone. According to the farmers they failed in their interaction towards the agricultural sector. There was lack of interaction, which created uncertainty among the farmers, since for the farmers it was not clear what was going to happen.

## 5.3 Impact of buffer zones

That the buffer zones are going to be there next to het Boetelerveld is for sure. That the buffer zones have effect on the farms there is also for sure. But what the effects eventually will be and how big the effects are going to be is something which is not known at the moment. The farmers have to live in this uncertainty every day, however, farmers have a really realistic view on the whole situation. At the moment, when the effects are still not totally visible farmers are really relaxed and they try not to worry that much about it. Whenever the restrictions will be enforced they will start to look for a

way to adapt to that situation. They are not lying awake at night, thinking about something which is going to happen in the future.

"As long as it not 100% sure then there is nothing wrong (...) and when it comes you cannot change it, it is from the government and you are not able to stop that. You can raise objections, but that ends one day."

(Farmer 5, June 10<sup>th</sup> 2013)

Interviewer: "How do you cope with the uncertainty?"

Respondent: "Well, I sleep well." Interviewer: "You just wait?" Respondent: "Yes, yes indeed." (Farmer 3, July 7<sup>th</sup> 2013)

However the farmers are quite relaxed at the moment about the buffer zones, they foresee a lot of problems and doom scenarios. Of course, every farmer has his own problems, depending on the size of the farm and how big part of that is lying in the buffer zone. It depends on the own future goals of the farmer, if the farmer is willing to manage a farmland where there are restrictions or not. Some are willing to do that, but for others it does not fit in their operations.

In chapter 4.3.1 the effects of the designation of the buffer zones are described. Different organisations have a different attitude towards the effects of the buffer zone. In table 5.1 there is an overview given of the four most obvious and important effects of the buffer zone and the attitudes towards them from the farmers and Nature organisation. There is chosen just for these actors since they are the ones who have to deal with the effects. The two effects the nature organisations are positive about, the preservation of habitats and improvement of quality and quantity of the habitats are the cause of the first two effects; higher water levels and restriction of usage in fertilizers. The table makes clear that farmers do not dislike the improvement of nature, they just dislike that they are affected by it. The other way around, nature organisations do not necessarily need extra restrictions in usage of farmlands, they just want to secure that the nature is protected.

Table 5.1: Attitudes towards the effects of the buffer zone					
	Farmers	Nature organisation			
higher water table level on the	Negative	Neutral			
lands					
restriction of usage in fertilizer	Negative	Neutral			
Preservation of habitats, flora	Neutral	Positive			
and fauna					
improvement of quality and	Neutral	Positive			
quantity of vulnerable and					
special vegetation, habitats,					
flora and fauna					

In table 5.1 the first two effects might cause problems for the farmers and lead to change in practice that is why they are negative towards these effects. Farmers indicated that they had to change their operations because of the introduction of the buffer zone. Mainly because they lost a certain amount of food production from their own lands, which they now have to buy extra.

Some farmers will "lose" their so-called home plot, these are the pastures next to their stables and homes. When this happens they have a bigger problem, because they are not allowed anymore to let their cattle graze in these areas. You cannot learn cows to shit just across the border of the buffer zone. When this happens the farmer has problem and loss of income, since his cows must stay in the stable. When a farmer lets the cows graze outside for a certain number of days per year gets a premium on his milk from the milk producer. So this farmer does not only have less food production on his lands, but also have a loss on every litre milk he sells.

There is also another scenario of one farmer which has to make improvements in his stable to make increase the fire safety. To be able to adjust his stable to suite the rules he needs funds from a bank. However it is not sure what is really going to happen and what the effects will be of the buffer zone the bank says, we cannot give you a fund because we do not know what the exact rules will be in the future on your land and thus if you company would be profitable. This situation is really bad for the farm, because he cannot do anything. However this is an extreme example of a farmer who is really locked down because of the buffer zone, other farmers also have troubles when they want to expand their farm in the area. It is not sure what actually is going to happen and this locks up the whole area.

Although the designation of the buffer zones cause lot of troubles in the area, the LTO Salland is still fighting to get it is as good as possible for the farmers. With the monitoring research which is now going on they hope to show that fertilization used by the farmers has hardly any influence on het Boetelerveld.

"And here it is prohibited to use fertilizers. But we are going to do it anyway and we are going to demonstrate that it is fine. So here will be the no fertilization zone, but we are calling it balanced fertilization."

(LTO Salland, June 10<sup>th</sup> 2013)

The farmers are still fighting for their rights, and trying to change as less as possible in their everyday operations of the farm. On the other hand they are also worried that the monitoring research might expand the buffer zone. If this research shows that farmers outside the buffer zone might have influence on het Boetelerveld as well. Or that the research is not extensive enough.

"Then I say to the researcher, show us, can this farmer use fertilizers? [farmer just outside the buffer zone]. (...) And this farmer and that farmer? What is happening then? What I do not want, and what the farmers do not want, if it goes wrong that there will be said, you had to research that. I do not want that farmers will be punished because of handling of other farmers"

(LTO Salland, June 10<sup>th</sup> 2013)

So farmers are still fighting against the measurements and rules of the buffer zones. But they know something has to happen. Also more comprehensive solutions and problem solvers needs to be found.

#### 5.4 Compensations for the affected

One of the goals for executing the research was to look if there might be any solutions or compensations possible in the case where the buffer zones have impact on a farm. In the end it is not possible to make everyone happy. The buffer zones are obligatory to introduce, they are really needed to protect the habitats in het Boetelerveld. As being a Natura 2000 areas there are strict rules in conserving the special species and habitats within het Boetelerveld, and the agricultural sector has to make room for this.

None of the actors could think of a perfect solutions which would made all the farmers happy. However the farmers said that uncertainty is and was one of the biggest issues they had with the designation of buffer zones. Because of the changing plans they lost their trust in other parties and were not willing to cooperate anymore. And this trust and uncertainty is for farmers and the farmers' organisation still an issue. They are afraid that the rules and measurements will keep on changing. So first of all, it is important for all actors to be open and clear about what is going to happen. Then you gain trust by the affected party, they will probably not like it, but they know what is going to happen and can adapt to that. This is something a lot of farmers want to change in the process.

Most farmers think only good compensation might solve the problem. And with compensation they mean that they will be paid for their loss in income. Although most farmers did not think that this is real constructive, because then you need this payment every year till eternity, because this loss of income will not disappear. So what a lot of farmers suggested was that their grounds will be bought for a good price, thus the value it had before the buffer zones were designated.

"There is just one type of compensation (...) there is just one way, if they want these grounds, then only one thing can be done and that is buying it, to the notary and pay."

(Farmer 3, July 7<sup>th</sup> 2013)

Also relocation of farms and pastures is an option for the farmers. This means that grounds will be traded, this can be done for different purposes;

- To relocate the whole farm;
- To trade grounds with restrictions for ground without restrictions;

- To trade grounds between farmers to give farmers grounds nearer to their house. With relocation it is important to also check the quality of the ground. A farmer at least wants to grow the same amount of crops before and after the relocation.

"In general I do not have an issue, but I think that the companies who are close to Natura 2000, they just need to be able to execute the traditional farming, that they will not be restricted. But as it is now, half of your home plot, you cannot graze your cows there anymore, you cannot earn your bread *anymore*. In that case in principle the province, or Landschap Overijssel needs to relocate the company."

(Farmer 6, July 1st 2013)

A problem with relocation is that there needs to be land which can be used for relocation. So in order to able to execute a good and comprehensive relocation it is likely that one or two farms have to be sold out in the area. This gives space and ground for the other farms in the area.

The designation of the buffer zones and the compensation which is needed for some farmers due to the buffer zones is really expensive. The province of Overijssel assured that they have the money and are willing to use it to help the farmers out. When needed they are willing to buy and or relocate the farms who are affected to much by the designation of the buffer zones. A lot of money will be spent to protect the nature, and not everyone is happy about that.

"It feels wrong for me, than I think on elderly care we need to cut money, and here, of course there is enough money. I find it immoral that just for a few hectares, or a few plants, that much money is spent."

(Farmer 1, June 26<sup>th</sup> 2013)

This last quote shows that despite the fact he might be compensated he still does not like it. It is not really a solution for him, he prefers to spend that money on issues he thinks are more important. Also some farmers pointed out that they are afraid that if they want any compensation for production loss, that they have to prove this, or fill in lots of paperwork before they will get the compensation. They are afraid that when they need or want compensation they need to spend hours to request it. This shows that finding a solution which makes everyone happy is actually impossible. There will always be actors and people who do not like the solution which is found and in the end there will always be people who end up not totally agreeing with what is decided. There will always be conflicting demands.

#### 5.5 Sub-conclusion

The different definitions of the buffer zones shows that the actors have two totally opposed frames about buffer zones. This creates conflict, where for one group buffer zones are indispensable

according to serve nature, the other group sees the buffer zones just as a problem and even as something unnecessary since the nature area already exist for ages next to the farmlands.

The conflict in this case has different sources, the first one are the opposing frames of the actors. Especially the nature organisation and the farmers have conflicting frames. Nature organisations see buffer zones as a good tool which serves nature, while farmers frame buffer zones as problem en maybe even unnecessary to conserve nature, since nature is there already for ages. On top of that the farmers felt unheard at the beginning of the process and their frame just got eliminated in order to designate the buffer zones. This brings us to the next source of conflict, the interaction. At the start of the process there was hardly any interaction between the policy makers and the farmers. The farmers had the feeling that they were just ignored. Due to the struggles in the beginning the interaction between the actors kept difficult during the process. Especially because the farmers were uncertain what was going to happen and they tried to bring their own ideas in the plans.

With proper interaction the process would be not that much of struggle. Of course even if there was right interaction the process probably was difficult. However if there was clear from the beginning what was going to happen and why it should happen the farmers might understand it and would be more cooperative. The problem now that the plans kept on changing and it changed without informing farmers. This created distrust by the farmers and they still did not know why the buffer zones should be there.

The governmental organisations decided to not clearly frame the buffer zone, while they are actually needed to be leading in the discussion. The final decision is made by the province of Overijssel, since they are responsible for executing the policy and reaching the goals. If the governmental organisation decide to use clear frames in interaction the process might have been easier, since it is clear for all the actors what is going to happen and why it is going to happen. Interactional framing is important in process where a lot is going to happen.

Overall the interaction between the actors was poor during the process. Uncertainty among the farmers was big and they did not know what to expect. In cases such as het Boetelerveld it is important to create trust among all the different actors and be open about what the impact is and why it is going to happen. In that case the affected persons know what it is going to happen and what he or she can do about it. The affected can get used to the idea and if necessary already adept to the future situation. In the process of het Boetelerveld it kept on changing, so the probably affected could not adept already to the new situation since that situation might be changed by tomorrow.

## 6. Discussion

In this chapter the results of this study will be interpreted and discussed. Other research will be used to check whether the findings of this research are representative. This research was intended to find out how buffer zones are working out in reality, it is about frames people have about buffer zones and how they are dealing with it. One thing which was obvious was that actually all farmers were opposed the designation of the buffer zones. This outcome can be related to other research. Gotmark (2000) describes in his research about the opinions of land owners who have to deal with buffer zones for forest reserves, that the majority of land owners are opposed establishment of nature areas on their lands, even if the lands are bought or sufficient compensated. This is because many farmers and forest owners have strong feelings about their lands, it is not just property, it is their live (Götmark, et al., 2000). The land owners see their lands not just as lands, it is really important for them, where they are the boss and the owner wants to decide what is happening. They see it as their property and when the government says what is allowed and what not, the owners do not like it. A negative attitude towards nature from landowners, in this case farmers, is also what is found in this research. Often farmers thought all the measurements taken to protect the nature are overrated. This research shows that the farmers are afraid for all the restrictions they might have to face. Because of the farmers are afraid they start to protest against the new policy which frustrates the process of implementing and creates conflicts with other actors.

The negative attitude from land owners towards nature conservation creates conflict in human-environment relations, farmers have to adjust their business in order to protect nature. A problem in this might be the globalisation of nature conservation. Policy makers on high levels, such as in the European Union, decide what has to happen and what has to be conserved, this creates incomprehension among local actors who are affected (Zimmerer, 2006). During the interviews in this research farmers described Natura 2000 policy and the introduction of buffer zone as: European hassle. This shows that farmers do not like the European Union and their policies. They see it as something which just brings some difficulties to their daily lives. The legitimacy of the European Union is poor and in this case the locals try to counterwork the European policies as much as possible, in the hope it would not be executed. In Cmakalová and Rolenc (2012) it is also stated that the European Union can score better in terms of legitimacy in their research about legitimacy of the European Union. The outcomes of this research confirm that the legitimacy of the European Union is not really high. This can be seen in the fact that farmers are fighting till the end against the policy and try to make the impact as small as possible for them. The fact that they partly succeed in this shows that they have quite some influence on policy making, even though it is European policy.

To solve problems in designation of policies Ledoux et al. (2000) propose a participatory approach for implementation. This means that actors are actively concerned by the designation of policy. This will prevent conflicts and high-cost ecosystem management, since all actors are willing to participate (Ledoux, et al., 2000). In this case the farmers were complaining that they felt left out in the process, which created distrust among farmers. The distrust resulted in conflicts, since the farmers were afraid that their interests would be forgotten. If the farmers were involved from the beginning this would have saved a lot of troubles. A participatory approach will not solve all implementing problems, but the situation will be accepted by all actors which mean that it is more legitimate (Ledoux, et al., 2000). Legitimacy was also a problem in this case, the policy was not really

legitimate among the local stakeholders. The farmers tried to obstruct the implementation of the buffer zone instead of just accepting it.

Overall this research does not show abnormal results in comparison with other research. As described there are more conflicts with implementation of European policy. The source of the conflict are conflicting frames and expectations among different actors. The frames used in interaction are important to diminish these conflicts. Good communication and participatory processes are important to prevent conflicts.

## 7. Conclusion

In this last chapter of the report the research questions, as described in chapter 1 will be answered. The main research question which was designed for this research is: how are buffer zones used and what are the consequences of the designation of buffer zones to protect Natura 2000 areas? This research question was broken down to three sub-research questions in order to make it better to operationalize. Next to answering the research question there will also be discussed how this research contribute to the theory. At the end of the chapter also some policy recommendations and recommendations for further research will be given.

The aim of the research was to discover how buffer zones are defined and what the impacts of buffer zones are. To meet the aim and answer the research question of this research there was a case study executed. This case study was held in het Boetelerveld, a small nature area in the Netherlands. Different actors involved or affected by the designation of buffer zones in this area were interviewed in order to gather in depth data. Information about the social impacts of buffer zone is not well discussed in literature, with this research my hope was to contribute to knowledge about the impacts the designation of buffer zones to protect a Natura 2000 area cause in an area.

#### 7.1 answering the research questions

In chapter 1.3 three research question are defined. These questions are:

- How do buffer zones look like on paper and in practice?
- What impact do buffer zones have on different actors?
- How are the actors dealing with the impacts of the buffer zones?

The answers of the research questions will be given in the next part of this chapter.

#### 7.1.1 Question 1

To answer this question different type documents were analysed, this included policy documents. A clear and standard definition of buffer zone could not be found, every document described a buffer zone in a different way. In Natura 2000 policy documents buffer zones are referred to as "areas created to enhance the protection of a conservation area, often peripheral to it, inside or outside". Which suggest that a buffer zone is an area which is needed to protect the nature area. In the local policy documents specific for het Boetelerveld, the PAS analysis, there was no real definition for a buffer zone found. In this document buffer zone was referred to as the area where the external measures had to be taken place in order to be able to protect and sustain het Boetelerveld itself. That there was no clear definition in "official" documents led to a whole variety of definitions in among the actors. The different definitions roughly can be put in two totally different frames. One part of the definitions of buffer zones were really nature focused, for them buffer zones are areas which are designed to serve the nature area. The other frame which is important in this case is really problem focused. In general the farmers describe the buffer zone as a problem. They see it as something negative which only leads to restriction in the usage of their lands. These two different frames are really opposing, the governmental organisations tried to find a compromise between

these two and mainly said that the buffer zones are needed for nature but that the impact is not that big for the farmers.

#### 7.1.2 Question 2

This leads to the second research question which is: What impact do buffer zones have on different actors? This really depends on whom you are asking. What the ecological impacts precisely will be is still unknown and uncertain. According to the nature organisations the impacts for nature are essential and the impacts for the farmers are surmountable. However when you ask the farmers they think that the impacts are really big. Farmers can get restrictions on their lands, which can be less water drainage or restrictions in usage fertilization or a combination of both. This means for these farmers that their grounds will be less productive and it generates less food for cows. They have to buy the extra food which costs extra money. Of course there is talked about compensation for these losses, but the farmers are afraid that it is not enough or that it is just temporary while their production loss is for perpetuity. However in one way or another buffer zones will be assigned to the areas and the actors have to deal with them.

The process of designating the buffer zones had a huge impact on the actors. Conflicts arise and actors did not trust each other. Relations between actors were put to the test, especially the relation between nature organisations and the farmers. The conflicting demands of the areas created conflicts between them. Governmental organisations tried to find consensus among the two opposing frames. This conflict about the buffer zones had impact on the actors, especially in terms of trust among each other.

#### 7.1.3 Question 3

The third research question is: how are the actors dealing with the impacts of the buffer zones? Especially the farmers are important in this research question since they are the ones who really have to deal with the buffer zones. Most of them do not stress out when they think about the buffer zones. They are saying, we will see what happens and when it happens, till that time we just carry on as always. They have the feeling that they cannot stop this policy and they just accept it in the end. However during the process they tried to frustrate the process as much as possible. The designation of the buffer zones was not an easy decision and the farmers tried to make the impact for the farmers as small as possible.

Overall the designation of the buffer zone was a long and difficult process. The impact for farmers can be quite serious and there might be farms which can no longer exist in that area due to the buffer zones. This shows that policy made on supranational level, in the European Union, might have a lot of impact on the local level and has big influences on people lives. One way to deal with this is to be very clear towards each other why it needs to happen. In this way people are able to better understand why and what it is happening and therefore may be willing to corporate. In het Boetelerveld the frames about nature conservation were totally different, according to the farmers they are already helping to sustain het Boetelerveld. They did not see why there were extra restrictions needed since they already take actions to decrease the farming impact on nature.

In the case of het Boetelerveld the uncertainty among farmers about what was going to happen was really big. This lead to a negative attitude towards nature conservation and implementation of the buffer zones. Another issue is the always changing plans and policies, this creates uncertainty among the farmers, what is decided today can be changed tomorrow. To create legitimacy for policy and governments this might be an important point, try to implement policies in one time and do not keep on changing the rules. Then the local people can adjust to the new rules without having the uncertainty if it stays in this way.

#### 7.2 Theoretical reflection

The theoretical framework as described in chapter 2 is based on different theories. First, multi-level governance, which focus on the creation and implementation of European policy, in this case Natura 2000. In general this theory explains quite well how policy making in the European Union works and is mainly based on writings of Marks and Hooghe. In this research the focus was really on the local context and therefore only the local actors were interviewed while the theory of multi-level governance covers the whole system from policy making to implementing in the European Union. It was difficult to work with this theory because it is based on a wider context, however it gave good background information about policy creation in the European Union. Nevertheless in this research some parts of multi-level governance could be seen, such as horizontal and vertical shift of responsibilities. The responsibilities for maintaining het Boetelerveld shifts from the government to the province, to the area manager. Overall it was really useful theory since it shows the complexity of policy making in supra-national level, and these policies influences the local context, thus as said before multi-level governance theory is good background information which helps to understand the wider context of the problem in het Boetelerveld. This research contributed to existing literature by looking how this theory works in practice. In the case it has become clear that the European Union has difficulties with its legitimacy, which makes it hard to implement the policies designed in the European Union. The legitimate power of the European Union is low, which can be seen in that farmers try to get out of the Natura 2000 and buffer zones policy by frustrating the implementation process.

The second theory, framing, helps to understand why people can see the same thing in a total different way. This theory was described together with interpretative policy analysis, which is about meaning of policy. Framing itself especially could be seen in the conflict in this case. The conflict exists because of two totally different frames about buffer zones. At the beginning of the process there was hardly any interaction between the two different groups with their frames which led to polarisation of the groups. The bad interaction in the beginning led to angry farmers which were forced to accept the frames of others. As this example shows framing gives answers and shows why the conflict happened. Framing really give understanding of underlying problems in this case. This research showed that framing is happening overall and always and that frames are important in conflicts. The actors with opposing frames have constant conflict with each other, and one of the reasons for this is that they do not recognize the frame the other has.

Another important issue in this case was what the meaning of the policy for the actors is. Therefore interpretative policy analysis is discussed in the theory chapter. Interpretative policy analysis focusses on the meaning of a policy, which is interpreted by the researcher. This is what

happened in this study as well. The researcher interprets on the basis of the interviews he had with different actors what the meaning of the buffer zones are. This research shows that even on local level actors interpret policy differently. As example, governmental organisations think that the effects of the buffer zones will not be that severe, while farmers and nature organisations think that in some cases it is impossible to execute agriculture in profitable way because of the measures in the buffer zones.

#### 7.3 Reflection on the methods

The first starting point for this research was to find out what is happening with the buffer zones surrounding the Natura 2000 areas, and does these buffer zone causes any impacts? Due to a lack of clear information about buffer zones it was really hard to find a good starting point for the study. The information which is available is hard to find without prior knowledge about the subject. When conducting the interview new documents were pointed out by the interviewees, which were very helpful for this research

Interviewing was the right method to use in this research. Since it gave a lot of information which could not be obtained through means of for example a questionnaire. During the interviews many personal stories were told which were for good use in this research. However the lack of experience of the interviewer might have influenced the results. When listening the recordings of the interviews, sometimes I noticed that I was steering, or did not ask through at some moments. Next time doing research this is something to keep in mind as learning point. Another difficulty I had to cope with appeared during analysing the result was the strong accent or dialect some farmers had. This made it difficult to understand what the mean and even more difficult to translate it. They used sayings and words specific for that area in the Netherlands which has no proper English translation. Next to the translation problem it is also hard to grasp the most illustrating quotes to underline my statements. The amount of data gathered was quite big and it is impossible to include all quotes, thus a selection had to be made. The selection of quotes I made to include in this research is illustrating and underpins the results.

Another learning moment during the interview is to try to make it more structured. During the analysis of the interviews it became clear that the farmers were often quite chaotic in answering the questions. Although they were very open they changed the subject abruptly, which makes it more difficult to find a proper quote about one subject. This is of course not a big issue, but it makes it easier to analyse the interviews.

Overall the methodology was helpful to find the answers to the research questions and therefore you can say that the methods used were suitable for this research. A big part of this research is based on interpretation of the researcher, this might influence the outcomes. However the results found in this research can be linked and explained with other researches.

#### 7.4 Policy recommendations and further research

This case of het Boetelerveld showed learning moments for different actors and how to implement policy. The policy recommendations which are important in this case are already mentioned. It is important to have clear and open interaction among all stakeholders. If there is open interaction from the beginning no one will feel left out and conflicting frames can be discussed and respect can be created among the different actors. When there no solution can be found among all actors there still can be understanding towards each other, which reduce the chance of conflicts.

Another recommendation is related to above. It is also about interaction and be clear to the other stakeholders. Always keep all the stakeholders up to date and not change anything all of a sudden, especially not a few hours before a meeting or during the meeting. Always inform all your stakeholders what is going on. This will not lead to agreement among all actors, however it will create trust, which is also important in policy implementation. When everyone know what is happening at all time they can raise questions at the right moment and not just the moment before implementing, which slows down the process.

In regard to further research it is important to find out why the European Union has nog big legitimate power. If this is known, the European Union can work on this, which will make future implementation of policy better, the people will accept the policy easier.

Another interesting point of further research is to unravel more how framing influences policy making at all levels. Since everyone puts his own frame on every concept it might be interesting to find out how many frames a policy document has seen. This also has to deal with the interpretative policy approach, everyone puts his own view on the document. It would be interesting to find out how big the difference is of a policy document from first draft till the implementation.

Lastly, this research is only executed in one case area, where a lot of conflict is going on. It will be interesting to do the same research in other case areas to see whether this conflict is unique for this case area. It might be interesting to look at a case were the conflicts and problems of implementing the buffer zones were not that severe as in the case of het Boetelerveld.

## References

Aarts, N. & Woerkum, C. v., 2005. Frame Construction in Interaction. In: N. Gould, red. *Multi-Organisational Partnerships, Alliances and Networks.* pp. 229 - 237.

Backes, C., Dobben, H. v. & Poortinga, M., 2011b. *Stikstofdepositie en Natura 2000 Een rechtsvergelijkend onderzoek*.

Backes, C. W. et al., 2011a. *Natura 2000 in Nederland. Juridische ruimte, natuurdoelen en beheerplanprocessen,* Den Haag: Uitgeverij PBL.

Beunen, R., Assche, K. v. & Duineveld, M., 2013. Performing failure in conservation policy: The implementation of European Union directives in the Netherlands. *Land Use Policy,* Volume 31, pp. 280 - 288.

Beunen, R., Knaap, W. v. d. & Biesbroek, G., 2009. Implementation and Integration of EU Environmental Directives. Experiences from The Netherlands. *Environmental Policy and Governance*, 19(1), pp. 57 - 69.

Bommel, S. v. & Aarts, N., 2011. Framing nature conservation experts and expertise in the Drentsche Aa area in the Netherlands: a contextual approach. In: *Framing matters, perspectives on negotiation research and practice in communication*. New York: Peter Lang, pp. 191 - 209.

Bouhuijzen, L., 2013. Boeren rond natuurgebied zijn nog niet tevreden met recent gesloten akkoord. - Boer komt op voor zijn belang. *De Stentor - Sallands Dagblad*, 23 february.

Carluer, N. et al., 2011. Role of buffer zones in controlling pesticides fluxes to surface waters. *Procedia Environmental Sciences,* Issue 9, pp. 21 - 26.

Christensen, T. et al., 2011. Determinants of farmers' willingness to participate in subsidy schemes for pesticide-free buffer zones - A choice experiment study. *Ecological Economics*, Issue 70, pp. 1558 - 1564.

Cmakalová, K. & Rolenc, J., 2012. Actorness and legitimacy of the European Union. *Cooperation and conflict*, 47(2), pp. 260-270.

Dewulf, A. & Bouwen, R., 2012. Issue Framing in Converstations for Change: Discursive Interaction Strategies for "Doing Differences". *The Journal of Applied Behavioral Science*, 48(2), pp. 168 - 193.

Dewulf, A. et al., 2005. Disentangling approaches to framing: mapping the terrain. Seville.

Dewulf, A. et al., 2009. Disentangling approaches to framing in conflict and negotiation research: A meta-paradigmatic perspective. *Human Relations*, 62(2), pp. 155 - 193.

Dijksma, S., 2013. Besluit Natura 2000-gebied Boetelerveld.

Doorn, A. M. & Paulissen, M. P. C. P., 2009. *Natuurgericht milieubeleid voor natura 2000-gebieden in Europees perspectief: een verkenning.* Wageningen: Wettelijke Onderzoekstaken Natuur & Milieu.

Ebregt, A. & Greve, P. d., 2000. *BUFFER ZONES and their MANAGEMENT*. Wageningen: National Reference Centre for Nature Management.

Eckerberg, K. & Joas, M., 2004. Multi-level Environmental Governance: a concept under stress?. *Local Environment*, 9(5), pp. 405 - 412.

Entman, R., 1993. Framing: towards clarification of a fractured paradigm. *Journal of Communication*, 43(4), pp. 51 - 58.

European Commission, 2010. *Option for an EU vision and target for biodiversity beyond 2010.* Brussels.

European Commission, 2013. *Natura 2000 Barometer*. [Online] Available at: <a href="http://ec.europa.eu/environment/nature/natura2000/barometer/">http://ec.europa.eu/environment/nature/natura2000/barometer/</a> [Visited: 10 December 2013].

Flyvbjerg, B., 2006. Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), pp. 219 - 245.

Gibbs, D., While, A. & Jonas, A. E., 2007. Governing nature conseration: the European Union Habitats Directive and conflict around estuary management. *Environment and Planning,* Volume 39, pp. 339 - 358.

Golafshani, N., 2003. Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, 8(4), pp. 597 - 607.

Götmark, F., Söderlundh, H. & Thorell, M., 2000. Buffer zones for forest reserves: opinions of land owners and conservation value of their forest around reserves in southern Sweden. *Biodiversity and Conservation*, Issue 9, pp. 1377 - 1390.

Haan, M. d. & Meijenfeldt, N. v., 2012. *Natura 2000 Gebiedsanalyse voor de Programmatische Aanpak Stikstof (PAS) Boetelerveld.* 

Hajer, M. A., Tatenhove, J. P. M. v. & Laurent, C., 2004. *Nieuwe vormen van Governance,* Bilthoven: RIVM.

Harden, C., 2012. Framing and Reframing Questions of Human-Environment Interactions. *Annals of the Association of American Geographers*, Issue 4, pp. 737 - 747.

Hendriks, C., 2007. Praxis stories: Experiencing interpretative policy researh. *Critical Policy Studies*, 1(3), pp. 278 - 300.

Hiedanpää, J., 2002. European-wide conservation versus local well-being: the reception of the Natura 2000 Reserve Netwrok in Karvia, SW-Finland. *Landscape and Urban Planning,* Volume 61, pp. 113 - 123.

Hooghe, L. & Marks, G., 2001. Multi-Level Governance in the European Union. In: *Multi-Level governance and European Integration*. Lanham: Rowman & Littlefield Publishers inc, pp. 1 - 33.

Jachtenfuchs, M., 2001. The Governance Approach to European Integration. *Journal of Common Market Studies*, 39(2), pp. 245 - 264.

Jordan, A., 2001. The European Union: an evolving system of multi-leve governance ... or government?. *Policy & Politics*, 29(2), pp. 193 - 208.

Keskitalo, E. & Pettersson, M., 2012. Implementing Multi-level Governance? The Legal Basis and Implementation of the EU Water Framework Directive for Forestry in Sweden. *Environmental Policy and Governance*, Issue 22, pp. 90 - 103.

Kiwa Water Research & EGG-consult, 2007. *Knelpunten en kansenanalyse Natura 2000-gebieden,* Nieuwegein: Kiwa Water Research/ EGG-Consult.

Ledoux, L., Crooks, S., Jordan, A. & Turner, R., 2000. Implementing EU biodiversity policy: UK experiences. *Land Use Policy*, Issue 17, pp. 257 - 268.

Loveless, M. & Rohrschneider, R., 2011. Public perceptions of the EU as a system of governance. *Living Reviews in European Governance*, 6(2).

Luijmes, R., 2013. *LTO Ommen wil bufferzone schrappen*. [Online] Available at:

http://www.nieuweoogst.nu/scripts/edoris/edoris.dll?tem=LTO\_TEXT\_VIEW&doc\_id=159405 [Visited: 18 February 2013].

Marks, G., Hooghe, L. & Blank, K., 1996. Europea integration from the 1980s: State-Centric v. Multi-level Governance. *Journal of Common Market Studies*, 34(3), pp. 341 - 378.

Marovcsik, A., 2002. In Defence of the 'Democratic Deficit': Reassessing Legitmacy in the European Union. *JCMS*, 40(4), pp. 603 - 624.

McNeely, J., 1994. Protected areas for the 21st century: working to provide benefits to society. *Biodiversity and Conservation*, Volume 3, pp. 390 - 405.

Ministerie Infrastructuur en Milieu, 2013. Wet ammoniak en veehouderij.

Ministerie van Economische Zaken, 2013. *Boetelerveld*. [Online]

 $\frac{http://www.synbiosys.alterra.nl/natura2000/gebiedendatabase.aspx?subj=n2k\&groep=5\&id=n2k41\\ \&topic=introductie$ 

[Visited: 19 April 2013].

Muscutt, A., Harris, G., Bailey, S. & Davies, D., 1993. Buffer zones to improve water quality: a review of their potential use in UK agriculture. *Agriculture, Ecosystems and Environment,* Issue 45, pp. 59 - 77.

Mwalyosi, R., 1991. Ecological Evaluation for Wildlife Corridors and Buffer Zones for Lake Manyara National Park, Tanzania, and its Immediate Environment. *Biological Conservation*, Volume 57, pp. 171 - 186.

Neyer, J., 2010. Justice, Not Democracy; Legitimacy in the European Union. *Journal of Commo Market Studies*, 48(4), pp. 903 - 921.

Ostermann, O. P., 1998. The need for management of nature conservation sites designated under Natura 2000. *Journal of Applied Ecology*, 35(6), pp. 968 - 973.

Potocnik, J., 2011. EUR-Lex Acces to European Law. [Online]

Available at: http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:198:0039:0070:EN:PDF

Visited: 14 March 2013].

Pronk, J. & Brinkhorst, L., 2002. Wet ammoniak en veehouderij. [Online]

Available at: http://wetten.overheid.nl/BWBR0013402/geldigheidsdatum\_22-04-2013

[Visited: 22 April 2013].

Provincie Overijssel, 2009a. BEHEERPLAN NATURA 2000 BOETELERVELD.

Provincie Overijssel, 2009b. Boetelerveld Voortgangsrapportage kerndocument.

Rothstein, B., 2009. Creating Political Legitimacy. Electoral Democracy Versus Quality of Government. *American Behavioral Scientist*, 53(3), pp. 311 - 330.

Roulston, K., 2001. Data analysis and 'theorizing as ideology'. *Qualitative Research*, 1(3), pp. 279 - 302.

Schmidt, V., 2013. Democracy and Legitimacy in the European Union Revisited: Input, Output and 'Throuhput'. *Political Studies*, Volume 61, pp. 2 - 22.

Schou, J., Tybirk, K., Lofstrom, P. & Hertel, O., 2006. Economic and environmental analysis of buffer zones as an instrument to reduce ammonia loads to nature areas. *Land Use Policy,* Issue 23, pp. 533 - 541.

Stake, R., 1995. The Art Of Case Study Research. Thousand Oaks: SAGE Publications, Inc..

Tattari, S., Schultz, T. & Kuussaari, M., 2003. Use of belief network modelling to assess the impact of buffer zones on water protection and biodiversity. *Agriculture, Ecosystems and Environment,* Issue 96, pp. 119 - 132.

Thorell, M. & Götmark, F., 2005. Reinforcement capacity of potential buffer zones: Forest structure and conservation values around forest reserves in southern Sweden. *Forest Ecology and Management*, Issue 212, pp. 333-345.

UNEP-WCMC, 2010. Buffer Zones. [Online]

Available at: <a href="http://www.biodiversitya-z.org/areas/10/">http://www.biodiversitya-z.org/areas/10/</a>

[Visited: 3 October 2013].

UNESCO, 2013. *Ecological Sciences for Sustainable Development: Zoning Schemes*. [Online] Available at: <a href="http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/main-characteristics/zoning-schemes/">http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/main-characteristics/zoning-schemes/</a>
[Visited: 3 October 2013].

Vujakovic, P., 1987. Monitoring Extensive 'Buffer Zones' in Africa: An Apllication for Satellite Imagery. *Biological Conservation*, Issue 39, pp. 195 - 208.

Yanow, D., 1993. The communication of policy meanings: Implementation as interpretation and text. *Policy Sciences,* Issue 26, pp. 41 - 61.

Yin, R., 1994. *Case Study Research Design and Methods*. 2nd red. Thousand Oaks: SAGE Publications, Inc.

Zimmerer, K., 2006. Cultural ecology: at the interfae with political ecology - the new geographies of environmental conservation and globalization. *Progress in Human Geography,* Issue 30, pp. 63 - 78.

## Appendix A: Interview guide

#### **Inleiding**

Als eerste wil ik u bedanken voor de medewerking aan mijn onderzoek, het interview zal ongeveer 30 minuten duren. Mijn naam is Inge van Dasselaar en ondertussen 5<sup>e</sup> jaars student aan de Wageningen Universiteit, om mijn studie Bos en Natuurbeheer te kunnen afronden moet ik dit onderzoek doen.

Mijn onderzoek gaat over de buffer zones die aangewezen moeten worden en via interviews probeer ik erachter te komen waar problemen liggen met de aanwijzing van buffer zones. Ik ga u een aantal open vragen stellen en ik wil u vragen om deze te beantwoorden, er zijn geen goede en foute antwoorden. Daarnaast wordt er met de informatie vertrouwelijk omgegaan en blijft u anoniem in het onderzoek.

Ik wil u vragen of u problemen heeft met het maken van geluidsopnamen?

Onderwerpen
Natura 2000
Buffer zones
Gevolgen
Problemen
Algemene informatie
Datum:
Tijd:
Plaats:
Vragen
Algemene vragen:
Kunt u wat vertellen over uw organisatie?
Welke positie heeft u binnen het bedrijf/organisatie?

## Natura 2000

Hoe is uw bedrijf/organisatie gelinkt aan Natura 2000?/ Wat is uw rol bij natura 2000?
Wat vindt u van natura 2000?
Hoe zou u Natura 200 omschrijven? Wat kunt u erover vertellen?
Door wie wordt Natura 2000 gehandhaafd?
Hoe ging de implementatie van Natura 2000?
Bufferzones  Hoe heeft uw bedrijf/organisatie te maken met de buffer zones die aangewezen zijn om het Natura 2000 gebied (Boetelerveld) te beschermen?
Hoe zou u de buffer zones omschrijven?  Wat zijn de afspraken in de buffer zones? (omschrijf het plan van het waterschap)
Wat zijn uw verwachtingen van de buffer zones?
Wat is het belang van de bufferzones?
Wat is/was u rol hierin?
Hoe ging de implementatie van de buffer zones?  Bent u tevreden met het plan zoals het er nu ligt?  Kunt u het plan kort beschrijven?

Wat zijn de gevolgen van de implementatie van de buffer zones?

Zowel positief als negatief

Hoe gaan boeren er mee om?
Hoe gaat de overheid ermee om?
Wie hebben er interactie met elkaar?
Wie overlegd met wie? En wie kan het goed met wie vinden?
Zijn denkt u de gevolgen van de invoering van buffer zones voor andere bedrijven/organisaties anders?
Hoe anders? (verschil in intensiteit/helemaal andere problemen/etc.)
Zijn er problemen ontstaan door het invoeren van de buffer zones?
Voor uw eigen, maar ook andere bedrijven/organisaties?
Wat voor problemen?
Is er bij u bekend of er oplossingen zijn voor de problemen?
Wat voor oplossingen?
Hoe wordt er omgegaan met de problemen die zijn ontstaan door de implementatie van de buffer zones?
Dit was het einde van het interview en ik wil u nogmaals hartelijk bedanken voor uw medewerking

Hoe wordt er door verschillende actoren in de praktijk met de buffer zones omgegaan?

# Appendix B: List of interviews

List	List of interviews					
	Organisation	Date	Location			
1	LTO Salland	10th June 2013	Heeten			
2	Individual Farmer	10th June 2013	Haarle			
3	Individual Farmer	10th June 2013	Raalte			
4	Municipality of Raalte	18th June 2013	Raalte			
5	Landschap Overijssel	18th June 2013	Dalfsen			
6	Province of Overijssel	18th June 2013	Zwolle			
7	Individual Farmer	28th June 2013	Marienheem			
8	Individual Farmer	1st July 2013	Haarle			
9	Individual Farmer	1st July 2013	Heeten			
10	Individual Farmer	1st July 2013	Marienheem			
11	Unie van bosgroepen	1st July 2013	Ede			
12	Landschap Overijssel	2nd July 2013	Dalfsen			
13	Waterschap Groot Salland	10th July 2013	Zwolle			