

Cross-border governance in the Vecht river basin

Interaction between nature organizations

Bachelor thesis

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Due to the problem of governing the commons, the multilevel as well as multiactor character of governing these, has become more obvious. The goal of this case study is to predict the types of interaction concerning the cooperation of nature organizations in the Vecht river basin, as well as finding problems which may impede cooperative interaction. This will be done by using the actor characteristics motivation, cognitions and capacity and power, from the Contextual Interaction Theory. In addition the theory's predictive qualities in this case, which is beyond the theories usual domain, were tested. It was found out that the theory's predictions do not correspond with the types of interactions between the nature organizations. In general there was no cross-border cooperation to be found, which is due to a lack of information about the respective cross-border organizations, as well as a lack of resources.

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1. Introduction

1.1 Background and Framework

Research that deals with the cross-border cooperation of public governance actors in the Vecht river or the implementation of the Water Framework Directive has been conducted extensively (Coenen & Lulofs , 2007; Wiering et al, 2010); in contrast there is a lack of research concerning interaction between actors operating in the civil and private field, which has been found out by contacting researchers dealing with the governance of the Vecht river basin. Therefore this study concentrates on the cross-border interaction of civil nature organizations thus on NGOs, as these organizations also play a vital part in the Vecht river basin (Initiator Bestandsaufnahme, 2008). It is to point out that the broader context of this study relates to the implementation of the Vechtetalstrategy whereas the focus is laid on the cooperation of the nature organizations. In addition it should be kept in mind that the CIT's focus is meant to be on the application of a policy and thus the theory is used beyond its domain as it is focused mainly on cooperation in this research.

The specific research question which is dealt with in this case study is *“what types of interaction can be found between the nature organizations in the Vecht river basin and to what extent do the types of interaction predicted by the theory correspond with the interaction responses of the nature organizations?”*.

It was examined which type of interaction can be predicted, in each round of cross-border interaction between the nature organizations, so between each Dutch and German organization, in the Vecht river basin while having the broad focus on the application of the Vechtetalstrategy. It was figured out which actor characteristics hinder interaction or impede more cooperative types of interaction as well as it was reported about recommendations for improving the type of interaction. This was done only by using the Contextual Interaction theory and it's so called actor characteristics, motivation, cognitions and capacity and power which determine the type of interaction among the implementing actors (Bressers, 2004). In addition the theory's predictions were compared with the “real” types of interaction found between the nature organizations in order to test the theory's predictive qualities in this specific case and it was looked at reasons for divergences between the theory and “reality”.

It was figured out that in every interaction round the predicted type of interaction differed with the type of interaction found between the nature organizations which is due to two reasons the nature of the question asked to find out about the type of interaction which was only indirectly specified by the organizations and the fact that there is no relational setting between the actors which changes the determination of the type of interaction and makes each actors' capacity much more important.

The main reasons for why there is no cooperative interaction to be found between the cross-border NGOs are lacking resources like finances, personnel and time and the fact that the nature organizations do not possess enough information about each other. Thus it is suggested for the nature organizations to get to know each other and gain more support from for instance private people. Additionally it was found that the NGOs are dependent on a range of actors like water boards and municipalities which may impede the fulfillment of their interests if the nature organizations are not assertive and thus strong enough which they however could become by cooperating cross-border.

1.2 Motivation and Relevance of findings

It is important to specify the types of interaction in the civil sphere in the Vecht river basin and thus see if the interaction needs to be enhanced in form of developing it into a more cooperative type of interaction; as cooperative behavior is important when it comes to governing water as well as pastures and forests which demonstrate part of the river basin and are defined as common pool resources (Ostrom et al, 1999).

Common pool resources are characterized by the fact that it is difficult to exclude the access of possible users and each user decreases the welfare or ability of the other users when availing oneself of the common pool resource (Berkes, 2008).

In order to understand the importance of cooperation between the actors in governing common pool resources, the parable of the tragedy of the commons will be described, it is a parable about a town in which sheep are raised. In this town, there is an abundance of land, which is owned collectively by the town residents, however the number of sheep raised on the land grows as the individual benefits from that but the amount of land does not grow, thus the land loses the ability to replenish and therewith becomes barren (Mankiw & Taylor, 2006). This happened because the resident individually gained from raising more sheep contributing to a small part of the problem however as collectively the number of sheep became excessive the problem of overgrazing was too strong. Thus the problem occurred because of neglecting a negative externality. This parable shows very well the subtractability characteristic of the common resources meaning the use of a common resource by one person diminishes the other people's use of it and due to this, the common resource tends to be used too excessively which makes it important to govern these resources properly. This means with all potential actors involved. More specifically this means with regard to the Vecht river basin that all public, private and civil actors need to cooperate horizontally as well as vertically. It is important to understand the scale and institutional linkages in multilevel governance of the commons with regard to public, private and civil actors (Berkes, 2008), and thus study the cooperation of all of these actors; however this research will concentrate and generate new knowledge about the horizontal interaction of the civil actors and thus only provide a small contribution to the understanding of the whole multi-level governance of the Vecht basin.

An additional argument in favor for more cooperative types of interaction, is delivered by the Vechtetalstrategy (Grenzüberschreitende Vechtetal-Strategie/ Grensoverschrijdende Vechtvisie or Ruimte voor de Vecht), which can be seen as the key document with the purpose to establish cross-border cooperation, it points at the fact that water, as well as nature does not know borders and thus does not stop at borders and thus implies joint action from both sides of the border, in addition cross border cooperation grants the possibility that further countries can learn from each other and thus profit from the situation (INTERREG, 2009).

In addition it is important to test the theory's prediction and compare them with the "real" types of interaction found between the nature organizations in order to see whether the theory's predictions are right in this particular case, although it is beyond the usual scope of the theory, and to give reasons for incompatibility which may also be applicable for future cases and thus improve the living theory.

Furthermore it is to mention that this topic of water governance with a focus on civil organization cooperation is of particular interest, as there has not been any research on cross-

border civil cooperation until now, while joint action implied by the Vechtetalstrategy applies also to the civil actors. Due to the fact that there has not been any research, there is also the risk that the types of interaction to be found are not of cooperative nature. However this research is seen as supportive for the specific organizations as potential weaknesses or problems in the interaction or reasons, referring to the actor-characteristics, for non-interaction can be detected and thus interaction improved or established.

To come to a conclusion the purpose of this study is to create knowledge that can be used as recommendation for improvement of the civil interaction in the Vecht river basin, as well as the usefulness of the theory concerning this cross-border interaction case. Next the outline of this paper will be described.

1.3 Outline

The paper is structured as follows. First of all some facts about the Vecht river basin are mentioned, afterwards the Vechtetalstrategy (also “Ruimte voor de Vecht”) is described. After that the nature organizations in the Vecht river are shortly introduced. Next it is proceeded with the theoretical framework, explaining the choice of the theory, the assumptions and actor characteristics, as well as the CIT’s use within this study. Thereafter the research methodology is outlined, incorporating the research questions, the framework and methods in which it is also looked at the data collection and data analysis and possible threats and validity considerations. The analysis is divided into five parts according to the sub-research questions. Lastly a conclusion is drawn, while also looking at the limitations of this study as well as future research.

2. The Vechtetalstrategy / Ruimte voor de Vecht

2.1 The Vecht river basin

Before coming to the Vechtetalstrategy, some details about the Vecht will shortly be listed. The Vecht belongs to the Rhine area, the river originates in the federal state of North-Rhine Westphalia in Germany and then passes through lower Saxony over the Dutch-German border through the Dutch province Overijssel.

The whole basin area covers about 6300km² (Coenen & Lulofs, 2007). Its length is about 167 kilometers. There are several Natura 2000 areas to be found in the Vecht river basin which have to be designated as special areas of conservation according to the Habitats Directive (92/43/EEC) of the European Union (European Commission, 2013). It is to point out that these areas are not meant for excluding all human activities and are often privately owned while it is ensured that upcoming management of these areas are sustainable. The topic map nature shows the Natura 2000 areas along the river (DHV & NWP, 2009).

Following the Vechtetalstrategy (also: Ruimte voor de Vecht) and its purpose will be described.

2.2 The Vechtetalstrategy – Ruimte voor de Vecht

As already mentioned the Vechtetalstrategy (Grenzüberschreitende Vechtetal-Strategie/Grensoverschrijdende Vechtvisie) is the most important document in the cross-border interaction between the actors. The strategy is an INTERREG project and thus co-financed by the EU. It has the purpose to establish sustainable as well as lasting cooperation between all the actors involved, as this improves the effectiveness of the strategy as well as ensures cooperation after the end of this project (INTERREG, 2009). In the short run the concrete projects implied in the strategy should be realized, the time horizon is directed from 2009 towards 2013, whereas the long time horizon is directed towards 2050.

In the Vechtetalstrategy governmental as well as non-governmental actors like the nature NGOs, this research will focus on, play a role, it is however no public policy, meaning it is not mandatory to implement the projects incorporated in the strategy as it works on a voluntary basis and is thus not legally binding (Initiator Bestandsaufnahme, 2008). The Vechtetalstrategy was developed by expanding the Dutch strategy “Ruimte voor de Vecht”, they are complementary documents and well-matched concerning the goals and organization of those. There is especially one project called “renaturation Vecht, nature protection and water quality” which concerns cross-border cooperation and in which the nature protection organizations have to play an essential role.

In general the Vechtetalstrategy has projects in four spheres: water management, nature protection, spatial planning and economy referring to the extension of tourism in this area (INTERREG, 2009). There is the common desire for cross-border cooperation in order to realize the projects incorporated in the Vechtetalstrategy. In addition it is seen as productive that as many actors as possible support this strategy.

As already mentioned there are some reasons for cooperation between the Dutch and German part of the Vecht river, as there is the possibility to learn from each other and to profit mutually from the development of the Vechtetal into a lively river basin (INTERREG, 2009). In addition it is seen as necessary to work together as the basin does not know borders; in the Vechtetalstrategy it is indicated that cooperation is aspired where it is possible and independent work of each country only where it is necessary. The strategy tries to find the median between Dutch and German perceptions, emphasizing similarities but also leaving some room for local and regional particularities.

Five long term development goals are specified in the Vechtetalstrategy including the exhaustion of the whole potential of the concept living Vecht, keeping the pastures in the Vecht and shaping them by farming, nature and tourism, attracting and directing visitors and making people aware of the Vecht river basin (INTERREG, 2009).

Concerning nature protection it is mentioned that the Vecht possesses a lot of potential for nature development, there is the chance that in the pastures, nature protection areas develop that cover almost the whole area along the river. Essential means for nature development are renaturation and extension of green areas in the pastures, as well as developing new Natura 2000 areas. The concrete cooperation concerning the conservation and extension of nature protection areas was low at the initiation of the strategy in 2009, so it is even more interesting to find out whether this improved due to the strategy or still needs some time.

Next the nature organizations in the Vecht river basin will be shortly introduced.

3. The nature protection organizations in the Vecht

3.1. German Actors

3.1.1. NABU

NABU is a German non-governmental nature protection organization. The organization especially deals with concrete goals which concern nature protection within Germany but also abroad, including the protection of rivers, forests and animal species (Initiator Bestandsaufnahme, 2008). Concerning the Vecht river basin the circle group “NABU Grafschaft Bentheim” located between the regional and local level (Kreislevel), is interested in the improvement of the ecological framework conditions, as well as a soft development of tourism and protection of natural areas (Questionnaire NABU, 2013).

3.1.2. BUND

The “Bund für Umwelt und Naturschutz Deutschland“ abbreviation BUND, is one of the largest environmental organizations active in whole Germany (Initiator Bestandsaufnahme, 2008). It is a non-governmental organization which is financed only by donations and membership fees. The circle group “BUND Grafschaft Bentheim”, on which this research will focus, is also located on the “Kreislevel” and actively concerned with nature protection, especially with the fostering of the Vecht wetlands and with the protection of the natural areas in the basin (Questionnaire BUND, 2013).

3.2. Dutch Actors

3.2.1. Groen Platform Vecht

The Groen Platform Vecht is located on the province level, Overijssel. It consists of the local natural and environmental organizations in the Vecht. The Platform can be distinguished into five bigger natural organization groups which are non-governmental, “De Koppel” in Hardenberg, “Vereniging Natuur en Milieu De Vechtstreek” in Ommen, “Vrienden van Dalfsen” in Dalfsen, “Koninklijke Nederlandse Natuurhistorische Vereniging” (KNNV) located in Zwolle and the “Initiatiefgroep IJssel-Vechtdelta”, in Dalfsen-Zwolle. It is to mention that there are some more nature organizations to be found which belong under these bigger natural organizations and thus are indirectly incorporated. The aims and interests of these organizations are a bit more diversified, KNNV and Vrienden van Dalfsen mainly care about their local base which is not on the border and their aim is to give advice to the province Overijssel concerning actions in the Vecht basin (Questionnaire KNNV & Vrienden, 2013). Whereas de Koppel has an educational purpose, it wants to make people aware of the nature preservation and investing in nature importance in order to enhance biodiversity; in addition de Koppel is an umbrella organization of 12 smaller nature organizations in the Vecht (Questionnaire De Koppel, 2013). Vereniging Natuur en Milieu De Vechtstreek is concerned with developing the river into a natural lively river, as well as increasing the biological diversity in the basin (Questionnaire Vereniging, 2013). The Initiatiefgroep IJssel-Vechtdelta deals with the restoration of the meanders and inundations of the Vecht, and it also wants to create a lively river basin (Questionnaire Initiatiefgroep, 2013). Now it is proceeded with the theoretical framework.

4. Theoretical framework – Contextual Interaction theory

4.1. Choice of the theory

The theory that will be used, in order to find an answer to the research question, is the contextual interaction theory. This theory was chosen because of its' use of the three core actor characteristics, as well as its' focus on the implementation of a policy or project, whereas other theories like actor-centered institutionalism or institutional analysis do not have this focus at all (Owens, 2008). However in this study the central focus will be laid on cooperation which is tried to be predicted by the type of interaction determined with the use of the actor characteristics. The choice of the three specific actor characteristics can be justified due to the reason that as Owens (2008) describes it, there are a lot of variables that are important in explaining interaction processes however the three variables motivation, cognitions, capacity and power are the most essential ones, as every variable that may explain an interaction process can be directly linked to one of these three core actor characteristics. Next the theory's assumptions will be approached.

4.2 Assumptions

In the classical application of the Contextual interaction theory (CIT) it is distinguished between two actors, the target group which is necessary to realize the policy and the implementer which is seen as a governmental agency, and thus officially charged with the implementation (Bressers, 2004; Owens, 2008). Thus the theory assumes that actor interaction processes, are processes between the target group and the implementer. Furthermore the contextual interaction theory assumes that “policy processes are [multi] actor interaction processes”, which are built by the combination of three key actor characteristics (Vikolainen, 2012, p.38). These characteristics are their motivations, their cognitions and their capacity and power. They stipulate the type of interaction, as due to their presence or absence different types of interaction can be specified. The just mentioned characteristics determine the social interaction processes between the actors and therewith can be described as the main driving force of the interaction (Boer & Bressers, 2011). Thus the characteristics can also be seen as having “a strong explanatory power of the course and results of interaction processes” (Bressers, 2009, p.135). All other potential factors influence the policy process only by influencing the three key actor characteristics (Boer & Bressers, 2011). In addition the characteristics can be shaped in the course of the process due to for instance gained experiences, and therewith alter the social interaction process and thus the type of interaction to be found.

One other main assumption of the CIT is that the three actor characteristics are influencing each other, thus are correlated, which means that a change in one has impacts on the other two characteristics, therefore the limitation to one or two characteristics is not possible without fearing a substantial loss of insight (Boer and Bressers, 2011). The combination of all three actor characteristics determines the type of interaction (see Appendix Table 2) which will be laid down more specifically in the data analysis part (Bressers, 2004). Due to this reason it was also decided to look at all three actor characteristics.

Another assumption of the CIT is that the context only influences the outcomes of an interactive process by the involved actor characteristics (Boer, 2012). So one can say, that the interaction process is only shaped by the actor characteristics; whereas the actor characteristics are influenced by or even incorporate all other factors including the context or other variables that are explanatory factors for the interaction process.

With the help of the contextual interaction theory the likelihood of the application of a policy as well as the degree of adequate application of a policy can be predicted (Boer & Bressers, 2011; Bressers, 2004), which are however not of interest in this study. Blatter (1997) says that factors like interest, values and capacities are essential factors for determining the policy output but not for explaining cross-border cooperation; as for explaining cooperation the constellation among the regions regarding these factors is essential, this supports the choice of the characteristics, as well as the types of interaction which demonstrate the constellation of the characteristics between the actors.

4.3. The Actor Characteristics

In this paper it was looked on all three above-mentioned actor characteristics, which are conceptualized in the following.

Motivation is influenced by the individual goals and values of the actors, as well as external pressure and a self-assessment of the own effectiveness (Vikolainen, 2012). It is referred to the motivation for behavior or action, the positions in the interaction process of the actors, which are taken due to individual goals and values, also involving self interest (Boer & Bressers, 2011). Motivation mostly relates to the way the implementation of the project, plays a role in the accomplishment of an actor's objectives (Owens, 2008). Thus the focus is put on the fact whether the application of the policy is apprehended "as contributing to the goals and interests of the actors involved" (Bressers, 2004, p.290).

External pressure can also motivate, whereas the self effectiveness assessment can also demotivate when for instance an actor "perceive[s] its preferred behavior as beyond its capacity" (Boer & Bressers, 2011, p.70), this also demonstrates the interconnection of two of the characteristics, capacity and motivation.

Cognition or information is related to the actors' awareness and interpretation of the situation, their awareness of the policy, its' requirements and benefits, as well as of the other stakeholders' existence and role. Information relates to subjects like handling knowledge about the policy as well as knowledge about compliance, transparency of the process and accessibility to materials concerning the policy (Owens, 2008). Thus application of the policy depends on whether the actors involved possess enough information about the policy and the other stakeholders for applying the project (Bressers, 2004).

Capacity and power involves resources and control, which mainly includes the actor's reputation of power apprehended by themselves and others. Resources incorporate factors like finances, personnel or time and provide the ability to act (Owens, 2008; Boer & Bressers, 2011). Resources can be seen as the "root of these powers" (Boer & Bressers, 2011, p.71), which is also influenced by the fact whether the actor is dependent on the resources of another actor. Thus application of the project also depends on whether the actors have enough resources and therewith the ability to apply the policy.

Next it will specifically be looked at the use of the theory in this study.

4.4. Use of the theory

Concerning the theory it is to say that the distinction of the actors' role into the implementer and target group is not applicable in this study as the nature organizations are on the same level, meaning that they have the same role representing target groups while no organization can be seen as the classical implementer, a governmental agency. The CIT is seen as a living theory (Owens, 2008); so it is further developing and applied to new cases, it is also supportive in this study to make use of it and see whether its predictions are right in this special case or if it is necessary to make some changes. It is to point out that in its' more recent applications the theory was also used and seen as applicable when multiple actors are involved in the implementation process and the implementer cannot be seen as a governmental agency which supports the fact to test the theory in this particular case as well (Owens, 2008; Boer & Bressers, 2011).

The CIT looks at a specific policy and its implementation, which is seen as an actor interaction process between always two actors, as it is a two actor-interaction model (Boer & Bressers, 2011). In this case it will be looked at the implementation of the Vechtetalstrategy which will however be the broad context in this study while it will be focused on the cooperation of the NGOs. The application of a policy or project is connected to the cooperation of the actors in so far that they have to interact in order to implement the project in the case of a cross-border project, as the Vechtetalstrategy describes it. The CIT's focus on implementation is seen as supportive, also in this study, as the determination of the actor characteristics with regard to a special policy is seen as easier as the nature organizations have a clear focus in the questionnaire and in addition this policy focus is more realistic; as especially this policy implies that cross-border cooperation is important, and therewith fits to the focus of this research.

Thus in this paper it will be looked at the interaction of the actors concerning the Vechtetalstrategy, by predicting the type of interaction between the civil organizations which will be done by the determination of the just conceptualized actor characteristics. As already indicated in the assumption part of the CIT the actor interaction process and thus the type of interaction is only shaped by the actor characteristics, which are however influenced by all other kind of factors. Therefore it is sufficient to look at the actor characteristics in order to predict the type of interaction found between each actor interaction round with the help of the CIT as can also be seen in Figure 1.

The claims of which type of interaction is to be found grounded on which actor characteristicis present or absent can be seen in Table 2 (Appendix).

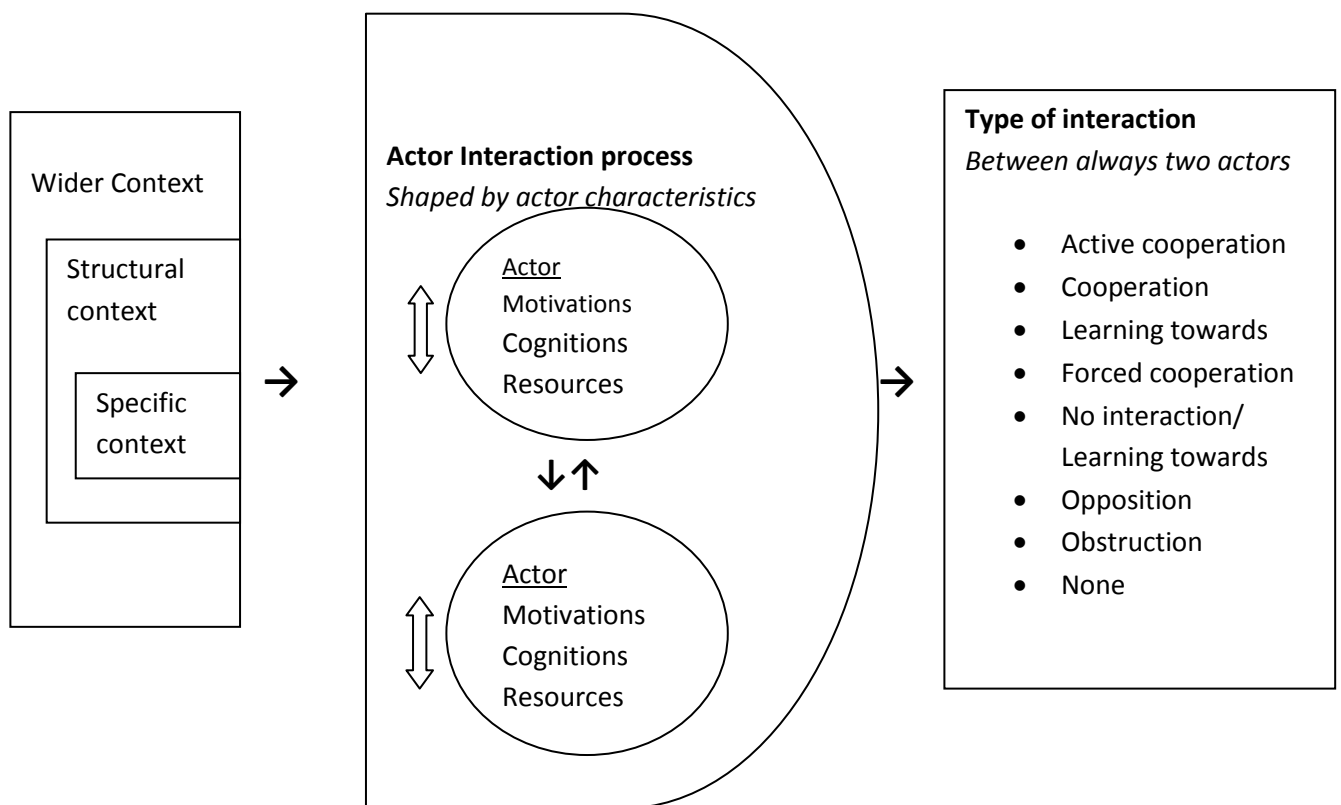


Figure 1 showing that an actor interaction process, influenced by contextual factors, is shaped by the actor characteristics (that influence each other) and which in turn shape the type of interaction (partly taken from Vinke de Kruijff, 2013).

So to come to a conclusion concerning the contextual interaction theory the actor characteristics are of crucial importance in understanding social interaction processes and thus the type of interaction between the nature organizations as indicated in the figure.

It should be mentioned that the CIT will be used as a framework and thus guide the research concerning the data collection and analysis, however this research is also conducted for testing the theory's predictions. This will also be explained more in the following research methodology.

5. Research Methodology

5.1. Research questions

The central research question which is dealt with in this study is the following:

What types of interaction can be found between the nature organizations in the Vecht river basin and to what extent do the types of interaction predicted by the theory correspond with the interaction responses of the nature organizations?

The central question is divided into five sub-questions, looking first of all at the actor characteristics (Question 1) with which the types of interaction are predicted next (Question 2); then the predicted type of interaction will be compared with the interactions found between the nature organizations (Question 3), examining reasons for divergences afterwards (Question 4) and lastly looking at problems concerning absent actor characteristics and

recommendations for improving the type of interaction and thus create a more cooperative type of interaction between the actors (Question 5). This means concretely:

- 1. What are the actor characteristics (motivations, cognitions and power) of the different nature organizations?*
- 2. What type of interaction is predicted by the theory in each cross-border actor interaction round?*
- 3. To what extent do the interaction types predicted by the theory correspond with the types of interaction found between the nature organizations?*
- 4. What are potential reasons for divergences and what are potential implications for the theory?*
- 5. What actor characteristics cause (non-) cooperative types of interaction according to the theory and what are recommendations for practice?*

5.2. Framework and Methods

For predicting the type of interaction the actors were divided into two-actor interaction rounds, so the interaction of each NGO with each other NGO was considered, provided that the NGOs were from different sides of the border. For this to work all the nature organizations were listed in the questionnaire. Therein the NGOs had to indicate whether they are aware of the actors from the other side of the border and whether they interact with each other, in the case that they indicated cooperation with a cross-border NGO they had to describe this cooperation in order to make up the type of interaction by the researcher. Thus the type of interaction was only indirectly indicated by the nature organizations. It would have been inconsistent for the nature organizations to indicate the types of interaction themselves as the understanding of those would have been different for each organization.

With the help of the actor characteristics the type of interaction was determined as the contextual interaction theory grants a prediction concerning the type of interaction based on the actor characteristics (Owens, 2008). This prediction always concerns the interaction between two actors, as the theory provides a two-actor interaction model. However the theory aims to assess the interaction process as a unit, so after having determined every type of interaction between the cross-border actors, the interactions were grouped in order to picture the whole cross-border interaction. The predictions concerning the type of interaction based on the measurement of the actor characteristics were compared with the types of interaction found between the nature organizations and thus the theory was tested as it was looked at whether the theory's predictions correspond with "reality". The central research question is explanatory as the relation between the theory's predictions and "reality" was examined and as it was looked at explanations for divergences. It is to point out that with "reality" it is referred to the subjective perception of the researcher's defined type of interaction according to the actors' indicated description of the interaction. This research is an explanatory case study (Yin, 2009), it should however be kept in mind that explanation demands description

beforehand. Therefore first of all the actor characteristics were laid down and the types of interaction were predicted; additionally problems referring to the actor characteristics and recommendations were given based on the absent characteristics. It is to point out that the theory when applied as a descriptive tool also suggests an explanation as being able to describe the actor characteristics means that interaction problems can be traced back to a lack of one or several actor characteristics which will be done in sub-question five. Before that the theories' predictions were compared with the types of interactions found between the nature organizations and potential divergences were explained while it was also looked at possible implications for the theory.

The research strategy can be described as a case study as this research is conducted in order to understand social, real-life phenomena (Yin, 2009); it seeks to explain the cooperation or non-cooperation between the nature organizations, as well as divergences between theory and "reality". More specifically the research design is to be specified as a single-case embedded design (Yin, 2009), involving one single case the cross-border cooperation of NGOs in the implementation of the Vechtetalstrategy and 10 embedded units of analysis, which represent the actor interaction rounds. Thus the units of analysis, the what or whom being studied (Babbie, 2010) are the cross-border actor interaction rounds of nature protection organizations. There are however multiple units of analysis as there are 10 interaction rounds and thus types of interaction to be specified, whereas the units of observation, the what or whom collected data about, are the nature protection organizations individually. In addition a mixed methods design is used (Yin, 2009); as a multiple case study as well as a survey is incorporated in this research.

There is also some room left for changes in the theory which is often specified as abduction; when abduction is applied by a researcher "a flexible attitude towards the connection between theory and data" is adopted (Vinke de Kruijff, 2013, p.17).

Before coming to the data collection and data analysis part it is shortly outlined according to which factor the types of interaction are valued. It is to mention that governance for sustainable development which involves the governance of common pool resources, to which this study belongs, requires cooperative interaction (Bressers, 2004). This indirectly implies that the more cooperative the type of interaction the more useful it is for governing the commons, as laid down more explicitly in the motivation and relevance of findings part. It is to point out that the types of interaction can be ranked and are thus ordinal. They can be ranked or valued, as the more cooperative types of interaction are more adequate for governing the commons, according to decreasing or increasing cooperative behavior and therewith according to level of cooperation, (Owens, 2008): (ranked from most cooperative and thus most adequate to least cooperative)

- Active cooperation
- Cooperation
- Learning towards
- Forced Cooperation
- No interaction/Learning towards (another situation will be created)
- Opposition
- Obstruction
- None

5.2.1. Data collection

The qualitative data was collected by a survey via the means of a questionnaire (Annex) which mainly involved open-end questions but also yes/no answer questions. New, thus primary data had to be gathered as there has not been any research on the cooperation of the nature protection organizations in the Vecht until now, and thus no directly applicable data was available. The questionnaires were distributed to the nature organizations via email in May 2013.

The sample consisted of representatives of all bigger nature organizations involved in the Vecht river basin and was therewith not randomly selected but a purposive sample as it did not include the whole population of nature organizations in the Vecht river but all major organizations outlined above. The cross-border actor interaction rounds were chosen on the basis of the actors' belonging to the Vecht river basin. It is to point out that the case study is not just a data collection method but as already indicated a whole research strategy which is also combinable with surveys as the methods are not mutually exclusive, Yin (2009) refers to this as mixed methods research. The questions were developed with the help of the contextual interaction theory and the focus on the above mentioned characteristics and their conceptualization. In addition there was some contact with the nature organizations before developing the questionnaires in order to get their consent for including them in the sample.

Documentary information was used which includes email correspondence, written reports and notes, as well as dissertations about the use of the contextual interaction theory (Owens, 2008; Vikolainen, 2012; Boer, 2012; Vinke de Kruijff, 2013). Furthermore archival records which incorporate maps of the Natura 2000 areas of the Vecht river basin were used as additional information (DHV & NWP, 2009); and the information retrieved from the survey questionnaires was used to a considerable extent. This can be specified as triangulation which in this case refers to the use of multiple sources of evidence, which creates "converging lines of inquiry" and thus makes the study findings more persuasive (Yin, 2009, p.115).

More specifically it is to point out, once again, that the Vechtalstrategy played, an important part, as did the pieces of information from the websites from the involved nature organizations and the official homepage of the Vecht river basin (INTERREG, 2009; Initiator Bestandsaufnahme, 2008; Die Vechte, n.d).

5.2.2. Data measurement and analysis

The independent variables motivation, cognitions and capacity and power were used to predict the dependent variable type of interaction. The actor characteristics measured in the questionnaire have been analyzed by making use of the contextual interaction theory. More specifically, it was looked at the actor characteristics of the different nature organizations which have been measured via the questionnaire. The incorporated questions can be distinguished according to the actor characteristic they measure. As all the characteristics are dichotomous, so they are either present (+) or absent (-), each question has, when answered by the organization, been marked with a plus or minus, adding those signs made it possible to distinguish between the different types of interaction, as the combination of the characteristics determines the type of interaction (Bressers, 2004) (Table2 Appendix). According to the theory, the motivation of both actors was measured, cognitions were only important of the

positive actor whereas capacity and power was seen in relation to the other actor studied. Motivation was still marked with a plus, when more than half of the question were marked as positive for motivation as there was no question seen to have a bigger scoring than the other questions, thus the positive and negative signs were counted and the one overweighing was indicated in the table. Concerning cognitions it was only important that one actor, the positive actor, knew about the other actor's existence and role in order to establish cooperation, so when the first actor knew about the second one but the second did not know about the first cognitions were still marked with a plus.

The different types of interaction include active cooperation which implies joint ambitions and goals, passive cooperation in which one actor is neutral which does not impede nor encourage the implementation of the project and forced cooperation in which actors are obliged to cooperate by one dominant actor (Owens, 2008; Bressers, 2004). Furthermore it can be distinguished between opposition, when application of the project is prevented by one actor, learning towards cooperation in which there is willingness to cooperate in the application of the project but there is a lack of information and no interaction at all (Bressers, 2004). Blatter (1997) says "symmetrical interests and values make cooperation easier and asymmetrical constellations are much more difficult to handle" (p.152/153), suggesting that the same interests and values are explanatory factors for the more cooperative types of interaction. As already mentioned the types of interaction can be ranked according to cooperative behavior, and thus can also be valued according to this; meaning that the more cooperative the type of interaction the better for governing the commons and the implementation of the Vechtetalstrategy. As cooperation between the nature organizations, the focal point of this research, is also part of the implementation of the Vechtetalstrategy.

5.3. Possible threats and validity considerations

First of all it is to mention that there are some threats when conducting a survey, there was the risk that the questionnaires were not returned (Babbie, 2010), this was reduced by contacting the respondents in advance and asking them for including them in the sample. In addition one of the aims of this research giving recommendation for improving their interaction was also in the interest of the natural protection organizations, thus it was also adjuvant for them to answer the questionnaire. Nevertheless there is always a risk remaining, that the questionnaires are not returned. However this was not the case. Internal validity relates to the extent it can be said that the dependent variable is caused by the independent variables and not some other factors (Gerring, 2012; Babbie, 2010). Some threats to internal validity are that the nature organizations did not fill out the questionnaire according to the truth or properly but this was also reduced by the aim of the study. In addition there was the possibility that the questions were understood wrongly or that the answer did not fit to the question because of misunderstanding, which was however reduced by using one NGO as a pilot respondent, meaning that the questionnaire has been send to one actor before the others received the questionnaire in order to make sure that the questions were clear. Furthermore the questionnaire was send to each respondent only once, even to the pilot respondent as every question was clear, thus testing effects are not a threat to internal validity, neither are instrumentation effects as there was no change in measurement. Selection bias is no serious threat as all the bigger nature organizations which represent the smaller ones were included.

As this study is made at one moment in time, so a single point in time research, maturation as well as history are no threats to internal validity. So concerning internal validity no essential threats were found and thus it is likely that the findings reflect the true causal relationship between the independent variables, the actor characteristics and the dependent variable, type of interaction.

As case studies are generalizable only to theoretical propositions and not to samples or universes (Yin, 2009) it can be said that the method from the theory can be generalized and is thus applicable to other cases however the results of this case study and its implications for the theory's generalization have to be tested in similar case studies. Thus regarding external validity it can be said that it is fulfilled to a sufficient extent

Coming more explicitly to the reliability of the study which relates to the fact that a similar result would have been achieved by using a different measurement, it is to say that no statement can be made as this study has not been executed with a different measurement. Risks that concern the embedded single case study are that it is only focused on the subunit level whereas it is failed to look at the larger unit of analysis (Yin, 2009). As it is not only looked at the individual interaction rounds but also on the bigger picture, thus the whole civil cross-border cooperation, this risk does not apply in this research. Next the analysis of the data is presented.

6. Analysis

The analysis is divided into five parts according to the respective five sub-questions. First of all the actor characteristics of the different nature organizations are described and therewith, secondly, the types of interaction determined. Thirdly the by the theory predicted types of interaction are compared with the types of interaction found between the nature organizations. Afterwards reasons for incompatibility and implications for the theory are named, while lastly problems referring to the actor characteristics and recommendations for improving the type of interaction are given.

6.1. Description of the actor characteristics

The first part of the analysis deals with the first sub-question which is “*what are the actor characteristics (motivations, cognitions and power) of the different nature organizations?*”.

Concerning the first actor characteristic motivation related to the application of the Vechtetalstrategy or Ruimte voor de Vecht which demonstrates the broader context in this study, it is to say that in general all the organizations think they benefit from the implementation and are willing and motivated to apply this project, as the implementation of the strategy is also in their interest.

Going more into detail it was found out that regarding the German actors, the NABU is not as motivated as the BUND, since they fear that due to the Vechtetalstrategy tourism is given priority which could destroy some protectable parts of the river (Questionnaire NABU, 2013). The Dutch actor, Vereniging Natuur en Milieu de Vechtstreek indicated that the Vechtetalstrategy totally fits their goals and interests whereas the motivation of de Koppel is a bit constrained because it is afraid that recreational and agricultural goals of the Vechtetalstrategy may compete with natural goals. It is to point out that these fears can also

deliver an important incentive for the nature organizations to work together which will be outlined more in the last part of the analysis.

However all the German and Dutch actors think that it is urgent to implement the Vechtetalstrategy which is motivating and almost no actor has the feeling that it is pressured to implement the strategy as it is also their own choice and not a mandatory policy. De Koppel feels pressured however not in a negative sense which is thus also motivating.

Nevertheless almost all the actors feel that it is their duty to implement the strategy, which is an additional incentive. Furthermore all the organizations think that the Vechtetalstrategy or Ruimte voor de Vecht is realistic and thus implementable which also improves their motivation for applying the strategy.

Most importantly referring to the focal point of this research, namely cooperation, every actor felt that it is pivotal for the Dutch and German nature organizations to work together cross-border in order to successfully implement the strategy which is an essential motivation for cross-border cooperation. Additionally no obstacles for cross-border cooperation were pointed at by the nature organizations for the studied interaction rounds.

Coming now to the actor characteristic cognitions it is to say that the actors have information about the policy but mostly lack enough information about the cross-border organizations' existence and almost always also role which makes cooperation impossible.

The German actors possess information about the policy, its' requirements and benefits however concerning the existence of the other actors, the BUND indicated to know about the names of the actors but not about the cross-border actors' role, however it is to mention that the BUND knows about de Koppel and also had some contact, whereas the NABU neither knows about the Dutch actors' existence nor role.

The Dutch actors also have information about the policy, its' requirements and benefits, so enough information to apply the policy. The KNNV (Koninklijke Nederlandse Natuurhistorische Vereniging) as well as Vrienden van Dalfsen know about the existence of the NABU but not due to its' action in the Vecht river basin, and thus it cannot be claimed that they possess information about the actors. De Koppel knows about both German actors' existence and role in general, whereas the Initiatiefgroep Ijssel Vechtdelta does not know about the NABU but about the BUND's existence and role and the Vereniging Natuur en Milieu de Vechtstreek does not know anything about the German actors.

Referring to the last actor characteristic capacity and power, it is to mention that in general the actors do not possess enough resources to apply the strategy and therewith cooperate.

The BUND lacks enough financial means, in addition it was mentioned that there is the need to adopt measures in a shorter time span which is however not possible until now due to the lacking connections with other actors (not NGOs) implementing the Vechtetalstrategy. The NABU also lacks financial as well as personnel resources, it also pointed at legal obstacles that hinder important ecological measures on the German side of the border.

Almost no actor thinks that they possess more means than other nature organization besides De Koppel which however also misses enough financial and personnel means. However they think that they have more resources than other organizations which is necessary to fulfill their educational goals.

The Initiatiefgroep does not feel that it is lacking resources to apply the strategy, neither does the Vrienden van Dalfsen nor KNNV, whereas the Vereniging Natuur en Milieu de Vechtstreek feels that it lacks financial and personnel means.

Concerning dependency on other actors the BUND mentioned that political volition on the local level is mostly not strong enough, the NABU said that they are dependent on water boards and the chamber of agriculture, whereas de Koppel is dependent on companies, the local government and other NGO's, as well as tourists.

The KNNV and Vrienden van Dalfsen did not mention that they are dependent on any other actor which may also be due to their advice role.

The Initiatiefgroep indicated that it is dependent on the province Overijssel as well as Waterschap Velt en Vecht, as did the Vereniging Natuur en Milieu de Vechtstreek in addition to the municipality and additional water boards.

The actor characteristic capacity and power is seen in relation with the other NGOs, there is no NGO that possesses more power; however as argued later not power but capacity is more important to predict cross-border cooperation.

6.2. Types of interaction

Now it is proceeded with the second sub-question which is "*what type of interaction is predicted by the theory in each cross-border actor interaction round?*". It is to say that the types of interaction found are outlined in the interaction tables (Appendix Table 3), in which it is also indicated which actor characteristic is present or absent and therewith the type of interaction determined according to Table 2 (Appendix).

Mostly the type of interaction predicted by the theory was learning towards, thus a quite cooperative type of interaction. In three interaction rounds, the most cooperative type of interaction, active cooperation was predicted.

6.3. Comparison theory's predictions with "reality"

Next it is dealt with the third sub-question which is "*to what extent do the interaction types predicted by the theory correspond with the types of interaction found between the nature organizations?*".

As outlined in the former sections the predicted types of interaction were mostly learning towards, whereas the types of interaction found between the nature organizations were that there is no interaction. In three interaction rounds active cooperation was predicted, whereas the analyzed indication of the organizations pointed once at learning towards and the other two times no interaction was found. Thus the predicted type of interaction did not correspond in any interaction round with the descriptive indication of the nature organizations.

In general one can say that the theory's predicted types of interaction were more cooperative than the types of interaction indicated by the nature organizations' descriptions.

Reasons for why this may be so, as well as suggestions for making the theory's predictions conforming more to "reality", are outlined in the next section.

6.4. Incompatibility reasons and implications

In this section the fourth sub-question is answered which is “*what are potential reasons for divergences and what are potential implications for the theory?*”.

First of all it is to say that the actors rather judge the type of interaction in a way that when they do not have contact with the other organization or are not working together in the sense that they have common actions or even do not know about the organization, it is likely that they indicate that there is no interaction between them; however according to the theory no interaction only develops when both actors are not motivated which is not the case, whereas learning towards is rather the applicable type of interaction which demonstrates the “reality” but is also a type of interaction in which the actors do not have contact as they do not have enough cognitions. However the questionnaire was developed in a way that the nature organizations first of all had to indicate whether they are interacting or not as for all the other types of interaction besides learning towards, interaction or contact is implied and thus only in the case that they indicate interaction with other organizations, they also have to describe the interaction with which the type of interaction is determined by the researcher. But as only the organizations in one interaction round said that they are interacting with another, this was rarely applicable. Thus for the other interaction rounds learning towards would have been applicable as their type of interaction as well. In this regard divergences were not due to the theory but due to the questions asked in the questionnaire. As it is to point out that when “reality” would have indicated learning towards, the theory’s predictions would have corresponded with “reality” in almost every interaction round.

However concerning the theory, it should be considered not to look at the power in the interaction rounds but only at the capacity of the actors, meaning at both actors’ financial, personnel and time resources individually, as both actors need enough resources to apply the policy which is also one of the reasons why the implementation of the Vechtetalstrategy is initiated so slowly and therewith no cross-border cooperation to be found. In addition no relational setting in the interaction rounds is found, which is an indication for the fact that resources as a source of power, are not relevant in this study (Bressers, 2009). Thus resources relating to the capacity to act are much more important in predicting interaction. Therefore it is likely that some changes also in the determination of the type of interaction are appropriate as it has to be looked at both actors capacity individually, as no power relation is found between the actors which is also due to the equal role of the nature organizations even in the bigger actor constellation that is involved in the implementation of the policy.

A change in the theory would imply that when both actors have enough resources to act and are motivated as well as possess information the type of interaction will be active cooperation as predicted before, however in more phases the type learning towards would develop, as forced cooperation and obstruction are not types of interaction that can be predicted when it is only looked at the capacity and not power. Opposition would still develop when one actor is motivated whereas the other not, they have information about each other and both have enough resources. It could look similar to this:

Motivation Actor 1	Motivation Actor 2	Information	Capacity Actor 1	Capacity Actor 2	Type of interaction
+	+	+	+	+	Active cooperation
+	-	+	+	+	Opposition
+	+	-	+	+	Learning towards
+	+	+/-	-	+/-	Learning towards
-	-	-/+	-/+	-/+	No interaction

So all the actor characteristics are needed for active cooperation to develop, if one actor is not motivated but all the other actor characteristics are present, opposition will develop, whereas when both actors are motivated however one or both are missing either information or resources the type of interaction will be learning towards. Lastly when both actors are not motivated it does not matter if they possess the other characteristics or not the predicted type of interaction will be no interaction. It is to point out that after this new scheme all predicted types of interaction would be learning towards, as in every actor interaction round, either cognitions and/or capacity are lacking.

As already indicated in the description of the actor characteristics, cognitions were also marked with a plus when in one interaction round only one actor, the positive motivated, indicated to know about the other actor's existence and role as it is enough for cooperation to develop.

Concluding it is to say that the actor characteristics are very important variables in predicting interaction, as it was also shown by Owens (2008) that all potential variables predicting interaction processes can be directly related to one of the three actor characteristics, however in this study no power relation between the actors is found also due to their equal role, which makes the individual actors' capacity much more important.

6.5. Problems and recommendations

The last section deals with the fifth sub-question which is "*what actor characteristics cause (non-) cooperative types of interaction according to the theory and what are recommendations for practice?*". The question was divided into two parts while it was first of all looked at the actor characteristics that bring about non-cooperative types of interaction, and secondly it was referred to recommendations for practice based on the missing actor characteristics.

Mostly it was found that the actors' lack enough capacity to act, more concretely they mostly lack enough financial as well as personnel means. In addition the organizations are dependent on the political volition regarding nature protection, as well as on other actors like water boards or companies. Furthermore this research revealed that the organizations lack cognitions in the form of the respective cross-border actors' role and often also lack knowledge concerning the cross border actors' existence. Without this knowledge active

cross-border cooperation between these actors cannot be established. The other way around it is to say that the actors do not lack motivation thus no measures that concern the increase of motivation have to be taken.

Concerning recommendations it is to say that the actors should first of all get to know each other and get in touch, by for example making a round with Dutch and German nature organization representatives and discuss what needs to be done urgently with regard to the Vecht river basin and how to implement the strategy. As every actor thinks that there is a need for action, there is a good basis for further negotiation. More important, for developing cross-border interaction is the fact that all actors agree that cross-border cooperation is necessary for successfully applying the policy which is also in the interest of all the actors.

If the nature organizations work together they are stronger and political and legal hurdles probably easier to diminish, as the EU is also interested in establishing and improving cross-border cooperation and supports cooperation with funds and programs as also already this project (Blatter, 1997). In addition doubts mentioned by the organizations which relate to the fear that tourism or agricultural goals will be given priority can also stimulate cooperation between the nature organizations, as they have similar goals and are stronger when they cooperate. Coming more specifically to missing resources like financial or personnel means, it is to mention that the Dutch country wants to cut spending on nature protection, therefore it should be tried to get more donations from private people and also to get more volunteers, by making people aware of their actions' urgency and especially people that are living in the area around the Vecht would also have advantages from supporting the nature organizations. So it is important to make the people aware of that in order to get more support from them. Nature organizations are also dependent on for example water boards, which will be impossible to change however also not necessary, as one could try to make the link between this vertical relationship stronger as both actors can also support each other in their goals. Waterboards mainly want to ensure a high quality of water which is also in the interest of the nature organizations. Thus most probably some problems can also be solved by developing stronger ties between the Dutch and German nature organizations as well as getting more support from private people; which both can only evolve when the lack of information about each other as well as for private people is filled.

Nevertheless there is the question why they do not cooperate if the actors on both sides of the border think it's beneficial for them, it could well be that cooperation is just around the corner and they need an additional stimulus to finally cooperate which this research could deliver, as it was also found out that the organizations can determine with whom they want to cooperate and do not have to ask for approval.

It is to point out that of the organizations in the Vecht, most probably not all will be cooperating as the Dutch organizations are very fragmented and diversified; there are a lot of nature organizations belonging under the ones studied, meaning that they have a lot of smaller nature organizations for diminutive purposes and thus it is a bit more difficult for the German organizations to work together with all of them. Related to that cooperation could be hampered by the fact that the German nature organizations are located on the circle level (Kreislevel), this is higher than the Dutch local level on which the Dutch organizations are located. Nevertheless all the actors studied will have a role in the implementation of the strategy and therewith cross-border cooperation, de Koppel with its educational purpose, can

for instance deliver an important support in making the people aware of the importance of nature preservation and therewith gain support from them. Similar the advice givers will have a role, as the KNNV and Vrienden van Dalfsen also advise the Province Overijssel in their actions; comparable to the NABU which gives advices and does not take direct action whereas all the other organizations not mentioned in this section rather take direct action. Thus every organizations of these studied can deliver an important input in developing cross border interaction in the Vecht river basin. It is to clearly point out that the knowledge and impact of each nature organization is important. Nevertheless it is essential that the nature organizations get to know each other and thus the first and most important step is developing contact with each other, which can also lead to a new distribution of tasks or roles.

There are some examples of cross border cooperation of the actors studied to mention, de Koppel already had some contact with German schools and with a German animal park, which shows that there is also motivation to work cross-border although no cooperation with nature NGO's concerning the natural goals of the Vechtetalstrategy developed until now but concerning educational goals of the strategy. However some language problems were experienced in this interactions. In addition an organization under the umbrella organization de Koppel, named "Stichting Vloevelden De Krim" which mainly deals with breeding sites for birds, works together with a German organization to develop the bird habitats in Münster. They did not experience any obstacles, which is a good and motivating example showing that cross-border cooperation concerning common pool resources can work.

Lastly a conclusion will be drawn, summarizing the most important findings, while also looking at limitations as well as future research.

7. Conclusion

7.1. Research question

So to come to a conclusion concerning the central research question "*what types of interaction can be found between the nature organizations in the Vecht river basin and to what extent do the types of interaction predicted by the theory correspond with the interaction responses of the nature organizations?*", it is to say that the types of interaction predicted by the theory were mostly learning towards with the exception of three interaction rounds in which active cooperation was predicted, whereas the actors always indicated that there is no interaction and in one interaction in which active cooperation was predicted learning towards was found. So the predictions of the theory did not correspond with the types of interaction found between the nature organizations.

However some reasons for the divergences between the theory's predictions and "reality" were found, first of all the questionnaire was developed in a way that there was almost no chance for the nature organizations to descriptively indicate learning towards which unlike the other types of interaction does not imply contact between the organizations and secondly the actor characteristic capacity of each organization has to be seen as pivotal in this research. Studies similar to this one in which no power relation is found between the actors, as they cannot be divided into the target and implementer due to their equal role, the characteristic capacity is much more important in understanding interaction. In addition the theory is used

beyond its' usual domain which relates to the application of a policy whereas in this study it is mainly focused on cross-border cooperation which is different as the actors are from two sides of the border. Concerning the whole civil cross-border cooperation it is to say that so far no cooperation has been developed and thus still has to be established in order to govern the common pool resources in the Vecht river basin more properly. In order to achieve this the nature organizations will have to get to know each other which when leading to cooperation will most probably also lead to a solution of the other problems found in the interaction which relate to too high dependency on other actors on a different level, as well as missing financial and personnel resources which can also be fixed by getting more support from private people. Concerning concrete cooperation which relates to the conservation and extension of nature protection areas which was low at the initiation of the strategy, it is to say that also in this regard cooperation has not been established. However maybe cooperation is just around the corner and an additional stimulus like this research is sufficient for cross-border cooperation to evolve, as it probably also makes the organizations thinking as to why they are not cooperating or putting some additional effort to that.

7.2. Limits of the study

A main limitation of this research relates to the fact that it was only looked at horizontal civil cooperation so at just one part of the whole cross-border cooperation. Moreover not all nature organizations in the Vecht river basin were directly studied as de Koppel for example is an umbrella organization which also incorporates 12 smaller nature organizations but thus still represents them in this study. Additionally the fact that the nature organizations did not directly determine the type of interaction which could however also have lead to some problems as the determination would not have been consistent, could provide a limitation of this study as the nature organizations just described the interaction and the type of interaction was determined by the researcher which however gives consistency. Lastly the questionnaire in general is a limitation as interviews would probably have been a better source to get a deeper insight in the situation.

7.3. Future research

First of all future research should involve more actors not only the relationship between nature NGOs horizontally but the whole cross-border cooperation, thus the horizontal as well as vertical link between the private, civil and public organizations, as it has been seen that they are interconnected meaning the NGOs are dependent on for instance public organizations and it is also important to know about the links with the other organizations. As Berkes (2008) said that it is essential to understand the scale and institutional linkages in multilevel governance of the commons, so not only the links between the civil organizations but also between the private and public organizations as well as among these.

The Netherlands as it is the downstream riparian country is the main injured party of cross-border pollution whereas Germany is the upstream country and therefore not that endangered when it comes to pollution (Lindemann, 2008). It would be interesting to know whether this has an impact on cross-border cooperation, meaning that the Dutch part does more action regarding water quality and against water pollution.

Literature list

Babbie, E. (2010). *The Practice of Social Research*. Wadsworth: Cengage Learning.

Berkes, F. (2008). Commons in a Multi-Level world. *International Journal of the Commons*, 2 (1), pp. 1-6.

Blatter, J. (1997). Explaining crossborder cooperation: A border-focused and border-external approach. *Journal of Boderland Studies* 12, (1 & 2).

Boer, C. (2012). Contextual Water Management – A study of governance and implementation processes in local stream restoration projects. Enschede, *University of Twente*.

Boer, C. and Bressers, H. (2011). *Complex and Dynamic Implementation Processes – The renaturalization of the Dutch Regge River*. Enschede, University of Twente.

Bressers, H. (2004). Implementing sustainable development: How to know what works, where, when and how. In: *Governance for Sustainable Development: The Challenge of Adapting Form to Function*, William M. Lafferty (Editor), Cheltenham: Edward Elgar, pp. 284-318.

Bressers, H. (2009). From public administration to policy networks: Contextual interaction analysis. In: Stéphane Narath and Frédéric Varone (eds), *Rediscovering public law and public administration in comparative policy analysis: a tribute to Peter Knoepfel*, Lausanne: Presses polytechniques et universitaires romandes & Berne: Haupt Verlag, pp. 123-142

Coenen, F. and Lulofs, K. (2007). Cross Border Co-operation on water quality in the Vecht River Basin. In: Verwijmeren, J. & Wiering, M. (Eds), *Many rivers to cross: Cross border co-operation in river management*. Delft: Eburon, pp. 71-93.

DHV and NWP (2009). Themakaart Natuur. Retrieved 12th of May from http://www.dievechte.eu/Portals/744ae193-0ab2-41d0-97f9-b58b1d20d5af/Documenten/Themakaart_natuur_090527.pdf

Die Vechte (n.d). Grenzüberschreitende Vechtetalstrategie. Retrieved 26th of March from <http://www.dievechte.eu/>

Gerring, J. (2012). *Social Science Methodology – A unified framework*. Cambridge: Cambridge University Press.

European Commission (2013). Natura 2000 network. Retrieved 12th of May from <http://ec.europa.eu/environment/nature/natura2000/>

Initiator Bestandsaufnahme (2008). Eine neue Strategie für die Vechte – Bestandsaufnahme. Retrieved 26th of March from http://www.dievechte.eu/Portals/b132cd5f-5a2d-4d37-b594-7be95fd688c2/Documenten/Bestandsaufnahme_Grenz%C3%BCberschreitende_Vechtetalstrategie_M%C3%A4rz_2008.pdf

INTERREG (2009). Die Vechte – ein grenzloser, lebendiger Fluss : Grenzüberschreitende Vechtetal-Strategie. Retrieved 26th of April from http://devecht.eu/Portals/744ae193-0ab2-41d0-97f9-b58b1d20d5af/Documenten/D_Vechtvisie_internet.pdf

Lindemann, S. (2008). Understanding Water Regime Formation – A Research Framework with Lessons from Europe. *Global Environmental Politic*, 8 (4), 117-140.

Mankiw, N.G. and Taylor, M.P. (2006). *Microeconomics*. London: Thomson Learning.

Ostrom, E. & Burger, J. & Field, C.B. & Norgaard, R. B. & Policansky, D. (1999). Revisiting the commons: Local Lessons, Global challenges. *Science*, 284, pp.278-282.

Owens, K.A. (2008). Understanding how actors influence policy implementation – A comparative study of wetland restorations in New Jersey, Oregon, the Netherlands and Finland. Enschede, *University of Twente*.

Vikolainen, V. (2012). Nature at work – The feasibility of Building with Nature projects in the context of EU Natura 2000 implementation. Enschede, *University of Twente*.

Vinke de Kruijff, J. (2013). Transferring water management knowledge – How actors, interaction and context influence the effectiveness of Dutch-funded projects in Romania. Enschede, *University of Twente*.

Wiering, M., Lulofs, K., Verwijmeren, J. and Feld, C (2010). Experiences in Regional Cross Border Co-operation in River Management. Comparing Three Cases at the Dutch-German Border. *Water resource manage*, 24 (11), 2647- 2672.

Yin, R.K. (2009). *Case study Research: Design and Methods*. California: Sage Publications.

Appendix

Table 1

Conceptualization Motivation
Compatibility of strategy objectives with interest of organization
Attitude towards the implementation objective
Sense of urgency of implementation
Implementability of Strategy
External pressure
Presence of obstacles
Self-effectiveness related to capacity

Conceptualization Cognition
Presence of information about existence of strategy and its benefits
Knowledge of role in strategy, requirements of strategy
Presence of information about existence and role of other nature organizations

Conceptualization Capacity and Power
Presence of resources – finances, personnel, knowledge and time
Dependence on other actors
Assessment of responsibility and own resources

Table 2

Motivation Actor 1	Motivation Actor 2	Information	Balance of Power	Outcome
+	+	+		Active cooperation
+	0	+		Cooperation
+	-	+	- (positive actor dominant)	Forced cooperation
+	+/0	-		Learning towards
+	-	-		No Interaction, create another situation
+	-	+	- (negative actor dominant)	Obstruction
+	-	+	+	Opposition (can take form of negotiation or conflict)
-/0	-/0	+/-		None

Balance of power → - unequal so one dominant actor; + about equal balance of power
0 = neutral

None interaction always develops when both actors do not have motivation or are neutral.
It is to point out that the balance of power is not important in the determination of every type of interaction.

Questionnaire

Name of your organization:

Questions:

1. What are your primary goals/interests in nature protection?

2. What are your goals/interests specifically for the Vecht river basin?

3. Are you familiar with the Vechtetalstrategy (Ruimte voor de Vecht)? And the implied projects?

YES

NO

ONLY ANSWER NEXT QUESTIONS (4-22) IF YOU ARE AWARE OF THE VECHTETALSTRATEGY (= RUIMTE VOOR DE VECHT)

4. Do you know about the benefits of the Vechtetalstrategy?

Yes

NO

5. Is the Vechtetalstrategy in line with your interests?

YES

NO

If not why?

6. To which degree does the application of the Vechtetalstrategy contribute to your goals and interests? On a scale from 1 to 10 (1 lowest degree, 10 highest)
Please choose

7. How urgent do you think is it to implement the strategy?
On a scale from 1 to 10 (1 means not urgent at all, 10 means very urgent)
Wählen Sie ein Element aus.

8. Do you think the strategy is realistic, thus implementable?
YES NO

If no why do you think so?

9. Were you involved in developing the Vechtetalstrategy?
YES NO

10. Do you know about your role concerning the application of the strategy?
YES NO

Are you aware of potential requirements for application of the strategy?
YES NO

11. Do you feel like you have enough finances, personnel, knowledge and time to adopt the Vechtetalstrategy?
YES NO

If not what are you lacking?

12. Do you think you are dependent on any other actor concerning resources?
YES NO

IF yes from whom?

13. Do you think you have more resources at your disposal than other nature organizations?
YES NO

IF yes, do you think you have a bigger responsibility in applying the strategy?
YES NO

14. Do you think the Vechtetalstrategy benefits cross-border cooperation?

YES

NO

Why do you think so?

15. Do you know about the cross-border NGOs that work in the Vecht river basin on the other side of the border?

YES

NO

If yes about which ones?

List of German actors (nature protection organizations) in the Vecht river basin

Dutch actors

Nature organizations under the Groen Platform:

1. De Koppel, Hardenberg
2. Vereniging Natuur en Milieu De Vechtstreek, Ommen
3. Vrienden van Dalfsen, Dalfsen
4. Koninklijke Nederlandse Natuurhistorische Vereniging, Zwolle
5. Initiatiefgroep Ijssel-Vechtdelta, Dalfsen-Zwolle

German actors

1. NABU
2. BUND

16. Do you work together with any cross-border NGO from the list above?

YES

NO

If yes which ones?

If yes please describe the cooperation

17. Do you work together with any other cross-border NGO not listed above?

YES

NO

If yes which one?

PLEASE ONLY ANSWER IN CASE OF CROSSBORDER COOPERATION

(QUESTION 18+19)

18. Are there any obstacles you have encountered while cooperating with other nature protection organizations cross-border?

YES

NO

If yes which obstacles?

19. Have you experienced any other problems that make cross-border cooperation more difficult?

YES

NO

IF yes which ones?

20. Do you feel it is your duty to participate in the strategy?

YES

NO

Why do you feel so?

21. Do you feel pressured to take part in the Vechtetalstrategy?

YES

NO

If yes by whom? An actor included in the list?

22. Do you think it is important for the NGOs to cooperate cross-border for achieving the goals of the strategy?

YES

NO

Why or why not?

PLEASE ANSWER IN ANY CASE

23. Does your organization cooperate with a crossborder organization on an individual basis not within the scope of the Vechtetalstrategy?

YES

NO

IF yes, please describe

Table 3 Types of interaction

1. Interaction BUND – De Koppel

Motivation BUND	Motivation De Koppel	Cognitions	Capacity and power	Predicted Type of Interaction	Indication NGOs
+	+	+	/	Active cooperation	Learning towards

2. Interaction BUND – Vereniging Natuur en Milieu De Vechtstreek

Motivation BUND	Motivation Vereniging	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	-	/	Learning towards	No Interaction

3. Interaction BUND – Vrienden van Dalfsen

Motivation BUND	Motivation Vrienden	Cognitions	Capacity and Power	Predicted Type of interaction	Indication NGOs
+	+	-	/	Learning towards	No interaction

4. Interaction BUND - Koninklijke Nederlandse Natuurhistorische Vereniging

Motivation BUND	Motivation KNNV	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	-	/	Learning towards	No Interaction

5. Interaction BUND - Initiatiefgroep Ijssel-Vechtdelta

Motivation BUND	Motivation Initiatiefgroep	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	+	/	Active cooperation	No interaction

6. Interaction NABU – De Koppel

Motivation NABU	Motivation De Koppel	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	+	/	Active cooperation	No interaction

7. Interaction NABU - Vereniging Natuur en Milieu De Vechtstreek

Motivation NABU	Motivation Vereniging	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	-	/	Learning towards	No interaction

8. Interaction NABU - Vrienden van Dalfsen

Motivation NABU	Motivation Vrienden	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	-	/	Learning towards	No interaction

9. Interaction NABU - Koninklijke Nederlandse Natuurhistorische Vereniging

Motivation NABU	Motivation KNNV	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	-	/	Learning towards	No interaction

10. Interaction NABU - Initiatiefgroep Ijssel-Vechtdelta

Motivation NABU	Motivation Initiatiefgroep	Cognitions	Capacity and Power	Predicted Type of Interaction	Indication NGOs
+	+	-	/	Learning towards	No interaction