

The Baltic sea and EU environmental policy

An implementation study

Abstract

The Baltic Sea is a common in an international system. As the prisoners dilemma and the tragedy of the commons show, there are special problems connected to the protection of commons. The Baltic Sea suffers from eutrophication, and a cooperation between the states bordering to it is necessary to stop it. Can the EU overcome the problems of the commons, and coordinate the environmental protection of the Baltic Sea? I have looked at both the EU system and the legislation that concerns eutrophication, to evaluate how well these are suited for achieving the goal of protecting the environment of the Baltic Sea. I have used implementation and steering theories to analyse the EU directives. This analysis shows that the main problems are that the directives partially are formulated in such a vague way, that it makes it possible for the member states to interpret them to freely. The other main problem concerning the EU system is that the it has problems controlling the member states implementation of the directives. Despite these problems, most states seem to follow the directives. The EU system should be able to save the common – if he member states want this.

Keywords: Commons, implementation, eutrophication, Baltic Sea, EU

Content

1	Introduction	1
1.1	The environmental problems of the Baltic Sea	1
1.2	The Baltic Sea – an international common	1
1.3	Aim	4
2	Methodology	5
2.1	Theoretical framework	5
2.1.1	Implementation theory	5
2.1.2	Steering Theory	7
2.1.3	Implementation and steering in a supranational system	8
2.2	Material	10
2.3	Method	11
3	The judicial system of the EU	14
3.1	The foundation of the judicial system of the EU	14
3.2	The European Court of Justice	14
3.3	Control	15
3.4	Legal documents	16
4	Directives, implementation & control	17
4.1	The Urban Waste Water Treatment Directive	17
4.1.1	Main measures	17
4.1.2	Monitoring of implementation	20
4.2	The Nitrates Directive	21
4.2.1	Main measures	21
4.2.2	Monitoring of implementation	23
4.3	The Water Framework Directive	24
4.3.1	Main measures	24
4.4	Control of the implementation by the Commission	25
5	Summary and Conclusions	27
6	References	30

1 Introduction

1.1 The environmental problems of the Baltic Sea

The Baltic Sea is troubled by different environmental problems of which eutrophication is considered to be the biggest one (naturvårdsverket webpage). Nitrogen from agriculture and wastewater from cities and industries drains into the water of the Baltic Sea causing eutrophication.

Eutrophication literally means enrichment of nutrients, but usually refers to a complex process of interlinked events that take place in the aquatic environment. Eutrophication begins with the excess input of nutrients to the water. The large amount of nutrients in the water causes an accelerating growth of algae and other forms of plant life. The most visible sign of eutrophication is the phenomenon called algal bloom. Algal bloom is the rapid reproduction of algae that takes place during a limited period. This is a natural phenomenon, but turns into a problem when it happens too often and during too long time periods. Too much algal bloom has different negative effects on the environment of the sea. The large amount of algae causes turbid water that does not let the sunlight through to other plants growing further down. When the huge amounts of algae that has been created during an algal bloom die, it needs a lot of oxygen to decompose. This leads to oxygen lack in the water which harms animal and plant life. The large amount of dead plankton and algae that fall to the bottom also contribute to sedimentation of the bottom. Thus, eutrophication has a large impact on the whole ecosystem of the sea. In the Baltic Sea nitrogen is the nutrient that contributes mostly to the growth of algae, and therefore constitutes the biggest threat for the environment of the Baltic Sea (BOING web).

1.2 The Baltic Sea – an international common

Nitrogen compounds drain into the Baltic Sea from all different states surrounding it. Therefore the problem of eutrophication cannot be solved by one single state unilaterally. This means that international cooperation and agreements are needed to stop the eutrophication. International cooperation can be complicated, and there are certain problems connected to it. In this section I will show some of the biggest problems concerning international cooperation.

The Baltic Sea is not owned by any single state, and thus is a common situated in the international system. It is used by all the states bordering to it and therefore is a classical example of a common. I will discuss some problems that exist in relation to the management of international commons. I will begin with the “tragedy of the commons” theory developed by Garrett Hardin in the late 1960s.

The tragedy of the commons theory concerns the problems of overexploitation of common resources. The original example of a common given by Hardin is a pasture where herdsmen keep their sheep. Each herdsman will try to get as much out of the pasture as possible through keeping as many sheep as he can there, even if this in the long run leads to the degradation of the pasture. Hardin claims that this is so because each actor using the common gains the benefits from this action, while the price for using the common is shared by all actors using it. Therefore it is rational for the individual herdsmen to use the common as much as he can (especially since he knows that even if he chooses not to use the common as excessively, some other herdsman might do it instead) (see Hardin 1968).

Game theory is used to analyse situations where two or more actors are affected by each others actions. It analyses how different actors choose to behave in a situation where the outcome of their actions is affected by how other actors choose to behave - and where the actor has some idea about how the other actors will behave. Game Theory thus, is used to analyse how an actor will behave in a situation where his actions are interdependent of the decisions of other actors (Hargreaves and Varoufakis 2004 p 3). Game Theory assumes that actors have preferences and act in a way that corresponds to these preferences - each actor is rational and calculates which action best matches it’s preferences. Each actor will therefore choose the action that it considers most beneficial considering it’s preferences (ibid p 7-8).

The “prisoner’s dilemma”, invented by Albert Tucker in the 1950s, is the most famous parable in Game Theory. It is a parable that show how individual actors acting in a way that is rational for them individually, might lead to a “sub optimal” outcome on the collective level. The general outlines of the prisoners dilemma parable is that two prisoner’s have been caught for a crime, and if and what each actor confesses, will affect what punishment they both get. Both actors know what will happen if they confess, deny or blame on the other. There is one option that would make them both free, but since they have no contact with each other they cannot depend on this option since they don’t know that the other part will it.

Liberal theory has used both the prisoners dilemma theory and game theory to explain the behaviour of states in the an anarchic system. The prisoners dilemma shows how it can be rational for a state to choose an action that on the individual plane is rational, but on the collective level is irrational, and leads to and suboptimal outcome. States can benefit from cooperation, but the cooperation can shatter by lack of trust for the other states. The establishment of regimes is seen as a possible solution to this problem. Once states have a functioning regime, they have little reason to go stop the cooperation (Little 2005 p 380)

The prisoners dilemma and the tragedy of the common show, that lack of trust and “free riding” are two problems that can hinder the cooperation between

actors. Both these problems are interesting to look at in relation to the EU environmental work in the Baltic Sea area. Lack of trust and the phenomenon “free riding” can be connected to each other, since lack of trust can be based on the fear that other actors will choose to free ride.

When a group of actors decide to go for a common strategy, or create an agreement, trust is essential for the success of putting it through. If the actors lack trust for each other, they can fear that other actors will abstain from fulfilling their part of the agreement. This lack of trust for the other actors can lead to a lesser incitement to fulfil the agreement for the actors. One of the reasons that an actor choose not to follow an agreement, or a common strategy, is that free riding might seem more beneficial. Free riding occurs when an actor can gain the benefits of other actors doing a certain action without doing the action itself. (Hargreaves and Varoufakis 2004 p 176-177). Free riding can occur in the environmental work of the EU too. Here free riding occurs when a state chooses not to implement the directives, but still harvests the gains that come of the other states political efforts.

Both the tragedy of the commons parable and Game theory show that there are problems connected to commons, and these are no lesser if the common is international. In the case of the Baltic Sea it is not only a matter of using the common by harvesting or taking something out, of it like in Hardin’s parable of the pasture. The Baltic Sea is used in many different ways, and the main value that it provides is perhaps the value of a healthy ecosystem. All states surrounding the Baltic Sea should have an interest in that it keeps environmentally sound, since it’s ecological health is important for many different activities. A healthy Baltic Sea is important for fishing industries as well as for the recreational uses of the citizen’s. It is important for plant and animal life, and for the general environment of the whole Baltic Sea area.

More than the general functions mentioned above, the Baltic Sea as an ecosystem, its use for harvesting fish and for social and recreational purposes, the Baltic is also used as a “waste dump”. The Baltic Sea acts as an absorber for all kinds of waste products from human activity. Therefore using the common can in this case also mean to pollute it. Even if the Baltic Sea as a common is used in a different way than a pasture, the theory about the tragedy of the commons developed by Hardin, still is as important today as it was in the days of common pastures. The difference between the Baltic Sea and the Pasture in Hardin’s example is that the Baltic Sea is a common in an international system, and that the main actors using it are states. Naturally, it is not per se only state actors that pollute the Baltic Sea, but they set up the rules for the national private actors polluting and using it. The states can also benefit financially from the regulations they have created.

The states surrounding it will have little reason to stop the polluting it as long as they believe that other states will continue to pollute it. This is because a state will have to pay the price for the change of behaviour without knowing for certain that an improvement in the state of the common will take place. Even if one state changes it’s ways other states might continue to use the common in the same way as they have done before, and no change will be achieved. States therefore have

little incentive to spend time and capital on becoming more environmental friendly to protect a common if they don't know that the other states will do the same. Therefore it is crucial to coordinate the actions of different actors to protect a common. This can be done by rules and laws for example. The problem is that international commons do not have an ownership, and often are parts of different states territory. The Baltic Sea has this problem too. It is a common that is owned partly by the states bordering to it, and partly not owned by anybody. The fact that pollution goes beyond borders affects a common as the Baltic Sea to a high degree. Therefore international agreements and cooperation gets especially important. The problem is that there usually are no legal organs to enforce law in an international system.

The European Union is a supranational system that has the possibility to coordinate the environmental politics of the member states. Eight of the nine states bordering to the Baltic Sea are members of the EU. Therefore, the EU at least has the spatial influence necessary, to affect such a complex problem as the eutrophication of the Baltic Sea. It has influence over a sufficiently large area of land - it can coordinate the politics of almost all the states that border to the Baltic Sea - and therefore plays an important role in the protection of it's environment.

1.3 Aim

The tragedy of the commons theory show that problems exist concerning international commons and their international protection. In the light of this, I want to illuminate what problems, if any, might occur in the EU:s environmental work for the protection of the Baltic Sea. I will look at the legal system of the EU as well as the directives.

2 Methodology

2.1 Theoretical framework

2.1.1 Implementation theory

Implementation theory is used to analyse how well a political decision is being adopted or put into action. The implementation of politics is a complex process that can be studied on different levels. A study can for example be focused on the local actors implementing on the street level, or on the body that creates the politics. It is also possible to look at different criteria when assessing how well a political decision has been implemented. The first step is to decide what part of the implementation process that shall be evaluated. The Implementation of a policy can be divided into *policy outputs* and *policy outcomes*. Policy outputs are the regulations, laws and institutions that are used to deal with policy problems, while the policy outcomes are the effects of these measures on the real world (Jordan 2002 p 304).

If an analysis is focused on policy outputs, the analysis will show how well a political decision is put into action legally or formally, i.e. how well the political decision is integrated into legislation, and the work of institutions and organisations. If the focus on the other hand is on the policy outcome, the analysis will show the actual effects the implementation has on the real world. In an policy outcome analysis, it is for example possible to analyse how well the policy outcome corresponds to the goals or intentions that the policy maker had with the policy. When making such an analysis, it is necessary to look at the theory behind the policy. It is for example possible to look at questions such as whether the measure ascribed by a policy are the right way to address the particular problem or not, i.e. if the underlying theory about cause and effect is correct. If the theory underlying the policy is wrong, the implementation of the policy will not lead to the outcome expected by the policymakers (Dimitrakopoulos, Richardson, 2001 p 338, 336).

I will mainly focus on the policy outputs since these constitute the first step in the implementation process. A EU policy has to be adopted and transposed into national legislation and institutions, to be able to give an outcome. The policy outcomes of an environmental policy are the real effects they have on the environment. It is problematic to make an evaluation of the effect on the

biological environment with political science tools, and perhaps even falls outside of the political science field.

The policy output can be divided into two further sub categories when analysing implementation - A policy can be implemented *formally* or *practically*. In the case of EU a policy is formally implemented when it is transposed into national legislation. This means that the member states create laws and institutions that correspond to the EU policy. That a member state has transposed a directive does not mean that the laws created are actually enforced, or that they are in accord with the EU policy. To assess if a policy is implemented practically, it is necessary to analyse how well the laws transposed into national legislation are enforced, and how well they follow the EU policy. It is therefore possible that a state that has implemented an EU policy formally, has not implemented it practically.

Implementation has to be monitored and assessed to be effective. In the EU it is the member states themselves that to a large extent supply the information for the monitoring of the implementation of directives. The Commission assesses the implementation process with information that it receives from the member states reporting back to it, from the public and private companies, and from consultancy reports (Jordan 2002 p 313). Since the information that comes from the member states not necessarily is objective and truthful, the information from private persons and companies have become a very important source of information for the Commission (Dimitrakopoulos, Richardson 2001 p 340).

The policy maker has to have control over the implementation process and the actors implementing. The degree of control that the policy maker has over the actor implementing the policy is can influence the outcome of the implementation. Policy makers need to be able to evaluate how well the implementation has worked. There are different ways of doing this, either through routine controls through special organs designed for this purpose, or by other actors. If the assessment of the implementation shows that the policy has been badly implemented, the policy makers can try to re-steer the actors implementing the policy (Sannerstedt 2005 p 20-21). Policy makers have the possibility to evaluate the implementation process, and try to correct the process and the directives they have given, if the implementation is not working well.

However, an assessment of the implementation is no warranty that the actors implementing will necessary follow the policy. The policy makers need to have control over the actors implementing the policies. They have to be able to make them comply. If the actors implementing the policy for some reason prefer not to follow the policy from the policy maker, the policy maker needs to be able to force the actor implementing to implement the policy in order to achieve the desired outcome. Control is more problematic in an international system than in a national setting, since the actors implementing the policy in the international system are sovereign states. The EU is a bit different than other international systems in that it has some power over it's member states (the states still are sovereign actors in an international system though). The EU has developed systems to control the implementation of the policies by the member states, and to a certain degree even punish states that don't comply (Dimitrakopoulos,

Richardson, 2001 p 339). To evaluate how well a implementation system is working, it is important to look at what possibilities the policy makers have to control the implementation of the policy. Control thus consists of two components: 1. assessing the implementation 2. a mechanism for obtaining compliance.

2.1.2 Steering Theory

Steering theory can be used to analyse the implementation process of a political decision. The steering process contains two actors - the steerer (the actor that gives an order or directive) and the steered (the actor that is receiving it and is supposed to put it into action). Steering theory examines the relation between the steerer and the steered, and shows different steering strategies, and examine how they work. Steering can be done *directly* or *indirectly*. In direct steering the steerer gives direct instructions to the steered, these might be more or less detailed. Indirect steering is a more passive method, and consist of setting up frameworks and prerequisites for the steered. These can for example be rules for the system the steered works in, or control of financial support for the steered. Another form of indirect steering is when decision makers express their opinion on a matter in a legally non binding way (Sannerstedt p 20). This form of indirect steering is common in the EU, often in the form of goals or strategies from the Commission.

It is possible to focus on the steerer or the steered in an analysis. I will focus on the steered (the member states, and to a less degree non state actors) in my analysis, since they are the ones that carry out the implementation, and my focusing is on the policy output.

Lennart Lundquist describes three important prerequisites that have to be met on the part of the steered for implementation of politics to be successful. The steered has to:

- *understand* the policy
- *be able* to put it into action
- *want* to put it in to action

According to this model these three criteria are essential for the implementation of politics. The first step on the way to successful implementation is that the steered understands the politics it is supposed to implement. If the steered understands the politics the way that the steerer has intended it, the first step to successful implementation is taken. The second step is that the steered has to have the ability to implement the politics too. The steered has to have the financial, technological and organizational resources to implement the politics. If the steered lacks some of the resources needed, it will not be able to implement the politics. The last step on the way to implementation is compliance from the steered, the steered has to want to implement the politics. The steered might disagree with the politics, and consider them to not to be purposeful, or to be unethical or in some other way wrong (Lundquist p 77-78).

2.1.3 Implementation and steering in a supranational system

Looking at the environmental politics and goals of the EU, at first glance they seem to be an ambitious attempt to work for a better European environment. The EU has created a large amount of directives and action plans, and has set up ambitious goals for environmental protection. These action plans and goals also include the ocean environment, and include directives that affect the Baltic Sea. There has however been criticism against EU for putting too much effort on creating legislation and too little on implementing it (Jordan 2002 p 301-302). Also people working in the EU organisation have been talking about the problems of implementation, for example Margoth Wallström, in the 5th annual survey on implementation of environmental law. She states that directives are not always being implemented on time or as they should (sec(2004) 1025 p 3). The criticism against the EU for neglecting the implementation process of the politics that are created are important. If the transposition of EU directives into member state law and other forms of implementation in the member states is left out, even the most ambitious environmental politics set up by the EU will remain an empty paper exercise. The implementation process therefore is crucial for any real effect on the environment.

There are special problems connected with the implementation of international agreements. Since there is no power that stands above the sovereign state, a state cannot be forced to comply to an international agreement. The situation is a bit different in the EU, where a system has been developed that has some limited power over the member states.

A member states can choose not to follow a policy or EU law, but this kind of disobedience can lead to an infringement case in the European Court of Justice (ECJ). This is possible since the law of the EU stands above the law of the member states, which means (as the ECJ has stated) that member states have given up a part of their sovereignty to the EU (Hix 1999 p 109-110). The Commission or another member state has the possibility to start an infringement case on a member state that does not follow the EU treaties or legislation. An infringement case can, but does not have to, bring the state to the ECJ.

The ECJ has some limited power over the member states, and can at least impose a financial sanction on the state if it does not comply with the sentence of the court. The other effect an infringement case can have, besides resulting in financial sanctions, is that the state has to take the “embarrassment”, and get a bad reputation among the other states (Hix 1999 p 106, Jordan 2002 p 311). So, beside of fearing a financial punishment, the member states might fear to lose their good reputation in the system.

The EU is an international system consisting of sovereign states, facing many of the same problems that exist in other international systems. The difference is that the EU has developed a supranational system that has some (even though limited) power over its members.

The member states have become members of free will, and therefore could be expected to willingly adopt the legislation from the EU, and to implement it. The situation is more complex than this though. There are many reasons that a state

might consider it to be in its interests to be a member of an international organisation. This however does not mean that the state sees it is beneficial to implement all of its legislation. Membership in an international system or organisation can have different advantages, such as increased trade or financial growth, or other political benefits (Tallberg 2002 p 55-57). States have a lot to gain from a membership in the EU, such as the advantage of a strong currency and access to a big market. States therefore might well choose to become members in the EU for the benefits that it brings, without agreeing on all the political goals that the EU have. Therefore it is not necessary that all member states will fully embrace all the political areas of cooperation in the EU, with the same motivation. It is well possible that some member states have joined the EU of financial or other political reasons, but not feel equally strong for the environmental work of the EU, and therefore choose to put less emphasis on this part of the cooperation if they can.

The Baltic Sea is not solely surrounded by member states of the EU, but also borders to Russia that stands outside of the EU. This means, that even if all of the member states of the EU follow certain political measures to protect the Baltic Sea, the outcome of the political initiative might be strongly influenced by the actions of the non member state. Cooperation between states is especially important when dealing with environmental problems that go beyond borders. In the case of the environment of the Baltic Sea, cooperation between the EU states might not necessarily be enough - cooperation with non member states affecting the environment might be necessary. Because of this it is interesting to see how the EU deals with Russia, since it is not a member of the EU, but affects the environment of the Baltic Sea.

International agreements often are very vaguely formulated, sometime so broadly and vaguely formulated that it is possible to interpret them in many different ways. This can be a result of negotiations and compromises between many different interests. Vagueness in the formulation of international agreements gives room for different interpretations, and different states can choose to interpret the agreements very differently (Sannerstedt 2005 p 30-32, Jordan 2002 p 312). This is the case in the EU directives concerning environmental policies too.

The member states have to transpose the directives into national legislation. The directives of the EU therefore have to be broadly formulated to fit many different environments and situations, in order to be applicable in all member states. This means that the member states of the EU still have some opportunity to choose how to interpret the directives when transposing them into national law. So the directives have to be balanced between a too strict and a too vague formulation. If they are too strict, they will not be applicable in all states, and if they are too vague they can be interpreted in any way.

Even if a state wants to implement a political decision, lack of money or technology can be a hinder for implementation. Sometimes the state supposed to put a policy into action just cannot afford it or lacks the necessary technology for it. This is a problem for many poor countries, and countries where the national government lacks full control over the bureaucratic system. There are differences in the political culture and implementation culture in different states too. Some

states have a political culture where laws are seen as legally binding, while laws can be seen as ideals or goals in other states (Jordan 2002 p 337, 348-349). The political structure in a state can make implementation easier or harder too. Federal states for example might have a more problems with the implementation, since the federal government might be in conflict with the local politicians (Dimitrakopoulos, Richardson, 2001 p 336).

These are all problems that are present in the EU system, and affect the implementation of the directives. Since the Baltic Sea is a common, it is specially important that the EU manages to make it a norm for the member states to follow the law issued by EU to prevent states from free riding or suspect that other states are free riding.

2.2 Material

I will use both primary and secondary material in my analysis. The primary material is made out of official documents from the EU in the form of directives. The secondary material consist of different evaluations, statistics and assessments of implementation and environmental work in the member states. This consists of evaluations like the “annual survey” of the implementation of environmental law by the EU Commission as well as surveys from other organizations in the member states, and articles from magazines.

The EU directives concerning eutrophication are the focus of the analysis, and therefore deserve a discuss of some more length. The EU does not have a special political program for the environment of the Baltic Sea. The EU politics concerning the Baltic Sea are found in different directives.

The Baltic sea, like all other oceans in Europe, are affected by several different EU directives concerning different case issues. Since the main environmental problem in the Baltic is considered to be eutrophication, and nitrogen is the main cause of eutrophication, I have chosen the directives that address the release of nitrogen compounds into waters and rivers. There are two directives that concern this issue directly – the Urban Waste Water Treatment Directive (UWWTD), and the Nitrates Directive (ND).

There are other EU environmental politics that concern the Baltic Sea as well, for example the Water Framework Directive (WFD), the Marine strategy directive, and some directives concerning chemical pollution. I will only look at the UWWTD, the ND and the WFD, since these are the directives that concern eutrophication.

The WFD differs from the ND and UWWTD in that it has a broader approach to the environmental states of the waters in the EU, and not only concerns a specific case issue. The WFD concerns all kinds of waters, and also concerns all kinds of pollution of the waters, and can be seen as a new approach to water conservation in the EU. Most earlier environmental politics of the EU have been directives dealing with special case issues. The WFD is a an attempt to co-ordinate different environmental politics and objectives and create a more holistic

approach to the environmental problems of water. One of the main ideas in the directive, is that the member states shall not only look at the environmental problems as stopping at national borders, but rather see the geographical borders of the problems (EU Web 1).

The old directives such as the ND and the UWWTD are the foundation for the WFD. The WFD has is supposed to coordinate the implementation of different old directives, but the measures ascribed to be taken against environmental problems are mainly found in the old directives.

The Commission has recently (24/10 2005) proposed a new directive for the marine environment. This directive is still only a proposition, but might contribute to a better environment of the oceans and seas of Europe (and be of importance for the question of eutrophication) ones it is turns into action fully. But since it still only is a proposal, I will not discuss it further.

The directives that are of importance for the Baltic Sea in the question of eutrophication thus primary are the ND and the UWWTD, and to some extent also the WFD.

2.3 Method

I start with a problem - the environmental protection of the Baltic Sea in an international system. I will analyse how well the EU can contribute to the protection of the environment of the Baltic Sea, in the specific case of eutrophication. I will analyse this with different theories, and therefore the study can be seen as theory consuming (see Esaiasson 2004 p 40-41).

I will begin by analysing and mapping out the content of the EU directives to see what political measures they contain. My focus will be on the ND, and the UWWTD. The analysis of the WFD, will only concern special parts that are of importance for the eutrophication of the Baltic Sea.

First I will analyse which political measures the directives contain, and who (what actors) are supposed to implement the measures. Some measures are supposed to be implemented by states and others by non state actors. There are different kinds of measures that are used in the directives, some are compulsory, such as legislation that has to be transposed into national law, while others are more or less voluntary, such as different recommendations. Depending on what kinds of measures the directives prescribe, there are different implementation problems connected to them.

All measures have to be understood by the actors implementing them, if they are supposed to be implemented. Above that the actors implementing the policy have to be able to implement the policy, and they have to want to do it. The measures that are voluntary, fully depend on the good will of the actor supposed to implement it. Measures that are compulsory do not depend on the will of the steered to the same degree, if the policy maker has the ability to be enforced the implementation of the policy. Compulsory measures may require that the policy makers have control over the actors implementing the policy and the

implementation process. I will therefore analyse to what extent the policy makers (in this case the EU) are able to control the steered (states and non state actors). Control contains two aspects in the implementation or steering process. The steerer has to be able to assess the outcome of the implementation process as well as to be able to enforce the implementation of the policy. I will therefore analyse both these aspects of control.

I will analyse what possibility the EU has to enforce the implementation of its directives. I will first make an overview of the legal system of the EU, to see what possibility the EU has to enforce its policies in the member states. I will do this by looking at the EU's judicial organs and the judicial base of the EU.

The other aspect of control, to be able to assess the implementation of EU law, is equally important. I will investigate what possibility the EU (usually the Commission) has to get information about the implementation in the member states. The information can be collected in different ways, and I will investigate how this can be done and how it is done. I will analyse what the EU's main information channels are. I will mainly use secondary sources in the for information about the judicial system of the EU, and the way that the EU collects information about the implementation in the states.

So, I will look at control both in the sense of assessing the implementation process, and enforcing law in the member states. I will also look to how these two aspects of control work in the specific cases of the directives concerning the eutrophication of the Baltic Sea.

I will use the implementation and steering theories introduced in the preceding sections as tools to analyse the political measures in the directives, and the judicial system of the EU. With the help of the theoretical body, I will assess how well the directives are suited for the system that they are situated in, and what the problems and gains of the steering strategy and shape of the directives are.

It is not possible to evaluate how well the states *understand* the directives by analysing the directives, but it is possible to analyse how clearly they are formulated. By analysing how clearly the directives are formulated, it is possible to see if there should be a big or small risk that they are wrongly interpreted. If the directives are very unclear or vaguely formulated, this increases the risk that they will be wrongly interpreted. Therefore I am going to analyse how clearly or vaguely formulated the directives are. I have not created a strict frame for analysing the clearness of the directives, but will use a qualitative method when interpreting them.

There can be a strong connection between *understand* and *will* when it comes to the implementation of the directives. If the steered has a political reason not to implement the EU policy, the steered might choose to interpret a vaguely formulated policy wrongly. What seems to be a matter of *understanding* the directive, can in fact be a matter of not *wanting* to understand it. Naturally it is equally possible that the steered genuinely does not understand the directive, and therefore does not implement it in the way.

I will also use statistics on the implementation of the parts of the directives that have already passed the deadline for implementation, to get a better picture of the implementation process. Looking at these statistics it is possible to see if there

are certain kinds of measures that are implemented to a higher or lower degree, and therefore might be considered more problematic. Such an analysis of implementation statistics only shows how well the output part of the implementation process has worked. It also has to be kept in mind that the statistics only shows the cases of failed implementation that the Commission has been able to detect. The fact that a member state has reported to the Commission that it has adopted a directive into national law, does not automatically mean that the member state follows the directive. I still consider such an analysis to be useful, and will use statistics of the implementation, to give an overview of the main problem areas of the implementation. I will also use cases from individual states to exemplify the problems of implementation within the timeframe set out in the directives.

3 The judicial system of the EU

3.1 The foundation of the judicial system of the EU

The EU is a political system based on the cooperation between sovereign states. The cooperation between the states is based on different treaties that the member states have signed. These treaties contain rules for the cooperation between the states.

The EU is a unique political system that lacks an equivalent in the international system. It has structural similarities both with a classical international organisation, in that the states are important in negotiations, policy making and execution of policies, and with a federal state, in that it has independent institutions and that the decision making is affected by supranational organs (Tallber 2004 p 12). The only state like feature that the EU lacks is the monopoly on coercion. This is still within the domain of each individual member state (Hix 1999 p 5).

The basis for the legal system of the EU is the treaties that the member states have signed. These treaties that control the behaviour between the states are the fundament for the EU:s judicial system, and make out the ‘primary’ acts. These acts deal with the relation between the governments of the member states. Laws and directives are ‘secondary’ acts, and are based on the articles of the primary acts. These are created by EU bodies such as the Commission, the Council and the Parliament (Hix 1999 p 103).

3.2 The European Court of Justice

The European Court of Justice (ECJ) is the EU body that controls that the acts and treaties of the EU are interpreted correctly. The ECJ has the ultimate authority to interpret the legal acts of the EU. This has had the result that the ECJ has had a possibility to shape the politics of the EU, through interpreting the treaties. The ECJ has for example developed the principles of ‘direct effect’ and ‘supremacy of EU law’ through interpretation of treaties. Direct effect means that citizens and companies have legal rights under EU law, that have to be upheld by national courts in the member states. Supremacy of the EU law means that EU law always stands over national law, in a case where there is a conflict between the these two (Tallberg 2004 p 164).

The ECJ can make judgements in cases between member states, between member states and the institutions of the EU, between the institutions of the EU and companies or private citizen and between different EU institutions. The most common kind of judgements are the ones between the EU institutions and the member states. These include a large amount of cases where the Commission raises charges against member states for breaching directives or other EU law (Tallberg 2004 p 167-168).

The ECJ has the ability to make a judgement against a member state breaching EU Law, but has little power to enforce any punishment on it. The strongest weapon that the ECJ possesses are financial sanctions (Hix 1999 p 106). However, it is extremely unusual that member states actually get financial sanctions, they almost always choose to comply with the decision of the court instead (Tallberg 2004 p 169). This shows that the ECJ has an effect on the behaviour of the states. Even if the ECJ does not often have to impose financial sanctions on member states, the threat of a sentence seems to be enough to make the states comply.

The Commissions report of the implementation of the Nitrates directive from 2002, states that the Commission started 56 infringement cases on the member states between 1994 and 2002. Half of these cases could be dropped again because the member states choose to improve their implementation of the directive. Out of the 56 cases, there were only seven that had by 2002 gotten a first condemnation from the ECJ. This example shows that an infringement, even if it does not result in a financial fine from the ECJ, can influence the member states to comply with the EU legislation (com(2002) 407 p 30).

3.3 Control

The Commission is an independent organ that works to fulfil the politics of the EU. It should never represent any single state, but always work for the interests of the EU as a whole (Tallberg 2004 p 83). One of the Commissions main tasks is to control that the member states fulfil their obligations to the EU, and follow the EU law and treaties. The Commission can start process against member states, and impose fines on private companies, that breach the EU Law. The Commission needs information about what the member states are doing in order to be able to monitor them. Without information about the states actions, they can neither monitor them, and therefore not start infringement cases against them. The Commission has different methods for collecting information about the member states, and one of the most important sources, is information from organisations, companies and individual citizens. Private citizens have even been described as the 'eyes and ears of the Commission' (Dimitrakopoulos, Richardson, 2001 p 341).

If the Commission notices that a member state has infringed against EU law it first starts a negotiation with the state to find a solution to the problem. The case is only taken to the ECJ if no solution can be found between the state and the Commission. Since most infringement cases that goes to the ECJ ends in favour of

the Commission, member states are reluctant to take a case to the ECJ (Tallberg 2004 p 95-96).

In many cases the member state themselves are responsible for informing the Commission about the adoption and implementation of the directives. The problem with member states reporting to the Commission about their own implementation, is that they are not necessarily objective or truthful. Even if a directive has been adopted into national legislation, it might have been done so in a way that does not correspond fully with the instructions in the directive. And even if the directive has been implemented correctly, the laws and regulations adopted by the member states might not be followed by local actors.

The Commission made a list on the infringement cases of “bad application of EU environmental law” . These were cases that had led to the stage where the Commission sends a “letter of formal notice” to the member state. The list covers the years 1998-2002, and contains a total of 529 cases. The Commission notes that the actual amount of cases probably is higher than this though, since it has not got the capacity to fully control the implementation in the states. It also states that 2/3 of the complaints actually have come from citizen’s. The total number of reports from citizen’s per year, that complained about bad implementation of environmental law, was around 500. (EU web 2) This shows that the Commission really has a great need for information about the implementation in the member states, and that much of these infringement cases can be started because of information from the individual citizens.

The Commission also does their own assessments of the implementation of environmental law. For example the Commission makes an annual survey of the implementation of the environmental law.

3.4 Legal documents

The EU has developed many different types of legal instruments. The main types that are used in environmental politics are directives and communications. Directives are legally binding but have to be transposed into national legislation to turn into force (Hix 1999 p 109). The directives usually include a time limit for the transposition into national legislation by the member states. Since the directives have to be transposed into national law by the member states themselves, the member states have some freedom to choose how to shape the national legislation to best fit the goal of the directive. This flexibility has made the directives especially useful for environmental legislation.

Communications are not legally binding and are a part of EU:s Soft Law. Even though communications from the Commission are not legally binding, they still have political importance and a limited legal status. The Commission can formulate goals, general directions and guidelines in its communications. These have not got legal power over national legislation, but can still influence the politics of the member states by putting pressure on them to act in accordance with the general EU policy (Tallberg 2001 p 42-43).

4 Directives, implementation & control

In this chapter I will present and analyse the EU directives that concern the eutrophication of the Baltic Sea. I will first present and analyse the content of the single directives, and show what measures they contain and how they are supposed to be monitored. I will foremost look at the how clearly they are formulated. After the directives, I will look at the Commission, to see what possibility it has to control the implementation of the directives by the member states.

4.1 The Urban Waste Water Treatment Directive

The urban waste water treatment directive (directive 91/271/EEC) concerns the collection, treatment and discharge of discharge waters from towns, cities and certain industries. The directive plays an important role in the struggle against eutrophication of the Baltic Sea, by controlling the level of nitrates from waste waters going into it. Agglomerations that lie close to rivers that drain into the Baltic Sea, and agglomerations that lie at the coast of it, naturally are especially important for the eutrophication. The UWWTD is a legally binding directive, and thus has to be transposed into national legislation by the member states.

The directive was adopted in 1991 and was supposed to be fully implemented by 31:th December 2005. The directive also contains many measures that have a deadline for implementation that is earlier than 2005. Most of the measures have already past the date for their implementation deadline, which means that it is possible to find statistics that show to what extent the measures have been transposed into national legislation.

The deadlines for the implementation and transposition of the directives are clearly stated and should not be a cause for misunderstandings.

4.1.1 Main measures

The main measures that the directive prescribes are the collection and the cleaning of waste water and from agglomerations, which have nitrate discharges that are above a certain specified level. The term agglomeration, is defined as an area densely populated, such as a city or town or an industrial area or factory.

” ‘agglomeration’ means an area where the population and/or economic activities are sufficiently concentrated for urban

waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point”

This definition states that the area has to be *sufficiently concentrated* for urban waste water to be collected. At first sight this might seem as an very vague formulation. The directive has to have an inclusive definition of an agglomeration, since it can be an industrie as well as a city or town.

Agglomerations can vary in size, and what measures that have to be taken depend on the size of the agglomeration. To be able to identify the size of an agglomeration, the directive contains an complementary measure called *population equivalent* (or *p.e.*). Population equivalent is a index that is based on the amount of nitrates that an agglomerations releases. One p.e. is identified as a certain amount of biodegradable load, that needs a certain amount of oxygen to be degraded. One p.e. therefore does not have to correspond to one actual citizen, as the name might suggest. What p.e. value an agglomeration has, thus depends on the amount of biodegradable solids it produces. This might vary between different towns and cities, depending for example on the size of industries.

Assesing the the p.e. value of an agglomeration needs a certain technical knowledge.

Collecting and cleaning waste water. The main practical measures ascribed by the directives are the construction of water collecting systems and water purification systems. Depending on how much pollution an agglomeration discharges, and where it is located, it has to meet different criteria's for water purification. Agglomerations that discharge water into sensitive areas have to meet higher criteria's for the water purification than agglomerations that release water into less sensitive areas. These criteria are found in annex 1 (table 2) in the directive.

These criteria have a technical character, and consist of a list of the minimum reductions of nitrates and phosphorus, measured in percent. The criteria for treatment of water that is discharged into sensitive areas seems to be clearly formulated, at least to a person who hasn't got full knowledge in natural science. Thy contain exact figures of how many percent of the nutrients that have to be removed, and also include the measuring methods that should be used. The technical character of the annex requires a certain technical knowledge by the actor implementing it. The same goes for the criteria concerning discharges into the areas not considered to be sensitive, since also they include technical instructions for the reduction of nutrients.

Depending on the amount of nutrients that an agglomeration produces, and into which water the waste water is discharged, there are different time limits for the building of collecting systems and water purification systems. The directive contains deadlines for the different agglomerations.

The Commissions report on the implementation of the directive shows that many states do not clean the water in accordance with the directive. The report states that only 44% of the water that goes into sensitive areas is properly treated, and 69% of the waters that go into areas that are not considered to be sensitive is treated in the proper way (commission 2004 p 20).

The European Environment Agency has made a study on a smaller amount of states, concerning the effectiveness of the directive. They show that there are great differences in the infrastructure between different states. In some states almost all households are connected to sewage treatment plants while the number is a lot lower in other states. In Spain and Poland only 55% of the households are connected to sewage systems, the situation in Estonia is a bit better with 70%, and even better in France with 94%. The EEA study comes to the conclusion that the main reasons that the directive is not implemented is a lack of money (EEA 2005 p 46-47). The financial situation should not be the only reason though. The poorest States (states that have less than 90% average European gnp) can get financial aid from a different EU funds (EU web 3).

Identifying sensitive areas. One of the first measures that the member states have to take, according to the directive, is to identify areas that are specially sensitive to nitrates. The directive contains an annex (annex II) that in turn contains criteria for identifying sensitive areas. The criteria for identifying sensitive areas consist of a list of different types of areas that are considered to be sensitive. These areas are freshwater such as lakes, and coastal waters such as estuaries. These waters are only considered to be sensitive if they either already are eutrophic, or in the near future might become so. The annex does not contain any exact guidelines for identifying the different categories of areas that are considered to be sensitive, i.e. there are no fixed rules for the categorisation of an area. Therefore there is some room for the actor implementing to judge if the area belongs to the sensitive areas listed in the annex or not. This vagueness can be considered of less important though, since the crucial point is whether an area is, or is of risk, to become eutrophic.

The directive does not contain any clear definition of when a water is eutrophic. The actor implementing the directive therefore has a high grade of freedom when identifying sensitive areas. States can use their freedom of assessing the quality of water in different areas for their political ends. Therefore a state with high environmental ambitions will most probably assess the state of the waters in its territory differently than a state with a lower environmental ambition. This flexibility in the formulation of the directive is probably necessary, but opens the door for less ambitious states to do less ambitious implementation.

The Commissions report on the implementation of the directive, from 2004, shows that many member states identify areas in a way that goes against the view of the Commission. There are many examples of cases where the Commission considers an area to be sensitive or eutrophic, that the member state have chosen to identify as a normal area (commission 2004 p 45,55,57). This shows that there is a real problem with the loose definitions of eutrophication and sensitive areas in the directive. The vague formulation has not been a problem for all member states though; there are many member states that have managed to identify sensitive areas more in line with the Commissions view as well. This seems to imply that the problems some states have with identifying sensitive and eutrophic areas, are connected to the member states "*will*" rather than their "*can*". There might be different reasons that a member state has more or less will to identify sensitive areas correctly. This might for example have financial reasons, some states have a

better financial situation, and thus have less problems with tackling the financial costs that come from stricter implementation of the directive. When looking at the implementation of the directive Europe-wide, it is possible to see that the northern states generally are better in identifying sensitive areas.

Many states have not kept the time frames for identifying sensitive areas. Greece, Italy and Spain did not identify sensitive areas until 1999, while other countries such as Belgium, Ireland and France almost kept the timeframe and identified sensitive areas in 1994 (commission 2004 p 45,52,34,57,62,68).

The directive also prescribes that the member state shall review the sensitive areas at least every four years. The areas that are found to be sensitive in the review (including new ones) should meet the requirements made out in the directive within a timeframe of seven years.

Pollution across borders. Article 9 addresses the issue of pollution that goes beyond the borders of the member states. A member state might be affected by discharges that come from another member state. If this happens the member states concerned shall work together (with the help of the Commission if necessary) to find the source of the pollution and stop the pollution at the source in a way that corresponds to the directive.

Article 9 is very short and focused on what actions to take if a problem arises. The Water Framework Directive can surely fill the gap of cross boundary cooperation that this directive may contain.

4.1.2 Monitoring of implementation

It is the member states that shall monitor the implementation. Article 15 states that it is the competent authority or some other body appropriate for the task, that shall monitor the discharges of water from waste water treatment plants. They have the task to control that the waters discharged are treated in compliance with the directive. They shall also monitor the waters that the waste waters are discharged into.

Article 17 prescribes that the member states shall develop an action program for the implementation of the directive within the state. This action program should have been ready in December 1993, and submitted to the Commission in June 1994.

The member states should also make a report of the situation concerning the state of the water, and the disposal of sludge and of wastewater within its territory. The member states should submit this report to the Commission after it has been published (article 16).

The member states shall also inform the Commission about the new legislation that it creates that is within the field that is concerned by the directive. In this way the Commission can see that the states have created the legislation that the directive prescribes (article 19).

The member states are the ones that are responsible for monitoring the implementation and the state of the waters. They also have to submit some of the monitoring information to the commission, and so the commission has a limited

possibility to control the implementation process through this. There is always a risk that the information that comes from the member states has been polished in some way, and perhaps not fully corresponds with the actual situation. The Commissions possibility to get information about the actual implementation process might be limited.

4.2 The Nitrates Directive

The goal of the Nitrates directive (directive 91/676/EEC) is to reduce, and prevent, water pollution caused by nitrates from agriculture (article 1).

Nitrates mainly come from agriculture, and both natural manure from animals and chemical fertilizers can cause eutrophication. Nitrates cause eutrophication in rivers and lakes as well as in oceans and seas. The reduction of nitrates discharges therefore plays an important role for stopping the eutrophication of the Baltic Sea.

The nitrates directive was adopted in 1991. It has a different system of deadlines for implementation than the UWWTD. The deadlines for implementation are not fixed by dates, but consist of time periods that stand in relation to each other. Every measure has a limited period (for example, 6 months, 2 years or 4 years) of time in which the measure has to be implemented. As soon as one measure is implemented the time period for the implementation of the next measure starts. If state A and state B have maximum 4 years to implement one measure, and state A only uses 2 years, while state B used the full 4 years, state A will have to begin with the implementation of the next measure while state B still implements the first one. This means that the deadlines for the implementation of the different measures will be at different times for the different states, depending on how fast they have implemented the previous measures. The time frames for each state are easy to follow, and should not be possible to misinterpret.

4.2.1 Main measures

Vulnerable zones. The first measure the member states had to take was to evaluate the water quality of different waters within their territory, to identify waters that were specially sensitive to nitrates, and land areas that drained into these (these land areas are called vulnerable zones). The directive contains an annex with special instructions and criteria for identifying waters that are sensitive, and measuring the quality of the waters.

The criteria for identifying vulnerable zones (in annex I) are partly vaguely formulated. There are clearly defined limits for the level of nitrogen allowed in surface fresh waters and in ground waters. Other waters such as lakes and costal waters have not gotten clearly defined limits for nitrogen levels. These waters are considered vulnerable if they are, or might become, eutrophic. Just like in the UWWTD, there is no clear definition of when a water is eutrophic. All water types are not mentioned in the directive (for example rivers).

The criteria for identifying vulnerable zones are so vaguely formulated (except for the surface fresh waters and in ground waters), that they give the actors implementing the directives a large freedom to choose what areas should be considered vulnerable or not. This is a perhaps a good strategy if the actors implementing the directive all have a strong environmental ambition, but less good if some actors lack this ambition. A report by the Commission on the implementation of the directive from 2002, shows that the Commission in many cases consider the states to identify too few areas as vulnerable zones. The report that shows the situation in 2000, shows that there are great differences in the percent of land that has been designated as vulnerable. Denmark, Finland, Germany and three other states have chosen to identify 100% of their land as vulnerable, France 48% and the rest somewhere between 1-11% (Sweden had 9%) (Commission 2002 p 25). These differences do probably not only depend on the actual amounts of land area that are vulnerable to nitrates, but rather shows that the ambition in the different countries is different.

Codes for agricultural practice. The member states have to establish guidelines or codes for good agriculture, that should be implemented on a voluntary basis by the farmers. The codes can for example contain guidelines for the use of fertilizers, such as when fertilizers are supposed to be used, to how high a degree, and on which land areas fertilizers should not be used. The member states are also encouraged to provide information or education programs for the farmers. The directive contains suggestions for codes of good agricultural, but the states have to adopt them to local conditions. This measure depends on the good will of the farmers, and cannot be forced into implementation. But it is possible to question how active the part of farmers is in the implementation process. The member states have a key role in the process since they are the ones who choose how ambitious the codes should be. They can also choose to put more or less energy on “pushing” the farmers to follow the codes, for example by informing and teaching them. Farmer are the actors that implement the directive at ground level by following legislation created by the member states. A report from the implementation of the directive in Poland says that one problem is that many farmers are hesitant to implement the directive. The report mentions ‘passive resistance’ from the framers (Lon 2005 p 8). Since both the farmers and the governments play a central role in the process, the farmers by following the rules created, and the government in creating rules and codes, it is not fully clear who the agent implementing the directive is in this case.

Action program. The member states have to develop an action program for the areas identified as vulnerable zones. The directive contains an annex (annex III) with measures that the action program should include. Most of these measures are flexibly formulated, and give the member states the freedom to adopt the rules to local conditions. The annex contains guidelines for rules concerning the use of fertilizers (when fertilizers of different kinds may or may not be used) and guidelines for manure tanks and the keeping of livestock.

The action programs created by the member states have to lead to a certain outcome - that the application of livestock manure on land is kept within a clearly

specified limit. This limit is specified to the amount of manure containing 170 kg of nitrate per year and hectare. This is according to me a point worth mentioning since many of the guidelines in the annex concern the use of *fertilizers*, but the actual goal that should be reached only concerns the use of *livestock manure*. It is hard to see the connection between the use of chemical fertilizers and the application of livestock manure. With this distinction, it would seem that it is possible to keep within the limit of livestock manure application (manure containing 170 kilo nitrate), while at the same time using any amount of chemical fertilizers.

The aim of the action program is pretty clear, besides the somewhat confusing definitions of fertilizers and manure. A possible problem with this measure is that it might be difficult to controlling the implementation of it due to measuring difficulties. The directive does not contain any clearly identified way of measuring the amount of manure applied to land each year, and not who is supposed to control it either.

The member states have to create a monitoring program for the assessment of the implementation process of the action program (article 5).

Pollution across borders. The article concerning pollution from one member state affecting another, is the same as in the UWWTD, and the problems are the same. The directive does not however discuss what is to be done if the pollution comes from a another state that is not a member state.

4.2.2 Monitoring of implementation

Article 12 states that member states have to bring necessary provisions into laws, regulations and administration in order to comply with the directive. This should be done within a time frame of two years. The main actor controlling and assessing the implementation of the directives are the member states themselves. Article five prescribes that states shall develop and implement a program for monitoring and evaluating the action programs that they have created for vulnerable zones. This means that the member states themselves shall be the main actor controlling their own implementation of the directive.

If the monitoring of the action programs show that the measures taken are not sufficient to achieve the objectives set out article one of the directive, then states shall take further measures to reach these goals. Since article one only is a short statement of the overall objectives of the directive, it can be interpreted in a multitude of ways. Therefore it is not ideal as a criteria for what actions that have to be taken, at least not if the goal is to achieve the same policy in the whole union.

Monitoring by the member states can be problematic of other reasons than lack of motivation too. A review from the implementation of the directive in Poland (from 2001) shows that parts of the implementation of the directive can be difficult due to lack of organizational and technical knowledge in the polish state. A special body should monitor the run-of from nitrogen, but the body that has been designated for this task, it is feared, lacks the knowledge for doing the

monitoring (Karaczun 2002 p 50). So, even if a state has the good intention to implement a directive, organizational or technical obstacles can come in the way.

4.3 The Water Framework Directive

The WFD (directive 2000/60/EEC) is a new directive from 2000, that is intended to coordinate the different earlier directives, and to create a more holistic approach to environmental work. It is based on the old directives that concern different case issues. The measures in the ND and the UWWTD are therefore an integrated part of the WFD. I will therefore only do a short analysis of this directive, and show the new measures that in some way are connected with or influence the ND and the UWWTD.

4.3.1 Main measures

Identifying River Basins. Article 3 prescribes that natural water areas, so called river basins, are to be identified. A river basin is the area of land from which all surface water drains into the sea through one single point, for example a river. So, instead of focusing on the environmental problems from a national perspective, the member states shall instead look at the problems from a geographical perspective. A river basin might be situated within the borders of a states or it might spread across more then one state. Every state has to identify the river basins within its territory, and assign it to river basin district. If the river basin stretches over the territory of more than one member state, it shall be ascribed to an international river basin district.

This approach to natural ecological ecosystems can perhaps make a better cooperation between the member states possible. The ND and the UWWTD contains articles dealing with pollution from other member states too, but this directive perhaps takes this cooperation one step further.

Actions across borders. If a river basin stretches beyond the area of the EU, and is shared by a member and a non member state, the member state shall try to cooperate with the non member state to achieve the goals of the directive in the whole river basin area.

The WFD has policy for cooperation with countries outside of the EU that is missing in the ND and the UWWTD.

4.4 Control of the implementation by the Commission

According to the directives the member states have the main responsibility of monitoring the implementation process. Article five of the nitrates directive even gives the member states the task of creating their own monitoring program for assessing how well their action programs work. The member states are the ones that are responsible for evaluating and assessing the implementation of the directives.

Even if the member states have a high degree of responsibilities in assessing and monitoring the implementation of the directives, the Commission still plays an important role for the control of the implementation by the member states. This control is not something that is stated in the directives though but is part of the general work of the Commission.

Since the directives have to be suited for the different environments in the different states that they shall be implemented in they have to be sufficiently flexible. The member states have a certain freedom in adopting the directive so as to fit national conditions. This necessary flexibility gives the member states the freedom to shape the measures in the way that best suites the local conditions. The idea though is still that the measures should correspond to the aims of the directive. All measures are not equally flexible, and some have more explicit and technical instructions for how they are supposed to be implemented, and leave less room for the member states to choose their own ways of implementing the measure.

Still, since all measures have to be flexible enough to suit local conditions in all the member states, they have to be formulated vaguely enough. The flexibility of the measures makes the control and monitoring of the implementation harder. Some measures are more clearly formulated, and contain clear criteria for the measures that have to be reached, which makes it is easier to control the implementation of them.

The examples of the vague definitions of the terms eutrophication and sensitive areas in the UWWTD, show that this can be a considerable problem. Problems will occur if a state considers one interpretation to be correct and the Commission considers another to be correct.

Both the directives state that the member states have to provide the Commission with information of different kind concerning the implementation of the directives, and the environmental situation in their territory.

The Commission shall thus receive information about the implementation and the environmental status of the waters from the member states. This has shown to not always be easy. For example, the Commission had some problems in obtaining information for their 2004 report on the implementation of the UWWTD. When demanding information about the results of the monitoring of the treatment plants, one member states choose not to supply the information at all, some did to supply it partially, and one far too late. Most member states did

however give the Commission the information that it was asking for. This example still shows that member states not always give the Commission the information that it needs to monitor the implementation by the states (commission 2004 p 20).

Even in those cases where the Commission receives the requested information from the member states, it cannot be sure that the information is true. As shown earlier there are many cases where states and the Commission interpret parts of the directive differently. Since it is the member states themselves that do many of the evaluations of the implementations and assess the quality for example of different waters, they have the ability to cheat. A state can for example fulfil a small part of a directive, and report that it has implemented it fully. Or if the states in some other way shape the information they give the Commission to make it appear more in compliance with the directive than it really is. Dimitrakopoulos and Richardson believe that this solution can damage the trust of the states within the system in the long run, and therefore should not be expected to be usual (Dimitrakopoulos, Richardson, 2001 p 347). This argument certainly has some value, but on other hand, it is possible that states choose to cheat on certain areas. Cheating should be less of a risk for the individual state if the control system is working bad. The EU covers many different policy areas, and all states probably are better at implementing the policies on some areas. So perhaps it is not as inconceivable as Dimitrakopoulos and Richardson say that a state might choose to cheat on some areas if it can.

The possibility that states either interpret directives wrongly, ignore them or outright cheat, shows how important the role of the public is for the Commission. Information from the public is more or less necessary for the Commission to be able to evaluate how well the directives actually are implemented in the states. Therefore the articles in the directives stating that the states are the main actors responsible for assessing the implementation is not fully true.

5 Summary and Conclusions

The Baltic Sea is an international common that is polluted by many different states. And since pollution goes across borders no state can unilaterally solve the environmental problems of the sea. This is the case for the nitrates causing eutrophication too. Can the EU then be a possible solution to the environmental problems of the Baltic Sea?

I started from the assumption that the Baltic Sea is a common and that it has the same problems as the one describe by Hardin, but that it's possibly situated in an even more complex context. According to the tragedy of the commons theory, the Baltic Sea will need some form of cooperation between the actors using it to avoid being exploited. Liberal institutionalists believe that regimes and international cooperation can solve the problem of commons. The EU is neither a regime nor an international cooperation but a supranational political system. Can this political system solve the problems connected to the commons, and create a healthy Baltic Sea?

The tragedy of the commons and the prisoners' dilemma shows that lack of trust and free riding are two major problems in connection to commons, that can damage the cooperation between actors. I have therefore chosen to look specially at these two problems. A system that guaranties that all states using the common follow the same rules can counteract these problems. If each state knows that the other states will follow the same policy or rules too, they will not be stopped from cooperation by lack of trust. The free riding problem can only be solved through a system of control that can force all actors to cooperate.

The EU has a judicial system that gives it some degree of power over the member states, even though this is limited. The ECJ can sentence the member states to financial fines if they breach the laws or treaties of the EU. It seldom uses this possibility, and in reality, a state can for example choose not to implement a directive for quite a long time without any real repercussions. In order to get all states to follow the EU law and acts, the EU needs to be able to control the member states. Control has two dimensions, first the EU needs to be able to get information about the actions of the states to monitor them, and secondly, they need to be able to actually enforce its laws. Both these parts are a bit problematic in the EU system. The Commission is the organ that monitors the actions of the member states. In the case of directives it usually is the member states themselves that are responsible for monitoring the implementation, and they don't always do this in the spirit of the goals of directives. Without sufficient information about the actions of the member states, the Commission cannot use the legal system of the EU to enforce its laws. Therefore, the EU system does not make sure that all members in reality follow the EU laws. Other international agreements and regimes usually concern one specific case issue, the EU on the

other hand has politics on almost all areas. This means that states that are members are might be more interested in some areas of the EU politics and less in others. A state might even be a member *despite* the fact that the EU has politics on a certain policy area. A state thus might choose to put less effort on the implementation of the policy area that it is least interested in.

As discussed earlier, there is always a small chance that some member states will choose to try to cheat with the implementation of directives (even though this might not be to common). A member state dose not have to cheat outright either. If a directive is vaguely formulated, it is possible that they actually misunderstand directives, or that they choose to interpret it in a way that is perhaps not intended, but not wrong either. Because of this, it is necessary that the directives are clearly formulated. The formulation of the directives thus plays an important part for the implementation process.

The three criteria that Lundquist mention as necessary for good implementation (on the part of the steered), can serve as a guideline to asses how well the directives and policy of the EU work. It is manly the first criteria, if the actor understand, that can be used as a tool for analysing the directives. The other two criteria, if the actor can and wants to implement, concern other problems in the implementation process.

The first question is if the directives are written in a way that makes them easy to *understand*. The directives I have looked at contain a mixture of very clear and very vague formulations. The timeframes and deadlines are always clearly formulated, and some of the measures have clear instructions for how they should be put into action, as well as how they should be monitored. One example of this can be found in the UWWTD – it contains clear instructions for the treatment of waste water, and the amounts of certain substances that have to be removed. Still, the report on the implementation from the Commission shows, that many states despite a clearly formulated directive, choose not to implement it correctly. The fact that the actors implementing it understand it, does not have to mean that they will implement it in accordance with the policy. Other measures in the directives have vaguely formulated instructions, and contain vaguely defined key terms. Examples of these vague formulations are the criteria for identifying sensitive areas in the UWWTD, and for identifying vulnerable zones in the ND. Reports of the implementation of the directives from the Commission show that these vague definitions can be a problem. Some member states have for example chosen to identify sensitive areas and vulnerable zones in a way that is not fully in accord with the spirit of the directive, or with the opinion of the Commission.

The second question is if the states *can* implement the directives. There are many different reasons for why a state might not be able to implement a directive. These might for example be the lack of financial or organizational means, or the lack of infrastructure or technical knowledge. There are for example great infrastructural differences between the different states. The difference between the amounts of citizens that are connected to sewages systems in the different states is very big. In some states only 55% are connected, while in others, it is closer to 100%. All these reason can make it harder for some states to implement certain directives than it is for other. Lack of organizational means is another problem

that can make the implementation difficult. A state might shatter on the implementation since it cannot create the organisations necessary.

The third question is if states have the will to implement the directives. This question is naturally very hard to answer. The states willingness to implement might for example be connected with the states financial situation or infrastructure. The state might consider it to be too expensive to implement. It is possible that states don't want to implement a policy of other reasons too. Because the EU has policies on almost all areas it is not hard to understand that states might be more interested in participating in some policy areas than in other.

The directives are the first step in the implementation process. The states have to understand them to be able to implement them. The EU directives I have looked at are formulated so clearly that there should not be any problems to understand them, as long as the actor implementing them have the will to implement them. The vague formulation is only a problem if the states don't want to implement the directives, because then the vague formulations can be a possibility for the states to misinterpret on purpose. In order for the Commission to be able to force the states to comply, a clearer formulation in some passages of the directive would have been better.

The EU system has some problems with controlling and enforcing the implementation of the directives. Never the less, many states are implementing the directives, even though not always on time. The states that choose not to implement or to implement badly, have different reasons to do this. Looking at the reports on implementation, it seems that lack of will is one of the biggest problems. In some cases it is the lack of knowledge or financial means that causes bad implementation. The poorest member states can get financial aid from EU funds. This aid should be able to reduce the problem of lack of financial means at least in some cases.

I believe that the EU system has the possibility to protect the commons that are within the EU Area. Since the Baltic Sea is mainly surrounded by member states, it should have a good chance of being protected, if the member states have this wish. The main problems with the EU system are that it contains so many policy areas that all states cannot be expected to be equally interested and ambitious in them all. This gets extra problematic since the EU in reality has little possibility to control the member states. The ND and the UWWTD both contain some parts that are too vaguely formulated, and therefore give less ambitious states the possibility to interpret them in a less ambitious way.

6 References

- Dimitrakopoulos, Richardson, 2001. "Implementing EU public policy" in Richardson (ed.) *European Union – power and policy-making*. Cornwall: Routledge
- Esaiasson, Gilljam, Oscarsson, Wängnerud, 2004. *Metodpraktikan*. Stockholm: Norstedts Juridik AB
- Jordan, Andrew, 2002. "The implementation of EU policy, A policy problem without a political solution?" in Jordan, Andrew (ed) *environmental policy in the European union*. Wales: Earthscan publications Ltd
- Lundquist, Lennart, 1987. *Implementation steering*. Lund: Studentlitteratur
- Tallberg, Jonas, 2001. *EU:s politiska system*. Lund: Studentlitteratur
- Tallberg, Jonas, 2002. "Sveriges efterlevnad av EU:s regelverk: ett samarbetsdilemma" in Johansson, Karl, Magnus (ed.) *Sverige i EU*. Angered: SNS Förlag
- Hix, Simon, 1999. *The Political system of the European Union*. Wales: Palgrave
- Hargreaves, Shaun and Varoufakis, Yanis, 2004 *Game Theory – a critical text*. Cornwall: Routledge (second edition)
- Naturvårdsverket
<http://www.naturvardsverket.se/index.php3?main=/dokument/foren/overgod/eutro.html> 15/12 2005
- BOING
<https://jolly.fimr.fi/eutrophication.html> 3/1/2006
- Hardin *The tragedy of the commons* in *Science magazine* 13 December 1968: Vol. 162. no. 3859, pp. 1243 – 1248. On web:
<http://www.sciencemag.org/sciext/sotp/commons.dtl#essay>
- Lon, Katarzyna, 2005. "Action Program of Limitation of Nitrous Compounds Outflow from Agricultural Sources in Catchment Area of Zgłowiączka River"
http://www.zalf.de/icid/ICID_ERC2005/HTML/ERC2005PDF/Topic_1/Lon.pdf#search='Action%20Program%20of%20Limitation%20of%20Nitrous%20Compounds%20Outflow%20from 1/1 2006
- Karaczun, Zbigniew, 2002. "IMPLEMENTATION OF THE NITRATE DIRECTIVE 91/676/EEC IN POLAND"
http://www.agrar.huberlin.de/wisola/ipw/ceesa/WGb/D9_Karaczun.pdf#search='SUBMITTED%20BY%20ZBIGNIEW%20M.%20KARACZUN 1/1 2006
- EU web 1 - <http://www.europa.eu.int/comm/environment/water/water-framework/overview.html>
- EU web 2 –
<http://www.europarl.eu.int/comparl/envi/pdf/implementation/is20031002.pdf>
- EU web 3 - http://europa.eu.int/comm/regional_policy/funds/procf/cf_en.htm

- The urban waster water treatment directive – directive 91/271/EEC
<http://www.europa.eu.int/comm/environment/water/water-urbanwaste/directiv.html>
- The nitrates directive – Directive 91/676/EEC
<http://www.europa.eu.int/comm/environment/water/water-nitrates/directiv.html>
- Commission, 2002. (Report from the commission) *Implementation of Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources Synthesis from year 2000 Member States reports* http://europa.eu.int/comm/environment/water/water-nitrates/91_676_eec_en.pdf
- Commission, 2004. (Report from the commission) *Implementation of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment, as amended by Commission Directive 98/15/EC of 27 February 1998* http://europa.eu.int/eur-lex/en/com/rpt/2004/com2004_0248en01.pdf
- EEA, 2005. “Effectiveness of urban wastewater treatment policies in selected countries: an EEA pilot study”
http://reports.eea.eu.int/eea_report_2005_2/en/index_html_local 4/1 2006
- SEC(2004) 1025. 2004. COMMISSION STAFF WORKING PAPER *Fifth Annual Survey on the implementation and enforcement of Community environmental law 2003*
- Little, Richard, 2005, “International regimes” in Baylis & Smith (ed.) *the Globalization of World Politics, an introduction to international relations*, New York, Oxford University Press Inc.