

**Policy change and
learning: Implementing
EU environmental policies
affecting agriculture**

Doctoral Dissertation

Laura Kröger



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Policy change and learning: Implementing EU environmental policies affecting agriculture

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Abstract

European policy initiatives represent a very significant external effect to national policy systems in Europe. The adaptation of the environmental policy of the European Union (EU) has been a demanding task for the member states, especially in situations where a member state must implement a new EU regulation which differs significantly from the existing system. This thesis aims to show whether and how the implementation of the EU environmental policy could be improved through policy learning. The results are based on two case studies: the development of agri-environmental policy in Finland and the implementation of the Water Framework Directive (WFD) in Ireland.

Having become a member of the EU in 1995, Finland was required to implement the EU agri-environmental regulation (No. 2078/92). As a result, the national agri-environmental policy changed in terms of content and style. In this thesis, the agri-environmental policy process is examined by applying historical institutional analysis, the advocacy coalition framework (ACF) and the policy learning approach. These three theoretical approaches are combined in order to obtain a comprehensive picture of policy development. This thesis shows that these approaches are complementary, each contributing to the explanatory power.

The institutional analysis shows that the institutional structures changed due to the membership: the formal structures changed almost overnight and, as a result of increased cross-sectoral cooperation and policy learning, the informal structures also changed. By applying the ACF, it is shown utilising interview data and policy documents that a new agri-environmental policy subsystem was established. The changes in coalition structures over a decade were also identified. The results show that traditionally there were two distinct coalitions, namely agricultural and environmental, but after years of co-operation and mutual learning, a new agri-environmental coalition was gradually established. However, even if three coalitions can now be identified at policy formation level, only two can be identified at policy implementation level.

The implementation of agri-environmental policy was studied in one administrative region, namely Uusimaa, located in southern Finland. Institutional structures were examined and their relationship with observed 'new ways of doing things' were analysed. Finally, the effects of their interaction to the policy process are assessed. It was shown that informal institutions can promote policy learning but, for improving implementation, they can be used only up to a certain level. When this level is

reached, formal institutional constraints prevent further development occurring. The study on the implementation of the WFD in Ireland examines whether policy learning can improve implementation. The results show that promoting learning affects implementation through greater networking both at local and national levels. However, as in the Finnish case, results show that only a certain degree of learning can be encouraged before formal institutional constraints are encountered that limit learning.

The adaptation of EU environmental policies is an interesting research topic, not only because of the policy process itself but also because of the actors and context in-

involved. These actors and contexts are not only found in Finland and Ireland, they are common when radical policy changes occur. Therefore, the results will yield some lessons for wider applicability. This thesis shows evidence that during policy processes actors can change their policy beliefs as a result of policy learning, and yet the role of learning is of central importance in policy development.

Key words:

agri-environmental policy, implementation, policy learning, advocacy coalition framework, institutional analysis

Politiikkamuutos ja oppiminen: Maatalouteen vaikuttavan EU:n ympäristöpolitiikan toimeenpano

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Tiivistelmä

Euroopan unionin (EU) lainsäädäntö ja politiikka aiheuttavat muutospaineita jäsenvaltioiden institutionaalisille rakenteille ja päätöksentekojärjestelmille. Se, kuinka paljon EU vaikuttaa jäsenmaihin, vaihtelee maittain esimerkiksi maan koon, yhteiskunnallisen rakenteen ja päätöksentekomekanismien mukaan. Tästä seuraa, että EU:n tekemät päätökset saatetaan eri jäsenmaissa voimaan hyvin eri tavoin. On arvioitu, että jopa 80 prosenttia jäsenmaiden uudesta ympäristölainsäädännöstä on peräisin EU-elimistä. Ympäristöpolitiikka onkin yksi laajasti eurooppalaisyhteistyötutkimuksessa käsitelty teema.

Tässä tutkimuksessa tarkastellaan EU:n maatalouden ympäristöpolitiikan vaikutuksia Suomessa EU-jäsenyyden aikana sekä vesipuitedirektiivin toimeenpanon valmistelua Irlannissa. Tarkoituksena on selvittää, voidaanko EU:n ympäristöpolitiikan toimeenpanoa parantaa politiikkaoppimisen avulla.

EU:n maatalouden ympäristöasetus (No. 2078/92) edellyttää jäsenmaita laatimaan maatalouden ympäristöohjelman. Ohjelman toimeenpanosäädökset puolestaan edellyttävät maataloushallinnon toimivan yhteistyössä ympäristöhallinnon kans-

sa. Koska ennen EU-jäsenyyttä Suomessa ei ollut viljelijöitä sitovaa ympäristöohjausta eikä viranomaisyhteistyötä juuri tehty, jäsenyys vaikutti merkittävästi sekä Suomen maatalouden ympäristöpolitiikan sisältöön että hallinnon rakenteisiin. Tässä tutkimuksessa maatalouden ympäristöpolitiikan muotoutumista ja toimeenpanoa tarkastellaan historiallisen institutionaalisen analyysin, Paul Sabatierin kehittämän kannatusryhmämallin (Advocacy coalition framework) sekä politiikkaoppimisen teorioiden avulla. Nämä kolme teoreettista lähestymistapaa yhdistämällä pyritään saamaan kokonaisvaltainen kuva politiikan kehittymisprosessista.

Institutionaalinen analyysi keskushallinnon tasolla osoittaa, että EU-jäsenyys muutti formaaleja institutionaalisia rakenteita kuten lainsäädäntöä ja hallinnollisia proseduureja hyvinkin nopeasti. Lisääntynyt hallinnonrajat ylittävä yhteistyö, uusi tutkimustieto ja kertyneet kokemukset puolestaan vaikuttivat vähitellen myös epävirallisiin rakenteisiin kuten toimijaverkostoihin ja käytännön toimintamalleihin. Kannatusryhmämalli puolestaan osoittaa, että maataloussuuntautuneen ja ympäristöpainotteisen kannatusryhmän rinnalle on muodostunut kolmas, maata-

louden ympäristöpolitiikan kannatusryhmä. Tämän uuden kannatusryhmän jäsenet korostavat sektoreiden välisen yhteistyön tärkeyttä. Heidän tavoitteenaan on suojella ympäristöä ottaen samalla huomioon myös maatalouden taloudelliset reunaehdot. Uuden kannatusryhmän syntyminen on selvä merkki siitä, että toimijoiden asenteet ja preferenssit ovat muuttuneet, mikä puolestaan indikoi politiikkaoppimista tapahtuneen.

Maatalouden ympäristöpolitiikan toimeenpanoa tarkastellaan yhden hallinnollisen alueen, Uudenmaan tasolla. Ensin karroitetaan toimeenpanon institutionaaliset rakenteet ja niissä tapahtuneet muutokset, minkä jälkeen otetaan tarkempaan tarkasteluun havaitut ”uudet tavat tehdä asioita”, ja lopuksi arvioidaan uusien toimintatapojen vaikutuksia toimeenpanoprosessiin. Tulokset osoittavat että maatalous- ja ympäristöviranomaisten alueellinen yhteistyö on vakiintunut. Alueelliset toimijat ovat kehittäneet uusia käytännön toimintamalleja ja yhteistyömuotoja, jotka helpottavat toimeenpanoa.

Analyysi vesipuitedirektiivin toimeenpanon valmistelusta Irlannissa osoittaa, että politiikkaoppimisen avulla voidaan lisätä eri toimijoiden verkottumista ja siten parantaa sekä horisontaalista, eri sektoreiden välistä että vertikaalista, eri hallinnon tasojen välistä yhteistyötä. Johtopäätökset EU:n ympäristösäädöksen toimeenpanosta ovat hyvin samanlaisia sekä Irlannin että

Suomen osalta. Yleistäen voidaan todeta, että uudet yhteistyömallit ja muut epäviralliset rakenteet tukevat politiikkaoppimista, mutta politiikan muutoksen näkökulmasta niillä päästään ainoastaan tietylle tasolle asti. Kun tämä taso on saavutettu, olemassa olevat institutionaaliset rakenteet ja hallinnolliset proseduurit estävät muutoksen etenemisen. Poliitiikkaoppiminen ei siis automaattisesti tarkoita politiikan kehittymistä ja paranemista.

EU politiikan toimeenpanon vaikutukset ovat kiinnostava tutkimuskohde, ei ainoastaan ympäristöpolitiikan tutkimuksen vaan mukana olevien toimijoiden ja kontekstien näkökulmasta. Samat toimijat ja kontekstit ovat löydettävissä, ei ainoastaan Suomesta ja Irlannista, vaan useimmista tilanteista, joissa tapahtuu merkittävä politiikkamuutos. Siksi nämä tulokset ovat ainakin osittain yleistettävissä muihin vastaaviin tilanteisiin. Tämä tutkimus osoittaa, että politiikkaoppiminen voi muuttaa toimijoiden näkemyksiä ja preferenssejä, joten sen merkitys politiikkaprosessien kehittämisessä on erittäin keskeinen. Uusien toimintatapojen vahvistuminen tarvitsee tuekseen monitasoista politiikkaoppimista.

Avainsanat:

maatalouden ympäristöpolitiikka, ympäristötuki, toimeenpano, politiikkaoppiminen, institutionaalinen analyysi

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List of original publications

This thesis consists of the Summary and the following five articles. The Roman numerals (I–V) are used when referring to these articles in the text.

- I **Kröger, L. 2008.** Institutional Change of the Agri-environmental Governance in Finland. *International Journal of Organizational Theory and Behavior* 11(1): 65–87.
- II **Kröger, L. 2005.** Development of the Finnish Agri-environmental Policy as a Learning Process. *European Environment* 15: 13–26.
- III **Kröger, L. 2008.** Searching for New Ways of Doing Things: Agri-environmental Policy Implementation in Uusimaa, Southern Finland. Submitted manuscript.
- IV **Kröger, L. & Sabatier, P. 2008.** Changing Structures of Advocacy Coalitions: The Case of Finnish Agri-environmental Policy. Submitted manuscript. (*)
- V **Flynn, B. & Kröger, L. 2003.** Can policy learning really improve implementation? Evidence from Irish responses to the Water Framework Directive. *European Environment* 13(3): 150–163. (**)

(*) Kröger is the responsible author of this article. She collected and analysed the empirical data and wrote the manuscript. Professor Paul Sabatier contributed to the article in the form of discussions during a PhD course at the University of Southern Denmark, October 4–11, 2006 and afterwards by commenting different versions of the manuscript.

(**) Dr. Brendan Flynn from the University of Ireland, Galway, is the responsible author of this article. Kröger carried out the interviews and analysed the data under his supervision. The manuscript for the article was written in collaboration.

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1 Introduction

The implementation of the environmental policies of the European Union (EU) is a demanding task for the member states (e.g. Jordan et al. 2002, Page 2003, Jordan and Liefferink 2004, Börzel 2007). Therefore, studies on the implementation processes of the EU environmental policy offer interesting cases as examples of policy change from the perspective of policy analysis.

For analysing policy processes in the EU, the concept of Europeanisation has recently become fashionable in European Studies (for a comprehensive overview of literature see e.g. Graziano et al. 2007). Europeanisation is often defined as the process of European integration which implies a shift in decision making from national member state level to collective decision making at EU level (Schmidt 2002). Such decision-making generates the economic, institutional and conceptual forces for change in the politics, policies and practices of the member states. It has been widely agreed that, as national administrative structures and policy styles are concerned, the adaptation of EU policies appears to have taken place according to the pre-existing national institutions of the member states (e.g. Bennett 1991, van Waarden 1995, Knill and Lenchow 2000, Hèritier 2001, Jordan and Liefferink 2004). However, the impact of the EU on the policies of member states is different. Some member states have undergone deeper changes than others have. The more institutional congruence between the EU and domestic ways of doing things, the fewer requirements for institutional change and adaptation usually exist (Börzel and Risse 2006). As Schmidt and Radaelli (2004) put it, the better the 'fit' of national policies with EU policies, the more likely the country will have fewer problems adopting the EU policy.

During the past 20 years, environmental problems in agriculture have increased. These problems are mostly due to the greater intensification, higher productivity and concentration of production. In the middle of the 1980s, the European Commission underlined in its Green Paper (EC 1985) that environmental policies must set the framework in which agricultural production takes place. The idea of combining environmental and agricultural policies was then an important pillar in the reform of the Common Agricultural Policy (CAP) in 1992. The main instrument for harmonising these two policy sectors is the agri-environmental regulation 2078/92 (in 1999 moved into regulation 1257/99; and in 2005 moved into regulation 1698/2005) (Whitby et al. 1996, Brouwer et al. 1998, Buller et al. 2000). Each member state must implement an agri-environmental support scheme. Schemes must be drawn up for a minimum period of five years and they shall reflect the diversity of environmental situations, natural conditions, agricultural practices, and the types of farming of the region. The environmental priorities of the EU should also be taken into account in the schemes. The implementation of agri-environmental policy reflects the interaction between agricultural and environmental policy sectors. Differences in implementation thus reflect the differences in national systemic factors (Weale 1991) or in policy belief systems (Sabatier 1986).

When a new member joins the EU, it faces an enormous challenge to implement the whole of the EU legislation during a relatively short transition time. For example, as a result of Finland having become a member in 1995; the Finnish agri-environmental policy has quite recently undergone significant changes, both in terms of content and institutional structures. Finland has had to accommodate its national agricultural policies

to the principles and objectives of the CAP, its accompanying measures, such as the agri-environmental regulation, and to the environmental legislation of the EU. From that moment on, the Finnish agricultural policy was based on the EU principles and objectives. From the economic perspective, the changes for agriculture were considerable. During the first week of 1995, the market prices for agricultural products fell to less than half the prices of the previous year due to the opening of the markets. The decrease of market prices was compensated with financial support schemes. The agri-environmental programme 1995–99 was one of the schemes to help Finnish farms from falling to financially unsustainable conditions of the EU market. This income support aspect was an important element of the programme. However, as Siikamäki (1996) noted, despite also having other than environmental objectives, the agri-environmental programme was expected to cause a shift towards environmentally sound production methods.

Another environmental regulation concerning agriculture is the Water Framework Directive (2000/60/EC) agreed on by the European Parliament and the Council of Europe in 2000. The overall objective of the Water Framework Directive (WFD) is to achieve a 'good' ecological status for all water in Europe by the end of 2015. Given the past improvements in reducing point source pollution, the emphasis of the WFD will be on minimising non-point source pollution, which will cause additional challenges for agriculture. The directive is a combination of voluntary and command-and-control approaches and it represents a shift from a sectoral top-down to a horizontal policy style. The key activities include co-ordination of administration within river basin districts, public participation and recovery of costs for water services. It embodies a number of requirements for co-operation between different water use sectors, including agriculture. Because of very demanding policy objectives

and other requirements, the WFD embodies many provisions which specifically encourage policy learning at the implementation stage. Implementation of the WFD in Ireland offers an interesting case study. As in Ireland there is very limited tradition on horizontal co-operation and public participation in environmental policy, new administrative structures and participatory practices needed to be established.

Policy style

The adoption of the EU agri-environmental regulation 2078/92 changed the Finnish agri-environmental policy style (see also Jokinen 1997, 2000, Niemi-Ilahti and Jokinen 1999, Yliskylä-Peuralahti 2003, Kaljonen 2006) i.e. the procedures of policy formation and implementation (Richardson et al. 1992). The transformation of the highest decision-making power to the EU Commission and Parliament reduced the political and administrative power at national level. The regulation required co-operation between agricultural and environmental administration. Since there was hardly any history of such cross-sectoral co-operation, it led to changes in national decision-making processes, administrative procedures and operational practices. The administrative traditions between the sectors have been and still are rather different. The agricultural administration has centralised hierarchical tradition, while environmental administration has more decentralised, co-operative and cross-sectoral tradition (Sairinen 2000, Joas 2001). The key issue here is how well the national institutional structures 'fit' to the new policy context and, furthermore, how much the national policy style and institutional structures actually changed as a result of the EU's influence.

Policy content

The formation of national agri-environmental programmes was left to the member states (Whitby 1996). As a consequence,

the programmes varied substantially from country to country with regard to policy priorities, measures and implementation (Buller et al. 2000). The Finnish agri-environmental programme 1995–99 had comprehensive and ambitious environmental objectives; it aimed to reduce the load of nutrients on watercourses, manage the rural landscape and preserve biodiversity in the rural environment. In addition to the environmental objectives, the programme also had income support elements. The programme introduced, for the first time, voluntary economic environmental policy instruments to the agricultural sector (Vehkasalo et al. 1999). While the agricultural sector emphasises the importance of economically profitable production and yet favours subsidies, the environment sector demands more regulative control-and-command types of policy instruments. Yet to understand policy the policy content, it is crucial to identify which actors were involved in the policy preparation, which strategies they used to incorporate their policy beliefs into the scheme and how the policy content was decided upon.

Policy learning

Policy processes can be viewed as learning processes. To define policy learning, a seminal definition by Hecló (1974) is often referred to in literature. He defined learning as relatively enduring alterations of thought or behaviour resulting from experience. Most of the learning literature shares the view that experience from which lessons can be drawn is the most central aspect of learning. Another important aspect is time, as the adoption of new paradigms and changing values and beliefs (i.e. learning) may take years. Therefore, learning approaches underline that to understand learning-based policy change a relatively long time perspective is needed, even a decade. Recently with the emergence of the new governance, learning is presented in official documents as an essential component of EU governance (Radaelli 2008).

In order to assess the role of policy learning, the development of Finnish agri-environmental policy and the implementation of the WFD in Ireland are examined. Agri-environmental policy development in Finland presents an opportunity to examine how and what the policy actors have learned during the past decade and then to assess the role of learning in policy development. Ireland has faced serious problems in implementing EU environmental policies. In fact, Irish efforts of implementing EU environmental policies have been remarkably poor (OECD 2000, Lehane et al. 2002). There is a demand for change in environmental policy structures and practices. The initial response to implementing the WFD presents an opportunity to identify favourable and discouraging features for the improvement of implementation from the perspective of policy learning. These two cases aim to show whether and how EU environmental policy implementation processes could be improved through policy learning.

The summary essay is organised in six chapters. In this introductory chapter, the thesis is placed in the wider context of the discussion on Europeanisation, but at the same time its scope is narrowed down to policy content and style and to policy learning. The next chapter introduces the aims and objectives of the thesis. Chapter 3 then discusses the choice of theoretical approaches and how different approaches are linked. This chapter consists of three parts, each one introducing one approach, its strengths and weaknesses and relations with the other approaches used. Next, Chapter 4 describes the sources of data and the methods used for analysis. In Chapter 5, the main results of the articles (I–V) are summarised. In the final chapter, some suggestions are made with respect to theoretical implications.

The thesis consists of the summary essay and five articles (I–V). The first article describes and interprets institutional devel-

opment of the Finnish agri-environmental policy in the theoretical framework of historical institutionalism (I). The second article examines the agri-environmental policy formation process through the lens of the ACF complemented with the categorisation of policy learning into different orders based on Hall (1993) (II). The third article examines the implementation of agri-environmental policy in the Uusimaa region in southern Finland to see which structures

and practices support the implementation process (III). The fourth article is based on the findings of the previous articles. It is more theoretical in nature and it proposes a new hypothesis to the ACF (IV). The fifth article examines the implementation of the WFD in Ireland by using the learning based theories of policy change in order to look at evidence on policy learning (V).

2 Aims and objectives of the thesis

The objective of this study is to analyse the role of learning in policy process, focusing on EU environmental policies which have effects on agriculture. *The research question is whether and how policy learning affects the implementation of the EU environmental policy.* The research question can be divided into four more specific research tasks and questions:

1. Examining institutional changes and the significance of these changes for policy development by applying the historical institutional analysis as the theoretical approach. How do changes in institutional structures affect policy development?
2. Understanding the dynamics of policy change, looking particularly at the coalition structures by applying the advocacy coalition framework as the theoretical approach. Can Finnish agri-environmental policy change be understood better by using the ACF as a contextual reference?
3. Searching for empirical evidence on policy learning to assess whether and how policy learning can improve policy processes by applying the policy learn-

ing approaches as analytical tools. Can any causal links between learning and policy change be traced?

4. Assessing the strengths and weaknesses of the three approaches for environmental policy analysis and making recommendations for theoretical development if necessary.

The research is based on two case studies. The first case study describes and interprets the changes in the Finnish agri-environmental policy formation and implementation processes brought by the EU membership. It aims to examine the effects of institutional changes and the roles of different actors in the policy development process. The second case study analyses the implementation of the WFD in Ireland. The aim is to see how policy learning can be encouraged through procedural requirements. However, this research is not comparative in nature, the cases are used as a means to understand policy processes and to search empirical evidence on policy learning. Based on the findings and their reflections to the theoretical framework, more general conclusions on the role of learning in policy development will be drawn.

The development of Finnish agri-environmental policy is an interesting research topic, not only because of the policy development itself, but because of the actors and context involved. The study shows evidence that, during the policy process, actors changed their policy beliefs as a result of policy learning. In terms of context, the national policy changed as a result of an external effect which in this case was brought by the EU membership. These actors and contexts are not only found in the case of Finnish agri-environmental policy. They are common in situations of major policy changes, for example when member states must implement a new EU regulation which differs significantly from their existing system, as the case of implementing the WFD in Ireland shows. The results could then yield some lessons for wider practical applicability.

The time span of the Finnish case begins when Finland started preparing for the first national agri-environmental programme in the early 1990s and ends when the peri-

od of the second agri-environmental programme finishes in 2006. The study is restricted to the development of agri-environmental policy on the Finnish mainland¹. The focus is on policy formation at central governmental level and on policy implementation at regional level. Since the local (municipality) level only performs executive tasks relating to agri-environmental programme, it is left outside of the focus of this research.

The scale of the Irish case is different, because instead of administrative regions the implementation of the WFD is based on the water catchment areas. Therefore, the study covers actors from central governmental level to individual actors at local level. The study focuses on the initial implementation responses of a directive which has a very long implementation time frame extending as far as 2015. The initial responses are, however, very significant because the policy process is path-dependent, therefore the initial decisions structure will inform later implementation.

3 Theoretical framework — the problem of policy change

Policy change is usually a gradual process, which makes it difficult to distinguish the impacts of different causes of change. There is wide theoretical literature which describes and explains policy changes in various ways. A very interesting aspect of these analyses concerns how to establish a link between institutions and policy change. Schmidt and Radaelli (2004) pointed out that in the EU context there are risks involved in such an analysis. First, there is a risk of prejudging the significance of EU policy, whether in terms of the constraints it places on member states or in terms of effect on a member state. Second, the approach may lead a re-

searcher to adopt a top-down perspective, in which the problem of national policy-makers is all about putting EU policy into practice while the process is much more complex than that.

To avoid these risks, the pre-existing national institutional structures and their changes are first examined through a historical institutional analysis. After that, the

¹ The Swedish-speaking island, the province of Åland, enjoys considerable autonomy, including its own agri-environmental programme which was left outside of this research.

national policy actors at each level of governance and their effects on policy change are identified through the lens of the advocacy coalition framework (ACF). Policy actors are tied to the institutional structures which define the resources and constraints they face and as such directly affect the range of their actions. Actors' ability to dominate the policy system is thus determined by institutional structures.

The historical institutional analysis is used for describing the institutional context and the evolution of institutions. The approach embraces the idea that institutional change is a path-dependent process. Path-dependency means that the institutions which guide decision-making reflect historical experience. As a result, the institutional structure which existed before determines the limits of possible changes. The historical institutional analysis presents a good methodology for understanding the evolution of institutions over time and how institutional structures constrain and refract policies (Hall 1986, March and Olsen 1989, Thelen and Steinmo 1992, Hall and Taylor 1996).

The advocacy coalition framework is an actor-based framework developed for analysing policy change (e.g. Sabatier and Jenkins-Smith 1993). It focuses on ideologically based advocacy coalitions which consist of actors from a variety of public and private institutions who share a set of basic beliefs and show co-ordinated activity over time. The advocacy coalition framework assumes that each coalition seeks to influence the policy process in order to achieve their policy goals. The competing advocacy coalitions thus work to materialise their belief systems through a policy change. According to the advocacy coalition framework, policy change is a result of policy learning and external effects to the subsystem, such as the EU membership.

The historical institutional analysis and the advocacy coalition framework share the

idea of bounded rationality as the model of individual behaviour (I–V). Bounded rationality refers to the limited capacities of actors to collect and process information and use it to make decisions (Jones 1999). Both approaches then accept the proposition that, due to insufficient information, actors' perceptions are guided by their beliefs (see e.g. March and Olsen 1984, Simon 1984, Leach and Sabatier 2005). Besides limited cognitive capacity, there are other limitations to rationality in real-life policy-making (Hogwood and Gunn 1984). These limitations could arise from multiple values, given that there is no purely rational way of resolving a conflict of interests. Moreover, even if an individual policy-maker could overcome his personal limitations, the organisation in which he belongs can limit his behaviour. Other things could also cause limitations to rationality in policy-making, for example resources, time, precedents, and expectations.

While policy-makers seek to be as 'rational' as possible, policy learning becomes of central importance. It is seen as a prerequisite for a policy change in the advocacy coalition framework, whereas the historical institutionalism sees it as a means of change. Both approaches assume that learning is instrumental: that is, the actors of a policy system seek to understand the world better in order to further their policy objectives. The concept of policy learning is used to bridge the gap between institutional and actor-centred approaches.

In the following paragraphs, the historical institutional analysis, the advocacy coalition framework and the policy learning approaches are described in more detail. At the end of the theoretical chapter, the strengths and weakness of each approach are summarised.

3.1 Historical institutional analysis

Institutions in this research are examined through the lens of the historical institutionalist approach (Steinmo et al. 1992, Campbell 2004, Sanders 2006)². The core assumption of this approach is that ‘institutions matter’. According to Thelen and Steinmo (1992), institutions are considered to constrain and refract policies, but they are never the sole ‘cause’ of outcomes. The concept of path-dependence is of central importance of the historical institutionalist approach. Path-dependence refers to the process in which each step in a particular direction makes it harder to reverse the taken course. Feedback mechanisms in a way reinforce decisions which have been made in an early stage of a process (Thelen 1999, Mahoney 2000, Pierson 2000). Decision-makers tend to make decisions which lead only to marginal changes from the status quo. As a consequence, the institutional structure which existed before determines the limits of possible changes.

Historical institutionalists view institutions as formal and informal rules, procedures and norms which structure conduct³. This definition enables analysis of how these dimensions affect each other, and how their

interaction is affecting institutional change. Formal institutions include legal systems, administrative structures and procedures whereas informal institutions include co-operation, networks and norms. North (1990) argued that different dimensions change at different speeds in ways which have significant effect on institutional outcomes. More specifically, he argued that formal institutions can change more rapidly than informal institutions which are embedded in the customs, norms and traditions. In other words, legislation, regulations and administrative structures can be changed more easily than the way people think and act in their everyday life.

Historical institutionalism argues that institutional context shapes both the strategies and the goals which actors pursue. Seemingly neutral rules and structures actually embody values and thus determine participants’ behaviour within given context. However, as Majone (1989) pointed out, policy makers not only pursue their goals within existing institutional structures, but they also strive to change those existing limits in their favour. While the institutional structures affect policy outcomes, according to March and Olsen (1989), there are also other aspects which matter, such as organisational cultures and administrative practices. On the other hand, the same institutions can have different consequences under different conditions. This disentanglement of institutional effects is particularly difficult in multilevel settings (March and Olsen 2006).

The pattern of institutional change is seen as being incremental and evolutionary in nature, which makes it difficult to distinguish the impacts of different causes of change. Change is seen as the consequence of action, filtered through perceptions of an institutional context which favours certain strategies, actors and perceptions over others. The organisational structures, internal processes and other specific features help to explain policy outcomes. Since ac-

² New institutionalism is usually divided into three schools of thought: rational choice, organisational and historical institutionalism (see e.g. Hall and Taylor 1996, Campbell 2004, Rhodes et al. 2006).

³ The term institution has been used in many ways to refer to a range of different things. It is used in everyday language to refer to entities as seemingly disparate as bands, nation’s constitutions or even persons such as a president. Most definitions of institutions are descriptive and encompass diverse social entities. One of the most widely used theoretical definitions of institutions is that of North (1990): “Institutions are the rules of the game in a society, or more formally, are the humanly devised constraints that shape human interactions.”

tors are knowledgeable and reflexive, they monitor the consequences of their action. Doing so, they learn gradually which policies and institutions best suit their purposes (Hecló 1974, Pierson 2000). There is thus the possibility that lessons may be drawn from past experience, resulting in new strategies being put forward (Bulmer 1998). This strategic learning then yields to the revision of perceptions of what is feasible, possible and desirable in the light of actors' assessments of their own ability to realise goals as they assimilate new information and as they reorient future strategies in the light of such knowledge of the context as a structured terrain of opportunity and constraints (Hay and Wincott 1998). This is as far as the historical institutionalists have emphasised the importance of policy learning.

Historical institutionalism is not a grand theory. On the contrary, it engages in continuous dialogue between different theoretical approaches and empirical settings searching to arrive at understanding how political and economic decision-making is affected by institutional arrangements. Thelen and Steinmo (1992) pointed out that the use of different theoretical angles, broad perspectives and a large array of analytical tools is an advantage of historical institutionalism. On the other hand, this quite eclectic approach can also be considered a weakness, the lack of a single parsimonious theoretical core⁴. Sanders (2006) noted that the place to look for answers to great questions of society is in the institutions and over longer landscapes of history.

Institutional analysis has been criticised for having an inadequate understanding of change (Thelen and Steinmo 1992, Scott 2001, Lieberman 2002). The critics have pointed at, for example, mistaking evo-

lutionary developments for revolutionary shifts and failing to identify the continuity during the episodes of institutional changes (Schmidt 2002). It is quite evident that there are problems in explaining rapid, revolutionary changes with an analytical framework where the emphasis is on path-dependence. Campbell (2004) pointed out that the problem of explaining changes is because institutionalists rely on causal concepts but often without specifying the underlying mechanisms or processes by which change occurs. Hirsch (1997) claimed that neglecting mechanisms undermines the empirical and theoretical credibility of the arguments of institutionalists.

3.2 Advocacy coalition framework

The advocacy coalition framework (ACF) deals with the dynamics of both stability and change in the policy process. Since both aspects are of central importance in policy development, it was chosen as the basic theoretical framework for analysing the change of the Finnish agri-environmental policy.

The use of the ACF to examine the policy process is based upon three precepts (Sabatier and Jenkins-Smith 1993). First, actors are assumed to hold a certain set of policy beliefs and seek through the policy process to translate these beliefs into policies and programmes. Sabatier (1998) offered a list of normative and empirical components of the policy belief systems. The idea of such belief systems is preferred to the concept of interest on the basis that it is easier to determine actors' beliefs than their interests. Furthermore, while belief systems can incorporate self-interest and organisational interests, they also allow actors to establish goals in different ways and are therefore more inclusive than interests. Second, actors holding similar beliefs tend to work together as a coalition. The belief systems of these coalitions reflect those of their constituent members. The coalitions

⁴ Due to this feature, historical institutionalism is particularly vulnerable to criticism from many standpoints.

constitute a good means to aggregate actors and are superior to the alternative of considering organisations as dominant actors or of considering actors individually which could be unmanageable. Third, governmental policies and programmes incorporate normative values and implicit theories about how to achieve their objectives, and can therefore be conceptualised in the same manner as belief systems. This correspondence of belief systems and governmental policies provides a means by which the influence of various coalitions on policy process can be assessed.

According to the ACF, different coalitions compete with each other to dominate the policy process within the subsystem and incorporate their policy beliefs into policies by using different strategies and guidance instruments. The balance of power of the competing coalitions within the subsystem can vary, and shifts in this balance can result in changes in policy. A coalition's ability to dominate the policy subsystem is determined by the resources it possesses and the constraints it faces. Schlager (1999) pointed out that the most important constraint of policy-making is the institutional position of an actor, in other words the amount of power to affect the course of policy. The major source of power in subsystems is the formal decision-making authority, which is law-bound and legitimated by others (Ostrom 1990). This type of authority also includes the power not to make decisions. Having the authority to decide on procedural and administrative issues is another important source of power. The degree to which a coalition can dominate a subsystem is a function of a coalition's power relative to that of other coalitions (Sewell 2005). Fenger and Klok (2001) pointed out that interdependency is also related to the role which resources play in enabling actors to take actions.

Actors' pre-existing beliefs influence the filtering of new information. Furthermore, actors may have different types of belief

systems relating to the different institutional contexts to which they belong. Public organisations usually tend to be dominated by the members of a particular profession or discipline who favour policies which are consistent with best practices as defined by their profession. Peters (1989) pointed out that a professional has an internalised value structure promulgated, inculcated and policed by the profession itself. Usually, an organisation also has a mission which tells its members how to prioritise some values over others. The individuals who join the organisation generally come to accept those priorities, whether out of self-selection or gradual indoctrination. Public officials generally ally themselves with the coalition, holding beliefs which are consistent with the mission of their organisation. Timmermans and Bleiklie (1999) pointed out that policy actors and public authorities may have policy beliefs, but the core beliefs for other actors such as businesses, interests groups or scientists may not concern policy but profit or truth. Mintrom and Vergari (1996) noted that core beliefs can be manipulated to some extent, for example by strategic timing or exploiting the institutional settings in which policies are designed.

The ACF assumes that policy beliefs can change over time via policy learning. Time and computational constraints limit the ability of actors to process and analyse information, while the pre-existing policy beliefs act as filters on their perceptions of new information. As a result, actors in separate coalitions perceive the world through different 'lenses' and can have differing interpretations of a given piece of evidence. These lenses also inhibit the receiving of information by coalition members which challenges their policy core beliefs and thus prevent learning from taking place. However, regarding so-called secondary aspects, actors are more willing to revise their beliefs on the basis of new information, the accumulation of experience or changes in conditions. Therefore, when learning takes

place, it affects the secondary aspects rather than policy core beliefs (Jenkins-Smith and Sabatier 1994). These ideas are consistent with different categorisations of policy learning (e.g. Hall 1993, Glasbergen 1996).

The ACF has been criticised in that it neglects the intergovernmental relations, particularly the division of authority between national governmental and regional levels (see e.g. Sewell 2005). The approach deals mainly with policy formation and does not pay attention to policy implementation. Actually, the original approach does not deal with multi-level context, which could be considered as one of its main weaknesses. Fisher (2003) noted that by neglecting the historic context, the ability of the ACF to explain why and how policy change comes about is questioned. The coalition concept is too rigid (Hysing and Olsson 2008), lacking differentiation between types of coalitions and dynamics within coalitions (Peters, 1998) and there is an analytical problem in explaining how the advocacy coalitions themselves change (Dudley 2007). Institutional heterogeneity within coalitions may create co-ordination problems when different institutional positions of the actors limit their ability and willingness to co-operate with one another (Schlager 1995). These criticisms pointed out that the relationship between subsystem dynamics and resources allocation, which is defined by institutional structures, is another aspect of the ACF which needs further development.

3.3 Policy learning

There are different approaches to policy learning, but they share the basic view that learning takes place in complex arrangements of state and societal actors, in various types of domestic and transnational policy networks and policy communities (Bennett and Howlett 1992). Policy learning occurs in the context of political proc-

ess. The first learning-based theory of policy change developed by Hecló (1974) described 'political learning' as relatively enduring alterations of thought or behavioural intentions which result from experience. In addition to policy-makers' experience, the existing policy matters (Sacks, 1980). However, learning does not always have to draw on one's own past experience; it can also be comparative in focus. Rose (1991) used the concept of lesson-drawing to describe the process by which policies and programmes developed in one country are emulated by others. Busenberg (2001) noted that the accumulation of policy experience over time and continuing advances in science and technology also create learning opportunities for policymakers.

Learning process requires particular institutional arrangements, such as certain procedures and customs which promote individual learning (II, V). There is substantial literature promoting the view that administrative systems which promote learning can be preferable to traditional regulatory approaches (e.g. Sabel 1994, Teague 2001). However, while some arrangements act to promote learning, other institutional arrangements can act as constraints. A fragmented administrative structure, for instance, prevents a flow of information to other departments, thereby inhibiting wider learning. However, as Majone and Wildavsky (1979) pointed out, institutional structures need not be planned to promote learning in order to provide a basis for policy learning; trial-and-error is also a common basis for learning. Furthermore, as Hall (1993) pointed out, learning does not necessarily mean that policy becomes better or more efficient; rather it reflects an attempt to adjust policy in the light of past experience and policy-relevant knowledge.

The difference between learning and adaptation is that in policy-learning the principles, objectives and values underlying

the policy are examined and questioned by actors, whereas adaptation is the ability to change behaviour in order to meet the challenges of new demands without having to evaluate the existing policy and reason its legitimacy (Haas 1990). Adaptation is thus a more practical application of legal and procedural changes corresponding to new policies and programmes. Adaptation may require the re-allocation of administrative competences, establishment of new administrative structures or restructuring the existing procedures and rules. Policy adaptation can happen quite rapidly, e.g. through enforcement from a higher level, while policy learning is a slow cumulative process which requires a longer time period and suitable institutional arrangements to occur.

The problem is to verify that policy learning has occurred. In literature, there are different approaches to this problem. May (1992) noted that, as learning implies improved understanding about policy problems, objectives or instruments, the verifying of learning requires evidence of increased intelligence and sophistication of thought. Eising (2002) suggested that first it has to be shown that actors have changed their preferences and then a policy change indicates that policy learning has occurred. The difficulty of these approaches is to show that actors' preferences or thoughts have changed (V). In their review of literature, Bennett and Howlett (1992) structured the notion of learning according to three questions: who is learning, what is learned and to what effect. Then in order to identify learning, it is often categorised into different types (e.g. May 1992, Hall 1993, Glasbergen 1996, Connor and Dovers 2004) and then features of each type are looked for. Mosher and Trubek (2003) proposed a more practical two-step model for the assessment of learning in policy process. The first step is to look at the process itself to see which institutional arrangements there exist to promote learning. The second is to assess the

relationship between these arrangements and observed policy changes.

The learning theories of policy change have often been criticised for not distinguishing between policy learning and policy change (e.g. Bennett and Howlett 1992, Mintrom and Vergari 1996). However, one important observation found in literature on this topic is that, rather than offering an explanation of change, learning is seen as an instrument to facilitate a policy change to occur. Hence, policy learning is not an instrument to search for truth. As Jordan and Greenway (1998) put it, learning is a means of getting preferred ideas or beliefs reflected in public policy programmes.

3.4 Strengths and weaknesses of the approaches

This thesis combines three different theoretical approaches in order to get a comprehensive picture of policy development. The different approaches are complementary, each contributing to the explanatory power. The strengths and weaknesses of each approach are presented in Table 1.

In the Finnish case study, the historical institutional analysis is used to describe the context and the evolution of institutions of the Finnish agri-environmental policy system. It also shows how institutional structures constrain and refract policies. Because the historical institutional analysis is better for accounting continuity rather than change, the ACF is used to examine the policy change. As the model of the individual behind both approaches is the same, theoretically there should be no obstacles to use them in concert. Both approaches assume that perceptions are guided by beliefs and therefore consider learning instrumental. Policy learning approach with the categorisation of learning into different types is used as an analytical tool to assess which elements affect the policy process both in the Finnish and Irish cases.

Table 1. Strengths and weaknesses of historical institutional analysis, ACF and policy learning approaches.

	Strengths	Weaknesses
Institutional analysis	<ul style="list-style-type: none"> Good for describing context Understanding the evolution of institutions Shows how institutional structures constrain and refract policies Possibility for using different analytical tools 	<ul style="list-style-type: none"> Lack of hard theoretical core Neglects mechanisms of change Neglects issues of power Too strong emphasis on continuity Tends to be static, better for accounting continuity than change
ACF	<ul style="list-style-type: none"> Strong theory with hypotheses Useful for complex analysis Includes power issues Deals with dynamics of stability and change Uses belief systems of coalitions instead of interests of individuals Takes external effects into account Emphasis on policy learning 	<ul style="list-style-type: none"> Neglects intergovernmental relations and division of power between different levels Neglects historical context and institutional development Concept of coalition is too rigid Does not explain coalition changes Neglects co-ordination problems
Policy learning	<ul style="list-style-type: none"> Variety of definitions and categorisations Explains policy changes Links to many approaches Topical discussions 	<ul style="list-style-type: none"> Lack of hard theoretical core Level of abstraction No causality, difficult to verify Difficult to distinguish between learning and policy change

4 Methodology

As described, this thesis consists of several separate studies. In conducting these studies, different methods for data collection and analysis were used. In this section, first the data sources and the methods of analysis are described.

4.1 Data sources

The empirical data concerning agri-environmental policy process was derived from primary and secondary literature reviews supplemented with oral data enquiries and semi-structured interviews with the key actors of policy formation at central govern-

mental level and of policy implementation in the Uusimaa region.

The primary literature included official documents on policy and administration, such as acts, decrees and decisions, ministry circulars, committee and working group reports, target setting programmes etc. The official documents used are listed in Appendix 1. The goal of collecting official documents was to gather as comprehensive a set of material concerning agri-environmental policy formation and implementation processes as possible (I, III). The collation of information started with Internet searches. EU regulations

as well as Finnish legislative procedures can be traced back in electronic form to the early 1990s. Committee and working group reports are published in the publication series of the Ministry of Agriculture and Forestry (MAF) and the Ministry of the Environment (ME), and many of them can be found on the Internet. The other documents were gathered from a variety of sources. Ministry circulars, guidance material and annual reports of numerous bodies were available in the archives of the MTT Agrifood Research Finland. The material for preparing the proposals for national agri-environmental programmes, including minutes of meetings, drafts from various stages, explanatory documents, and other background material, were available in the personal files of a person who has been appointed as a member in several agri-environmental preparing committees. Information was also obtained from other documents such as leaflets, guides and seminar presentations given by the administrative officials. The governmental policy documents and other official material are regarded as reliable in terms of factual information in this research.

Statements given on policy proposals were very important source of data (II, IV). The statements cover different aspects of proposals and are given by different parties involved in or influenced by the policy or governmental programme. These parties include different sectors of administration at all levels, agencies, organisations, businesses, researchers, and other stakeholders, and even individuals. Since statements are meant to influence the policy in question, they are often very detailed and provide reasoned justifications. Therefore, the statements offer a particularly good source of information concerning the policy beliefs of different actors.

The secondary literature sources included agricultural, environmental and administrative research reports, evaluation reports and statistics, to which references are made

when used in the text. Other studies concerned with the Finnish agri-environmental policy formation and/or implementation (e.g. Jokinen 1995, 2000, Juntti and Potter 2002, Kaljonen 2003, 2006, Soini and Tuuri 2000) are used as secondary data sources, mainly relating to the analysis of manifest events, but also to reflect the findings of this study (I–IV).

All the information needed for analysing policy formation and implementation processes was not available through literature. In order to find out the missing facts, several supplementary data enquiries (interviews) were made. The questionnaire for each interview was prepared individually depending on the information needs and the organisation of the informant, which were chosen amongst those involved in the policy process in the stage of preparing for the EU membership. These informants included leading civil servants in the MAF and the ME and long-standing representatives of MTK (Central Union of Agricultural Producers and Forest Owners), ProAgria (Rural Advisory Centres) and SLL (Finnish Association for Nature Conservation). In addition to the actors of the central level, senior officials in the regional environment administration (Uusimaa Regional Environment Centre) and agricultural administration (T&E Centre Uusimaa) were interviewed. The region of Uusimaa was selected for practical reasons as it is situated in southern Finland. Each interview (total 7 interviews) lasted for less than an hour. The interviews were carried out either face-to-face (5) or over the telephone (2). Notes were taken during the interviews.

The informants (Appendix 2) for semi-structured interviews (II, IV) were identified first amongst those who were appointed as members (22 November 1991) in the preparation committee of the rural environmental programme. These informants were asked to recommend some more informants, and the second group was cho-

sen based on these recommendations with so-called snowball sampling. Two of the informants had not participated in any of the policy formation processes. The interviewees are listed in Appendix 2. Interviews usually lasted one to two hours, sometimes even four hours. All the interviews were recorded and transcribed afterwards. In total 13 semi-structured face-to-face interviews were carried out.

Uusimaa region was selected as a case study to analyse informal institutional arrangements, such as horizontal co-operation, networks and voluntary practices (III). First, a literature review was carried out including regional documents, such as administrative regulations, reports and minutes of meetings, as well as non-official documents, such as project reports, Internet pages and brochures (see Appendix 1). In addition to the literature review, semi-structured interviews were carried out. Different actors in Uusimaa region were interviewed, a total of 14 face-to-face interviews. The interviewees included officials from the regional agricultural and environmental administration and from selected municipalities as well as representatives from the provincial associations and projects (Appendix 2).

Empirically, the study of implementation of the WFD in Ireland (V) is based on literature reviews and semi-structured interviews with key persons. The literature consisted of primary and secondary sources. Literature reviews were done through the libraries of the Environmental Protection Agency and the University of Galway and by contacting other bodies in Ireland. Both published and non-published material was used. The key informants for semi-structured interviews were chosen amongst the members of the National Co-ordination Group including officials of different government departments, agencies, local authorities and associations, and on the basis of local knowledge i.e. recommendations from the project leader Dr. Brendan Flynn.

Since most of the interviewees refused to be recorded, the data is based on notes which were made during the interviews.

4.2 Methods of analysis

The multi-theoretical approach applied several methods for data analysis which are described in detail in this section

The evolution of institutional structures

The institutional analysis took a retrospective look at the institutional structures of Finnish agri-environmental policy (I). The time span begins in the early 1990s when Finland started preparing for the EU membership and finishes in 2006 when the second programming period ends. The data collection and analysis techniques of qualitative historical analysis, as represented by historical institutionalism, appeared to be suited for the examination of agri-environmental policy development. Although the historical institutional analysis has been developed in a macro-level comparative context, this study was not comparative. It aimed to describe and interpret the institutional changes and the significance of these changes for the Finnish agri-environmental policy development over time. This was done by tracing, on the one hand, the elements of path-dependency and, on the other hand, the institutional changes in the policy process.

The study followed the procedures proposed by historical institutionalism: qualitative historical analysis, pattern recognition and comparisons over time (Thelen 2004). The events of episodes were used to determine significant institutional changes occurred and the nature of those changes. The method of analysis relied on historical analysis borrowed from historical research aiming to distinguish between manifest and latent events, and to adhere to principles regarding the examination of prima-

ry and secondary source materials (Thies 2002). The manifest events refer to those events which actors were aware of as they occurred, whereas latent events refer to events which actors were not fully aware as they happened and which we can describe only in retrospect. The preparation stage and the beginning of the membership between 1994 and 1995 represent mostly the period of manifest events through which the latent events of policy development are examined. This period encompasses the first stage of the implementation of agri-environmental policy in Finland. According to historical institutionalism, this was the beginning of a process which determined the institutional settings in which subsequent actions take place in a path-dependent way. This period, according to March and Olsen (1989), also determines the attention given to problems, and influences decision-making as much as the assessment of the importance of those problems.

The analysis started by establishing the background and the importance of prior events mostly through secondary literature. After that, based on the content analyses of official documents and supplementary enquiries, the manifest events were identified and put into chronological order and each event was then examined more closely. The aim here was to determine persistence and changes in institutional structures of decision-making, administration and implementation during the preparation stage and in the beginning of the membership. The manifest events were described in detail and then latent events were analysed by examining the processes following the manifest events. The focus of the latter analysis was on institutional arrangements which promote cross-sectoral co-operation and successful implementation. Special attention was paid on the interplay between formal and informal institutions. The latter part relied more on informal documents and supplementary interviews, because of-

official documents do not generally contain details of such matters.

Policy formation

The agri-environmental policy formation process was analysed with the ACF by concentrating on three separate but interconnected policy formation processes, namely the agri-environmental programme, the Nitrates Directive and the Water Framework Directive (II). By concentrating on these three policy processes, it was possible to examine the changes in policy belief systems, analyse the evolution of the agri-environmental policy subsystem over time and finally assess what role policy learning played in these policy processes.

Since governmental policies or programmes, according to the ACF, can be conceptualised in the same manner as belief systems, it can be assumed, as policy beliefs are difficult to change, that a governmental policy, or a programme in a specific policy subsystem, will not be significantly revised as long as the coalition which instituted the policy remains dominant within that subsystem. This correspondence of belief systems and policies provides a means by which the influence of various actors on policy process can be assessed. As the policies arising from the subsystem reflect the belief system of the dominating coalitions, policy change over time can be determined by the degree to which these beliefs change. Because the processes through which belief system change are often slow and incremental, policy changes tend to be driven by shifts in power resulting from external effects to the subsystem.

The following research questions were identified based on the elements of the ACF:

- What are the boundaries of the subsystem and who are the actors participating in it and what are the policy beliefs of these actors?

- Which coalitions could be identified and how do they interact in the subsystem?
- Which coalitions influenced policy process and what were their resources and constraints (i.e. political power)?
- Which strategies did the coalitions use to when trying to incorporate their policy beliefs into policies?
- Have policy beliefs of actors changed, how and why?
- What were the external effects which have affected the policy domain?

First, the literature review was carried out in the light of these questions. In addition to official documents on policy and administration, an important source of data was the statements given on policy proposals which included information on the policy beliefs of different actors. The interviews with the key persons were then carried out (Appendix 2). To prepare the questionnaire for semi-structured interviews, the research questions above were used. The questionnaire for interviews is in Appendix 3.

All information from the interviews was recorded and transcribed afterwards and then cross-checked and compared with the material from the literature reviews to improve the validity and reliability of the results. The data collected from literature reviews and interviews was qualitative. The use of qualitative analysis is consistent with the majority of previous applications of the ACF to policy change.

Policy implementation

The aim here was to look for empirical evidence on policy learning by focusing on 'new ways of doing things' in agri-environmental policy implementation (III). The analysis followed the two-step model for the assessment of learning in a policy proc-

ess by Mosher and Trubek (2003). First, the institutional arrangements were examined to see whether they promote learning, and then the relationship between these arrangements and observed policy learning was assessed. The analysis started by describing the requirements of implementation based on the regulations and guidelines given by the MAF, and the formal institutional structures for supporting policy learning. This part was based on the previous institutional analysis, supplemented with some additional administrative documents on implementation.

After the literature review, a general questionnaire for semi-structured interviews was designed in order to obtain empirical data on new forms of co-operation, networks and practices. However, as the interviewees represented a very heterogeneous group of actors, the questionnaire for each interview needed to be adjusted depending on the organisation and the duties of the interviewee. The content of interviews thus varied, but the following issues were discussed in each interview.

- Agri-environmental problems and policies in Uusimaa: Importance? Conflicts?
- Involvement in agri-environmental policy issues: How? Role?
- Co-operation: With whom? How? Problems?
- New forms practices: Objectives? Participants? Finance?
- Learning: Information? Education? Experiences? Other arrangements?
- Have others learned? Have you?
- Future: Agri-environmental policy development? Co-operation? Etc.

The problem with these interviews was the scale in which the interviewees operated; some of them were involved in region-wide activities while others were only involved in local-level projects. The other difficulty was a very limited focus of some activities. For example, persons involved in water protection initiatives may not have any connection with people working with biodiversity issues. As a consequence, with the small number of interviews, the results based on this empirical data do not give a comprehensive picture of the co-operation in agri-environmental issues within the Uusimaa region. However, empirical data gives good examples on 'new ways of doing things' and as such provides evidence on policy learning.

The study on the implementation of the WFD in Ireland examined whether policy learning can improve policy implementation (V). The empirical material of the case study is based on written documents and semi-structured interviews with key persons. The questionnaire for semi-structured interviews was based on the literature review. It was designed to provide empirical data on how procedural requirements of the WFD have or have not encouraged policy learning. The focus of the analysis was on the establishment of new networks and/or new networking, and whether public participation has been expanded in response to the requirements of the WFD.

5 Results

In this chapter, the main contribution to the specific research tasks is presented. The first task is to examine institutional changes and the significance of these changes for policy development by using the historical institutional analysis as the theoretical approach (I). The second task is to understand the dynamics of policy change looking particularly at the belief systems of different actors by using the advocacy coalition framework as the theoretical approach (II, IV). These research tasks are carried out through the Finnish case study. The third research task is to search for evidence on policy learning, to assess whether and how policy learning can improve EU environmental policy implementation in the member states (II, III, V). This task is carried out in the case of Finnish agri-environmental policy implementation in Uusimaa and in the case of the WFD implementation in Ireland.

5.1 Institutional changes and their significance for policy development

The aim here is to describe and interpret institutional changes in agri-environmental policy due to the EU membership, and furthermore the significance of these changes for policy development. Because of the path-dependent nature of institutions, a wider historical background of institutions is also described when necessary. The findings in this section are based on the Finnish case study.

The agri-environmental programme 1995–99 was the first significant step in integrating agricultural and environmental policies in Finland (I). However, it was not the beginning of the Finnish agri-environmental policy. Environmental aspects were introduced into agricultural policies in the mid 1970s, but it was not until the mid 1980s that environmental objectives become

precisely formulated (Jokinen 1995). Although some agricultural policy measures with environmental considerations have already been in use before the EU membership, the main purpose of the earlier measures has usually been other than improving the state of the environment. For instance, fertiliser taxation during 1976–1994 was primarily aimed at cutting down the overproduction of grain (Sumelius 1994). In the early 1990s, the environmental problems of agriculture were taken into account at central governmental level by starting co-operation between the MAF and the ME. This co-operation led to the first national rural environmental programme which was based on voluntary instruments; regulations were neglected.

The Finnish agri-environmental programme was a direct response to the EU regulation 2078/92. Because the regulation was approved already in 1992, Finland could not influence the policy-making process, but had to take the existing regulation as it was. The regulation can, therefore, for the purpose of this research, be taken as an external effect on the Finnish policy system (I, II, IV). Nowadays the situation is quite different. Finland is an active member state in the EU policy-making, especially in the issues of its strong national interests. While the MAF was given formal power in the agri-environmental policy, the agricultural administration was compelled to co-operate with the environmental administration. Since there had been hardly any history of such cross-sectoral co-operation, it led to changes in decision-making processes, administrative procedures and operational practices at all levels of administration (I, III). In addition to the administrative co-operation, the integration of environmental issues into agriculture has also increased stakeholder co-operation at each level of administration. The Finnish agri-environmental policy style changed.

Prior to the EU membership, agri-environmental policy was based on voluntary measures and information guidance. Only very limited resources were involved, mostly allowances to produce guidance material and organise education for farmers. The financial situation markedly changed due to membership. The agri-environmental subsidy system is very important as a financial resource, not only for agri-environmental policy but for environmental policy as a whole. For example, in 2005 the total budget for environmental protection in Finland was €969 million, of which the budget for the agri-environmental programme accounted for about a third, €293 million (MTT 2007). Due to membership, ‘big money’ became involved, which turned agri-environmental policy into a more attractive policy field than it had been before. This started a struggle between agricultural and environmental sectors for decision-making and administrative power over the environmental issues of agriculture (II).

The EU membership changed the formal roles of some actors (I). The Central Union of Agricultural Producers and Forest Owners traditionally had a statutory role as a decision-making body in national agricultural policy (Vihinen 1990). Due to EU membership, its role changed from being an institutionalised decision-maker to that of an interest organisation and at the same time the ME became an institutionalised decision-maker. For the first time, representatives from environmental non-governmental organisations (NGOs) were also invited as members to agri-environmental policy committees. These changes moved some of the decision-making power from the agricultural to the environmental sector. As a result, the balance of power among different actors changed. The emphasis of the policy-making process shifted from only stressing the economic interests of farmers to seeking a consensus between economic and environmental interests (I, II).

The formal power in agri-environmental policies was given to the MAF when the EU agri-environmental regulation was applied in Finland. Preceding membership, there was hardly any time for the agricultural administration to prepare for handling the requirements of the regulation. The policy adaptation, which took place right in the beginning of the membership, mainly concerned the changes in administrative structures and procedures required due to new tasks. Because of the risks of malfunction, there was no possibility for major organisational or administrative adjustments within the administration. The pre-existing model of agricultural administration, with some modifications concerning cross-sectoral co-operation, worked out to be suitable also for managing the new tasks and obligations brought by membership (I). Since the national system 'fitted' relatively well with the requirements of EU agri-environmental regulation, the level of congruence with the existing national preferences, structures and practices was high.

The agricultural sector has a strong centralised administrative tradition, whereas more de-centralised, co-operative and cross-sectoral forms of administration are typically used in the environment sector. Since these differences act as constraints for cross-sectoral co-operation, particular institutional structures were established to promote co-operation. These structures included policy committees with wide stakeholder participation, new ways of producing and delivering information, seminars and education, and a variety of piloting and development projects. The idea behind improving policy learning was that successful implementation is dependent on a common understanding of roles and responsibilities, and on good co-operation between agricultural and environmental sectors (II). The supporting of co-operation turned out to be a good strategy since the policy formation and implementation processes have improved over the years, at least partly as a

result of increased cross-sectoral co-operation (I, II, III).

The interplay between formal and informal institutions played an important role in the policy process. While the formal institutions were changed almost overnight, the informal institutions changed gradually over time. Because the informal institutions, norms especially, provide legitimacy to a new set of rules, it took years for the institutional reform to be completely carried out. The adaptation of the policy programme led to an institutional change. However, it seems that once the policy became institutionalised, decision-making and implementation capacities were developed in a way which constrains further changes to occur in a path-dependent way. For example the regional agricultural officers are so strictly tied to the legal obligations and administrative procedures that even if they are willing to increase horizontal cooperation, it is not possible to realize in practice.

5.2 Dynamics of policy change

The aim here is to understand the dynamics of policy change by applying the advocacy coalition framework as theoretical approach. The Finnish agri-environmental policy process is examined here through the lens of the ACF. The development of agri-environmental policy subsystem in Finland corresponds to Sabatier's (1998) idea on subsystems which emerge out of a relatively new issue. As information develops concerning the seriousness of the problem, including the causes and remedial costs, so actors tend to coalesce into distinct coalitions.

The agricultural coalition consisting of representatives from agricultural administration, farmers' union, advisory associations, agricultural research, agri-business and agricultural media has had the definitive decision-making power over agricultural pol-

icies as well as the authority to decide on administrative issues over decades (I). Their believed that farmers are the guardians of environment and their main goal was to defend the economic interests of farmers and their businesses. Agricultural policy-making was depoliticised since opposing interests had been excluded from participating in agricultural policy processes (Vi-hinen 1990). There were no remarkable public, political or parliamentary disputes over the policy principles of agriculture because the coalition had been able to muzzle the opposing voices. The agricultural coalition believed that environmental problems could be solved with technological solutions, and that the best way to protect the environment is to leave it in the hands of farmers (II). When scientific evidence on the negative environmental impacts of agriculture was presented, agricultural coalition suggested more research. Suggesting further research is, according to the ACF, one of the means through which the major coalition will seek to diminish the reasons for change.

The recognition of environmental problems of agriculture in the mid 1980s led to the gradual formation of the environmental coalition within agri-environmental policy subsystem. The coalition consisted of representatives from the environmental administration, environmental associations, environmental research and environmentally oriented media. The environmental coalition was a minority coalition within the subsystem, since environmental administration had no formal position in the agricultural policy. All policy issues concerning agriculture, including agri-environmental issues, were under agricultural administration (I). The main goal of the environmental coalition was to protect the environment and eliminate the damages caused by agriculture. Its members believed that intensive agriculture is damaging the environment, and that the objectives of the agricultural sector are based on economic interests, mostly at the expense of the envi-

ronment (II). They widely agreed that the agri-environmental policy should comply with the polluter pays principle, as other environmental policies do.

The existing scientific data on the environmental effects of agriculture was very limited and sometimes even contradictory, which left room for different interpretations concerning the seriousness of the problem and its causes. As a result, the agricultural coalition was able to refute the arguments of the environmental coalition. It can be seen that there was an unsolved confrontation between economic and environmental interests, which then led to conflicts between environmental and agricultural actors, which in turn reasserted the opposite positions of the coalitions.

The agri-environmental policy development prior to EU membership corresponds to the premise of the ACF that a policy in a specific subsystem will not be significantly revised as long as the coalition which instituted the policy remains dominant within that subsystem. Since the allocation of resources within the subsystem remained unchanged, the power structure did not change and hence the environmental coalition did not obtain policy changing power. The agri-environmental policy subsystem remained in a stable state, and the decision-making power stayed in the hands of the agricultural coalition (II, IV).

The introduction of the EU agri-environmental regulation led to changes in the policy style. While the agricultural administration was given the formal power in the agri-environmental policy, they were compelled to co-operate with the environmental administration. The emphasis of the policy-making process shifted from only stressing the economic interests of farmers to seeking a consensus between economic and environmental interest (II). The policy formation process gradually led to the restructuring of the agri-environmental policy subsystem. In addition to the former

agricultural and environmental coalitions, a third coalition was established through the changeover of some actors from the existing coalitions to the newborn coalition. The new coalition, namely agri-environmental coalition, then consists of members from agricultural and environmental coalitions, whilst the other members remained in the former coalitions (II, IV). The core of the coalition is formed by the staff of the agri-environmental unit which was established in the MAF when the EU regulation was applied. This unit has the authority to decide on procedural and administrative issues regarding the agri-environmental programme. The other members include agricultural staff in ME, agri-environmental organisations and some individuals from advisory organisations. The majority of the researchers in both agricultural and environmental research institutes working with agri-environmental questions are also members of this coalition. The agri-environmental coalition believes that economically-profitable production is of central importance, but at the same time environmental issues must be taken care of. They believe that voluntary measures and economic instruments are suitable for the agricultural sector, but the command-and-control type of regulations are also needed to complete the range of measures. They see the agri-environmental system as being so complex that there is no way for either sector to manage it alone. They consider cross-sectoral co-operation as a necessity and therefore support it as a means for policy improvement (II, IV).

The agri-environmental coalition has become the largest coalition in the subsystem in terms of the number of members (II). The environmental coalition has become very marginal as most of its members moved to the agri-environmental coalition while only the most radical environmentalists stayed. The agricultural coalition still holds the formal decision-making power and hence has remained very influential.

Governmental policies and programmes can, according to the ACF, be conceptualised in the same manner as belief systems. As the policies arising from the subsystem reflect the belief system of the dominating coalitions, policy change over time can be determined by the degree to which these beliefs change. Because the processes through which belief system change are often slow and incremental, policy changes tend to be driven by the shifts in power resulting from external effects to the subsystem. In terms of the ACF, as a result of applying the EU agri-environmental regulation, the environmental administration was given a legal status in agri-environmental policy for the first time. This moved some of the decision-making power from the agricultural to the environmental coalition, and later to the new agri-environmental coalition. However, based upon the power of the agricultural coalition, the agri-environmental programme has a very strong emphasis on the economic interests of farmers.

Another very interesting finding of the research is that even if three coalitions were identified at central level (II), only two coalitions could be identified at implementation level (III). The implementation of the agri-environmental programme brought together agricultural and environmental administrations at regional level for the first time. New co-operative structures, procedures and practices were established. The co-operation between the agricultural and environmental administrations has become an everyday matter; it has become institutionalised (III). At implementation level, discussions mostly concern administrative and operational issues. Since the policy core issues are not on the table, learning occurs at the level of secondary aspects. The policy beliefs of the agricultural and environmental coalitions concerning secondary aspects have moved closer to each other, but the membership of the coalitions has remained stable (IV). Both coalitions agree on the importance of agri-

culture and environmental protection, but their beliefs differ on the relative importance of the issues and on the seriousness and causes of the environmental problems, in other words, on policy core beliefs.

This analysis showed that the level of policy belief system in which policy learning occurs varies between different levels of administration. In the context of multi-level governance, actors at policy-making level are able to examine and question the principles, objectives and values underlying the policy and as a result learning occurs at the level of policy core beliefs, whereas at implementation level discussions mainly concern administrative and operational issues and as a result learning occurs at the level of secondary aspects. At the same time the institutional structures allow the actors to aggregate into coalitions, and even move from one coalition to another at central level, while at implementation level the actors are tied into legal obligations and administrative procedures.

An interesting question concerning the development of the agri-environmental policy subsystem is whether the coalition structure has now stabilised as the policy subsystem has adjusted into the EU policy context, or whether the coalition structure at the implementation level will change over time to become congruent with the structure of the national level.

5.3 Role of learning in policy process

The aim here is to search for empirical evidence on policy learning. The results of this section are based on both Finnish and Irish cases. First, the agri-environmental policy process in Finland is examined to assess what the role of learning is in policy formation at central governmental level. This is followed by an analysis on the policy implementation process in one administrative region in southern Finland. Second, the WFD implementation in Ireland

is analysed to assess whether and how policy learning can improve the implementation of EU environmental policies.

Learning formed a part of the strategy which sought to develop new ways to deal with problems and to overcome the opposition for change, while seeking solutions to practical policy and institutional design problems of the Finnish agri-environmental policy (I). A wide variety of mechanisms were used to support learning, for example, seminars, courses, presentations from researchers and experts, trips to regions to meet the people who are implementing the programme, and to meet farmers (II). Furthermore, policy-makers and scientists worked in close co-operation. Researchers were appointed as members to policy committees, common seminars were held and expert hearings were organised at each step of the process. Research programmes and evaluation studies were also commissioned to obtain scientific information on the environmental impacts of agriculture (I, II).

Policy-makers at central level had a possibility to get both scientific and practical information on the policy issues, to discuss and even question them during the policy formation process. In other words, there were plenty of possibilities and room for policy learning to occur. Evidence shows that, as a result of accumulation of knowledge and policy experience, over a decade of co-operation and mutual learning, policy actors have formed a shared understanding of the key policy issues. This long-term interactive policy process has led to changes in the actors' policy beliefs, which clearly indicate that policy learning has occurred (II). However, despite policy learning, the environmental problems of agriculture have not diminished. Even if the agri-environmental policy can be considered successful from the perspective of policy process (II), it is not environmentally effective enough, as the research programme on the impacts of agri-environmental measures (the so-called MYTVAS

study) and some evaluation reports have shown.

The Finnish agri-environmental programme has comprehensive and ambitious objectives, high uptake rates and a wide set of measures. However, an income support element was reconciled with environmental objectives when the programme 1995–99 was prepared. Over the years, the policy actors have learned to accept the idea that income support for farmers is an important objective of the programme. This embedded objective then limits the possibilities to tighten up the level of environmental requirements, because that would then be against this objective. Therefore, the income support element acts as a constraint for setting stricter environmental objectives or making any major changes to the programme.

The regional agricultural administration, together with environmental administration, is responsible for the implementation of the agri-environmental programme. The administrative traditions and working practices between the sectors are different, and therefore certain new institutional structures were needed to promote cross-sectoral co-operation (III). These structures included both formal and informal institutional arrangements. Formal structures included, for example, procedures for given statements, new processes for information exchange, and annual cross-sectoral seminars. Informal structures included, for example, regional committees, steering groups and common experimentation projects. The cross-sectoral co-operation has become routine also at the regional level. Participants from different sectors, for example, request assistance from each other, partly as formal administrative procedures and partly as informal information exchange. Although the co-operation was initiated as an obligatory practice, it led to new cross-sectoral procedures and to the establishment of some common practices. The changing of behaviour without chang-

es in policy principles and objectives underlying the policy indicates that, instead of learning, the adaptation to the requirements from higher level has taken place (III).

Findings clearly show that changes in operational practices have happened, but formal institutional constraints have prevented actors from making any major changes to the existing administrative structures or procedures. The collective action is influenced by the institutional structures which frame the co-operation and define the resources. Implementation can therefore be improved through informal practices only up to a certain level and, when this level is reached, institutional constraints prevent further changes from occurring. As informal institutions are voluntary in nature, the main requirement for success is that the actors involved share objectives and have common goals. Yet, the issues in which there are disagreements between different actors cannot be developed through informal institutions.

The WFD lays emphasis on the co-operation of all actor groups, interactive decision-making, public participation, and river basin water management. These were all issues which were novel to the Irish system when preparing for the implementation of the WFD (V). These key provisions are to encourage policy learning at the implementation stage. The Irish case showed that promoting policy learning through legal procedural requirements affected policy implementation through greater networking at local and national levels. The improvement of both horizontal and vertical co-operation between different actors on water catchment management can be seen as the backbone of the WFD implementation efforts. In fact, its development has improved the Irish environmental policy expertise as a whole. This implementation approach can be seen as an innovation in the context of Irish administration which has a highly sectoral and centralised

administrative tradition. The actors within the networks have accepted the integrated focus; they have changed their policy beliefs concerning water policy issues. The results point out that only a certain degree of policy learning can be encouraged before the formal institutional constraints are encountered to limit learning (V).

5.4 Theoretical implications

This thesis illustrates the utility of combining different approaches in order to get a comprehensive picture of the phenomena. The approaches used here were complementary, each contributing to the explanatory power. Such a multi-theoretical approach contributes to identifying the different aspects of policy process. Vink and Graziano (2007) pointed out the importance of a wide research scope by stressing that, since EU policies provide not only specific goals and targets but also new resources to national actors, the national domain needs to be investigated in a broad sense to properly understand the dynamics caused by Europeanisation. Policy change is not simply the result of top-down EU policy adoption, but rather a result of decisions taken by policy-makers based on their policy beliefs.

Historical institutionalism offered a framework for describing institutional development over time (I). It focused on historical processes, institutions, actors and the ways in which these interact. Hence, it was a very appropriate tool for reaching a better understanding of the context in which a policy process takes place. While it focused on institutions, actors and their behaviour were not discussed as such. Therefore, in order to get a comprehensive picture of policy development, a supplementary approach was needed to understand the role of actors and the dynamics of policy change (II, III). As the ACF is an actor-centred framework for analysing policy change, it seemed suitable for a sup-

plementary approach to the institutional analysis. The description of the institutional context by applying the historical institutional analysis gave a good starting point for analysing policy change through the ACF. Besides providing a starting point, the analysis defined the constraints and resources of actors, which is an essential part of the ACF.

The ACF proved to be suitable for analysing the agri-environmental policy process in Finland (II, IV). The case fulfils the basic premises of the ACF (Sabatier 1993). The emergence of the agri-environmental policy subsystem and its development from nascent to mature is also consistent with the descriptions by Sabatier (1998). The policy development occurred in Finland as suggested by the ACF, an external effect which changed the balance of power and the allocation of resources between coalitions, together with policy learning, caused a policy change to occur. The ACF helped in understanding the dynamics of the agri-environmental policy development. It highlights the policy learning as an explanatory mechanism of policy change, which this research supports and elaborates. The framework also incorporates a wide range of actors based on their actual involvement in a very appropriate unit of analysis which is a policy subsystem. The ACF focuses on the beliefs of individual actors thus developing a means for explaining reasons and motivations behind the actions.

The analysis of the Finnish agri-environmental policy development showed that institutional constraints faced by actors differ depending on the level of administration, as the degree of freedom of action decreases when moving from central to regional level in the context of a top-down policy (I, II, III). At policy-making level, institutional structures enable actors to ally themselves with other actors holding beliefs consistent with their beliefs regardless of organisational borders. Actors are there-

fore able to move from one coalition to another or even establish new coalitions. The results indicate that a new coalition was established at central governmental level, which according to the ACF is not likely to happen. This study provides evidence that, if the balance of power within a policy subsystem is shifted under the pressure of external effects, the coalition structure can change.

Three advocacy coalitions were identified at policy formation level, but only two at implementation level. There seems to be incongruence between the subsystem structures at central governmental and regional level. Based on these results, it can be said that in a multilevel policy context, the structure of a policy subsystem is not automatically transferred to lower administrative levels when a national policy is implemented. This point draws attention to the weaknesses of the ACF in dealing with vertical relations in a multilevel context. Another weakness of the ACF concerns the framework's negligence of historical context and institutional development.

Results show that in the context of a multi-level system there are more opportunities for policy learning at the policy-making level than at the implementation level. The discussions at the policy-making level concern fundamental policy issues, such as principles, priorities and objectives, i.e. policy core issues. Actors have access to information, and they have possibilities to express their policy beliefs, have them questioned and even change them. At the implementation level, discussions concern

more administrative issues and operational practices, i.e. secondary aspects, while the policy core issues are often excluded. As the policy core issues are not on the table, there is no pressure for changing them. Results indicate that at the national level policy learning takes place at the level of policy core issues. At the implementation level learning takes place at the level of secondary aspects and as a consequence concerns mainly instrumental issues. The level of policy belief system where learning occurs then varies between different levels of administration.

The concept of policy learning was used as an analytical tool to bridge the gap between institutional and actor-centred approaches. Policy learning approach was also used for analysing the implementation of agricultural policy in Finland and the WFD in Ireland. The difficulty is to verify that learning has occurred. There is evidence on learning in both cases. First the actors have changed their preferences, and then changes in behaviour indicate that policy learning has occurred. Policy learning can thus be defined as an instrument which facilitates a policy change to occur. However, the learning capacity of a policy system is limited by the wider context in which the policy process occurs. Learning can therefore improve the policy only up to a certain level, and when this level is reached, changes in institutional constraints are needed for further policy improvements. Policy learning alone may not offer a suitable means for improving the policy outcomes, but institutional changes are required.

6 Conclusions

The objective of this research was to analyse the role of learning in policy process, focusing on the implementation of two EU

environmental policy initiatives in two case studies. These policy initiatives represented very significant effect to the national poli-

cy systems in both cases as the implementation required major changes to the existing national institutional structures. The theoretical framework was based on the strengths of three approaches which are historical institutionalism, advocacy coalition framework and policy learning. The research showed that these approaches are complementary and their combination improves the explanatory power of each individual approach.

Historical institutional analysis offered a framework for describing institutional development of Finnish agri-environmental policy over time. It focused on historical processes, institutions, actors and the ways in which these interact. The results showed that the interplay between formal and informal institutions played an important role in the policy process. While formal institutions were rapidly changed, informal institutions changed gradually over time. Because informal institutions, provided the legitimacy to a new set of rules, it took years for the institutional reform to be completely carried out. However, once the new policy became institutionalised, decision making and implementation capacities developed in a way which constrained further changes to occur in a path-dependent way.

The ACF was used to understand the role of actors and the dynamics of policy change. Results showed that institutional constraints that different actors faced differ depending on the level of administration. Institutional structures enabled actors to ally themselves with other actors holding beliefs consistent to their beliefs at the policy making level while organisational borders prevented such an action to occur at the implementation level. Three advocacy coalitions were identified at the central level and only two coalitions at the policy implementation level. There seemed to be incongruence between the subsystem structures at central and regional levels. From these findings, a more general

conclusion can be drawn that the structure of a policy subsystem is not automatically transferred to the lower administrative levels when a national policy is implemented in a multilevel policy context. From the perspective of policy improvement, the consequences of having different coalition structures at different administrative levels could worsen vertical information flow and feed-back processes from policy formation to implementation and vice versa. A coalition at one level does not necessarily have a counterpart at another level. In these situations, the actors responsible for a particular issue at different levels, even within the same sector, do not necessarily share the same policy beliefs. To overcome this obstacle, emphasis should be put on the vertical cooperation and communication within a subsystem supported by mechanisms and institutional arrangements which facilitate policy learning.

The research on policy implementation in Finland and Ireland suggested that, when preparing and formulating a policy, it is of central importance to develop such institutional structures which also promote its implementation. The more complex the policy issue in question, the greater emphasis should be put on building institutional structures which promote horizontal information exchange, sharing of expertise, cooperation and stakeholder participation, i.e. the means of policy learning.

The overall research question was whether and how policy learning affects the implementation of the EU environmental policy in the member states. The results clearly show that the role of policy learning is of central importance in a successful policy process, but in order to improve implementation, learning needs to be facilitated with certain institutional structures. Learning is limited by the wider context in which the policy process occurs. Learning can therefore improve the policy process only up to a certain level, and when this level is reached, institutional constraints

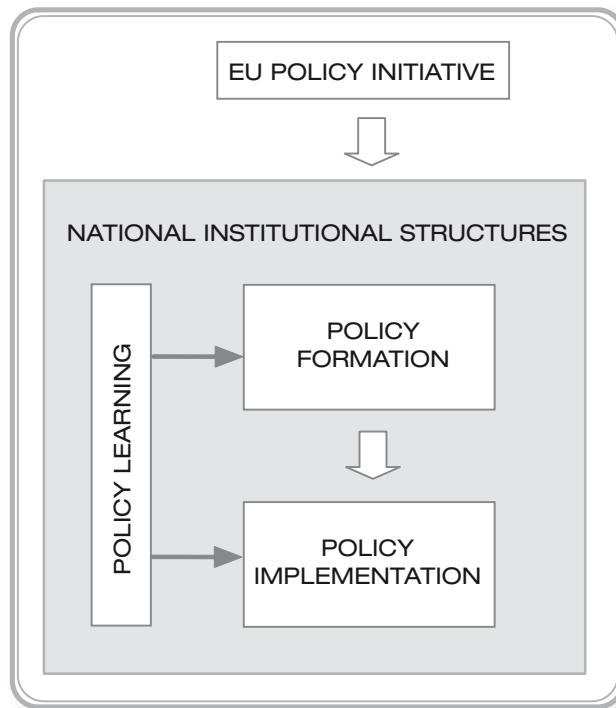


Figure 1. Relationship between EU policy initiatives, national institutional structures, policy processes and policy learning.

prevent further development to occur. Policy learning alone may not offer a sufficient means for improving the policy outcomes, but some institutional changes are required.

This research has given some very interesting insights from the perspective of the domestic impact of the European policy to the member states, but in order to make any conclusions more systematic integration of Europeanization approach needs to be applied. The next research step could be to reflect the results of this research on the literature on the environmental policy integration in the EU. Future work could

include a more systematic review of the formal and informal institutional structures and procedures that imply change followed by an assessment of the degree of compatibility or ‘goodness of fit’ between the domestic structures and the EU requirements. After that, for example by using the categorization provided by Börzel and Risse (2003), the outcome of domestic change in response to European pressures that ranges from transformation to adsorption can be assessed. Another interesting research topic would be the development of new learning mechanisms such as the Open Method of Coordination and other soft law initiatives.

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Appendices

Appendix 1. Documents included in empirical analysis

EU regulations

- 1991. Directive 91/676/EEC Concerning the Protection of Waters against Pollution Caused by Nitrates from Agricultural Sources.
- 1992. Council Regulation No 2078/1992 on the introduction and maintenance of agricultural production methods compatible with the requirements of the protection of the environment and the management of the countryside.
- 1992. Directive 92/43/EEC Concerning the Conservation of Natural Habitats and of Wild Fauna and Flora.
- 1996. Council Regulation No 746/1996 laying down detailed rules for the application of Council Regulation (EEC) No 2078/92 on agricultural production methods compatible with the requirements of the protection of the environment and the maintenance of the countryside.
- 1999. Commission Regulation (EC) No 1750/1999 laying down detailed rules for the application of Council Regulation (EC) No 1257/1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF).
- 1999. Council Regulation No 1257/1999 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repealing certain Regulations.
- 2000. Directive 2000/60/EC Establishing a Framework for Community Action in the Field of Water Policy.

National acts and decrees

- 1994. Laki Euroopan yhteisön yhteisen maatalouspolitiikan täytäntöönpanosta No 1100/1994
- 1994. Laki maa- ja metsätalouden rakennepoliittisista toimenpiteistä No 1303/1994, kumottu säädöksellä No 329/1999
- 1995. Asetus maa- ja metsätalouden rakennepoliittisista toimenpiteistä No 1259/1995, kumottu asetuksella No 646/2000

Decisions of the Council of State

- 1995. Valtioneuvoston päätös maatalouden ympäristötuesta No 760/1995, kumottu säädöksellä 609/2000, 644/2000.
- 1998. Valtionneuvoston päätös maataloudesta peräisin olevien nitraattien vesiin pääsyn rajoittamisesta No 219/1998
- 1998. Valtioneuvoston periaatepäätös vesien suojelun tavoitteista vuoteen 2005 (19.3.1998)

Regulations and decrees of the Ministry of Agriculture and Forestry

- 1995. Maa- ja metsätalousministeriön päätös maatalouden ympäristötuen perustusta 768/95 ja sitä koskevat muutokset 311/96, 55/97, 646/2000
- 1995. Maa- ja metsätalousministeriön päätös maatalouden ympäristötuen erityydestä 92/1995 ja sitä koskevat muutokset 101/95, 44/96, 34/98
- 1995. Maa- ja metsätalousministeriön päätös maatalouden ympäristötukeen liittyvästä neuvonnasta, koulutuksesta ja kokeiluhankkeista 96/1995.
- 1997. Maa- ja metsätalousministeriön päätös maatalouden ympäristötuen erityyden hakemisesta ja hakuaajoista 55/1997

Circulars of the Ministry of Agriculture and Forestry

- 1995–2006. Maa- ja metsätalousministeriön yleiskirjeet maatalouden ympäristötuen perustuesta
- 1995–2006. Maa- ja metsätalousministeriön yleiskirjeet maatalouden ympäristötuen erityistuesta
- 1995 Maa- ja metsätalousministeriön yleiskirje No 79/1995 maatalouden ympäristötukeen liittyvä neuvonta, koulutus ja kehittämishankkeet ja sitä koskevat lisäykset ja muutokset
1998. Maa- ja metsätalousministeriön yleiskirje No 109/1998 tulotukien valvontajärjestelmästä

Committee proposals for Finnish agri-environmental programmes

1992. Ehdotus maaseudun ympäristöohjelmaksi. Työryhmän mietintö. Ympäristöministeriö 68/1992
1994. Ehdotus maatalouden ympäristötukiohjelmaksi 1995–1999. Työryhmämuistio. MMM 19/1994.
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1987. Maatalous 2000. Komiteamietintö 24/1987
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1989. Maatilalainsäädännön uudistamistoimikunnan mietintö. Komiteamietintö 40/1989
1990. Maatalous ja uhanalainen luonto. Ympäristöministeriö Esite 23/1990.
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1999. Maatalouden ympäristötuen hallinto ja valvonta. Tarkastuskertomus 4/99. Valtiontalouden tarkastusvirasto.
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2002. Hyvä hallintotapa maataloushallinnossa. Loppuraportti. Työryhmämuistio MMM 11/2002.
2003. Maatalouden ympäristötuen seurantaröhmän väliraportti. Työryhmämuistio MMM 7/2003
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Other material

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- MMM. Maa- ja metsätalousministeriön toimintakertomukset 1985; 2000; 2004
- MMM. Ympäristötukijärjestelmän valmisteluryhmien kokousmuistiot ja taustamateriaali. 1994, 1998–1999, 2005–2007; työryhmän jäsenen arkisto.
- MMM. Maatalouden ympäristötuen hakuoppaat, erityistukioppaat ja esitteet 1995–2005.
- MTK. Maa- ja metsätaloustuottajain Keskusliiton toimintakertomukset 1993–2003.
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- VN. Valtion talousarvioesitys 2003. Valtionkonttori. (sis. TE-keskusten maaseutuosastojen henkilöstön jakautuminen (htv:t) vuosina 1994–2003).

Regional documents

- Maatalouden ympäristötuen toteutuminen ja vaikutukset ympäristön tilaan Uudenmaan ympäristökeskuksen alueella. UUS, monisteita, Nro 56/1999.
- Peltoalueiden vesiensuojellisten suojavyöhykkeiden yleissuunnitteluopas ja sekä kolme mallisuunnitelmaa, MMM ja YM, moniste, 1999.
- TuusulanjärviProjektin julkaisut, 2001–2004, Keski-Uudenmaan vesiensuojelun kuntayhtymä ja Uudenmaan ympäristökeskus.
- Kestävä maatalous Vantaanjoella -projektin julkaisut, 1998–2002. UUS
- Vantaanjoen maatalouden vesiensuojeluprojekti. Julkaisuja 41/1997.VHVSY
- Uudenmaan kulttuuriympäristöohjelma. Julkaisuja 5/1996. UUS
- Uudenmaan alueellisen ympäristökeskuksen toimintakertomukset
- Uudenmaan TE-keskuksen toimintakertomukset
- Vantaanjoen ja Helsingin seudun vesiensuojeluyhdistys ry:n toimintakertomukset.

Internet sources

- Valtion säädöstietopankki Finlex: www.finlex.fi
- Maa- ja metsätalousministeriö: www.mmm.fi
- Työvoima- ja elinkeinokeskus: www.te-keskus.fi/uusimaa
- Ympäristöministeriö, Suomen ympäristökeskus: www.ymparisto.fi
- Uudenmaan alueellinen ympäristökeskus: www.ymparisto.fi/uus
- Maa- ja metsätaloustuottajain keskusliitto: www.mtk.fi
- ProAgria: www.proagria.fi
- Suomen luonnonsuojeluliitto: www.sll.fi
- Vantaanjoen ja Helsingin seudun vesiensuojeluyhdistys ry: www.vhvsy.fi
- Kuntatiedon keskus: www.kunnat.net
- Kehittyvä maatila hanke: www.tukiviidakko.fi

Seminars

2001. Keskustelutilaisuus Suomeen soveltuvasta maaseudun ympäristösopimus-järjestelmästä. 2.3.2001, Helsinki. Muistio.
2002. Yhteisen maatalouspolitiikan haasteet –seminaari 29.1.2002, Helsinki. Osallistuminen.
2003. Maatalouden ympäristönsuojelun valtakunnalliset neuvottelupäivät 2003, Kuopio. Osallistuminen.
2003. Uudenmaan Maatalouden ympäristönsuojelun neuvottelupäivä 17.3.2003, Mäntsälä. Osallistuminen.
2004. Uudenmaan ympäristökeskuksen ravinnetaseseminaari 25.11.2004, Helsinki.
2005. Ympäristötuen seurantar ryhmän loppuseminaari 17.3.2005, Helsinki. Osallistuminen.

Appendix 2. List of persons interviewed

Policy formation level

The first group consisted of representatives from the following organisations:

Ministry of Agriculture and Forestry
Ministry of the Environment
Regional Environment Centre in Southwest Finland
Central Union of Agricultural Producers and Forest Owners (MTK)
ProAgria Rural Advisory Centres
Finnish Environment Institute (SYKE)

The second group consisted of representatives from the following organisations:

Ministry of Agriculture and Forestry; one person for AE program and one for WFD
Ministry of the Environment; only concerning the WFD
Finnish Association for Nature Conservation (SLL)
Finnish Environment Institute (SYKE); only concerning the WFD
MTT Agrifood Research Finland; 2 persons

Policy implementation level

Representatives from the following organisations were interviewed:

Employment and Economic Development Centre for Uusimaa (T&E Centre);
2 persons
Uusimaa Regional Environment Centre; 2 persons
ProAgria Uusimaa
MTK Uusimaa Local Office; 2 persons
SLL Uusimaa Regional Office
Water Protection Association of Vantaanjoki and Helsinki region
River Vantaanjoki project
Lake Tuusulanjärvi project
Tuusula federation of municipalities
Municipality of Nurmijärvi
Municipality of Järvenpää

Appendix 3. Questionnaire used during the interviews

Profile of interviewee

- i. Name
- ii. Affiliation, employer and duration of employment
- iii. Education

Agriculture and environment

1. What are the main environmental issues concerning agriculture? (before/now)
2. Are there any conflicts? (before/now)
3. What is the importance of environmental issues in agricultural policy? (before/now)

Agri-environmental policy

4. How should the environmental problem caused by agriculture be taken care of?
5. Are the principles and objectives of the agri-environmental programme suitable?
6. Is the structure of the programme suitable?
7. Is the menu of programme measures suitable?
8. How would you change the current system?

Policy subsystem actors

9. Have the actors (individual or organisation) of the field changed due to the EU?
If yes, how did the changes affect discussions or activities?
10. Which are the most and least important actors? What roles are they playing and what do they want to achieve?
11. With whom do you co-operate, and with whom do you not. How and why?
12. Has co-operation between agricultural and environmental sectors developed?
How?

Policy learning

13. Describe which mechanisms you have faced to improve your knowledge and skills on agri-environmental issues. What do you think you have learned?
14. Do you think increasing co-operation and networking is necessary?
15. Do you think others have changed their opinions concerning agri-environmental issues? Have you?

Final questions

16. What kind of agri-environmental policy should we have in the future?
17. Whom do you think I should interview next?
18. Have I forgotten to ask something essential?

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