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POLICY MAKING PERFORMANCE, POLICY CHANGE, AND POLITICAL INSTITUTIONS: THE FORMULATION OF AN ENVIRONMENTAL POLICY FOR THE AGRICULTURAL SECTOR IN FRANCE, THE UNITED STATES AND CANADA

By

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Abstract

This dissertation examines the performance of policy makers in the environmental sector. It is suggested that policy makers perform at a high level when they are capable of making changes in existing policies. Specifically, policy makers must be able to expand the reach of their country's environmental policy to the agricultural sector and increase the intrusiveness as well as the comprehensiveness of policy instruments to prevent the intensification of farming from causing serious damage to the environment. When performing at a high level, however, policy makers should be able to achieve these policy changes without endangering the economic viability of agriculture. The general performance of policy makers was found to be higher than expected. It is argued in this dissertation, however, that France performed at a higher level than the United States which itself performed at a higher level than Canada. Variations in institutional arrangements explain these differences.

In France, the European Union empowered environmental actors pressing for the adoption of intrusive environmental regulations for the agricultural sector. But this pressure was mediated by a corporatist policy network in a manner that minimized the cost of the policy to farmers. In contrast, the pressure for the adoption of stringent environmental regulations in the United States entered a federal arrangement in which state-civil society relations were regulated by pluralist policy networks. This enabled

swift policy changes that conflicted with the interests of farmers in several states. Nevertheless, the American federal setting worked better than that of Canada where the central government failed to adopt a significant environmental policy for the agricultural sector and where environmental standards from one province to the next vary enormously.

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Éric Montpetit

Content

List of Tables and Appendix

Chapter One

Introduction

What do policy makers do when a problem becomes serious? Do they address it by changing their existing policy with regard to that problem? If so, can we say that the policy changes carry a real potential to resolve the problem? Can we say that policy makers are equally able or unable to adopt policies that address the problems they face? If not, what are the factors that makes policy making performance higher in some countries than in others? These are the central questions behind this dissertation.

These questions are derived from an instrumental view of the state whereby public policies, interventionist or non-interventionist, are seen to be solutions to concrete problems. Accordingly, a health care policy is expected to address the health problems of a society; interior policies are expected to address problems of security within a country; a country's cultural policy is expected to speak to cultural problems; an environment policy is supposed to address problems of environmental degradation; and an economic policy's primary function should be to prevent or to remedy problems

related to the prosperity of a country. In short, the objective of this dissertation is to study the problem solving function of the state.

This is not to say that the state *should* primarily be an instrument to improve societies' conditions or that state policies should be first and foremost aimed at solving concrete problems. The state also fulfills symbolic functions whose importance has been demonstrated by several political scientists.[1] I take this instrumental view of the state simply because most people in modern democracies expect the state to *address* problems, in one way or another. Some people may prefer more state intervention in the face of emerging problems, other people may want the state to cease some of its activities when such problems occur, but most people expect the state to do something when problems emerge.

The questions of this dissertation are particularly important because the neo-liberal and globalization discourses, two mutually reinforcing discourses rather popular at the end of this century, have contributed to eroding people's confidence in the state and more generally in policy makers. People are increasingly sceptical about the capacity of policy makers to address problems. We are going through an era of great cynicism toward policy makers, the public sector, and more generally the state.

The Research Design

I begin by explaining the methodological choices that I made to conduct this study in four points. First, I justify focusing on policy change to assess policy making performance. Second, I explain my decision to analyze policies aimed at addressing the

problem of agricultural pollution. Third, I discuss the comparative design of this study. And lastly, I review some additional methodological issues relevant for this dissertation.

Focusing on Policy Change

It did not take me long before I came face to face with the research "traps" that lie behind studies of policy making performance. I will illustrate using an example that, conveniently enough, belongs to the environmental policy sector. Let us assume that specialists have determined that water and soil in a hypothetical watershed show unacceptable levels of contamination. One might say that the problem will be solved when the level of contamination is brought down to an acceptable level. Therefore, a researcher with a purpose similar to mine could simply try to assess the extent to which state policies have contributed to bringing down the level of contamination. Unfortunately, a broader examination of the situation in this case might reveal that contamination levels were not reduced without causing other problems. For example, environmental regulations may have slowed down the economy in this hypothetical watershed. Perhaps industries had been forced to invest in expensive technologies which reduced, in turn, their capacity to employ people. Moreover, reductions in water and soil contamination in the watershed might have contributed to increase air pollution. In short, if one takes a broad view of a situation, it becomes rather difficult to determine objectively what constitutes a solved problem.

Assuming that there are ways to overcome this first obstacle, a second trap may reside in linking the solved problem to public policy. Robert Putnam argues that linking

a policy with actual observable results faces the danger of committing the "Massachusetts Miracle Fallacy."[2] As Putnam explains, despite the rhetoric to the contrary, the economic performance in New England at the end of the 1980s was not caused by state policy. Similarly, possible reductions in contamination levels in the hypothetical watershed just discussed may or may not be attributable to state intervention. Cost effective new technologies that have nothing to do with state intervention could reduce pollution.[3] Lower contamination may also result from plant closures due to a downturn in the business cycle that again may not have much to do with government policy. Conversely, it might not be as obvious as it seems to call policy failure a situation where pollution levels remain high despite policy makers' best efforts. State policies might incite growing industries to reduce *increases* in pollutant discharges, thereby preventing a pollution problem from turning into a health hazard. When state intervention cannot improve a situation, it may nevertheless prevent its worsening, perhaps contributing to avoiding major catastrophes. In several policy sectors, including the environment, it is difficult to assess the exact impact of public policies.

To avoid the Massachusetts Miracle Fallacy, Putnam suggests focusing on policy outputs rather than policy outcomes.[4] Borrowed from systems analysis, policy outputs refer to the inaction or actions taken by policy makers in a sector while policy outcomes refer to the impact of those actions or inactions on the sector. Following Putnam, I will base my analysis of policy making performance on policy outputs. Unlike what one might expect, however, I do not associate high performance with policy convergence

toward a given "one best" approach to address the problem of agricultural pollution. Deciding on what constitutes a problem-solving policy approach is fraught with the same difficulties as those that emerge when deciding on what constitutes a solved problem. For example, regulations limiting industrial discharges would probably constitute a problem solving policy for many people in my hypothetical watershed. In fact, enforced regulations are rather effective and some would say that they are just, because they put the burden of environmental improvement on polluters. For the industries and the workers, however, a better policy could be to subsidize the purchase of new technologies. Theoretically, such an approach avoids putting economic strain on industries and reduces enforcement costs. In short, it is difficult to objectively decide which policy approach is best. Such decisions often involve value judgments in a manner similar to deciding what constitutes a solved problem.

To minimize this subjectivity, I will focus on policy changes, other than convergence toward a given approach, to assess policy making performance. I argue that the nature of the problem of agricultural pollution renders particular types of policy changes more likely to impact positively on the environment, no matter which policy approach is chosen by a country.

First, agricultural pollution should lead policy makers to develop an environmental policy for the agricultural sector. A country faced with the problem of agricultural pollution cannot be said to be performing well, if its policy makers fail to develop an agro-environmental policy. Second, increases in agricultural pollution should

lead to increases in the "intrusiveness" of the agro-environmental policy instruments, independent of the approach to which they belong. Intrusiveness here refers to the degree of change in one or more agricultural practices required by a policy instrument. For example, a regulation that requires farmers to obtain a certification of their waste management plan every year is more intrusive than one which requires farmers to maintain the hedgerows along their fields. Thus, policy makers in a given country will be understood to be performing well if their choice of policies makes the country's agro-environmental policy more intrusive as the level of agricultural pollution increases. Third, the agro-environmental policy of a country with a high level of performance in policy-making should be "comprehensive." Comprehensiveness refers to the range of agricultural practices a policy instrument may cover. An agro-environmental programme that covers livestock as well as crop production is more comprehensive than one only relevant to the practices associated with only one type of production. From an environmental point of view, comprehensiveness is important because it prevents the transfer of pollution from one medium to the next. For example, a comprehensive instrument is less likely to encourage the transfer of pollution from soil to water than a narrow instrument. Fourth, high performance is more likely when policy makers can rely on policy instruments that belong to a mix of approaches. Such a mix provides more opportunities for addressing the complexity of agro-environmental problems than one approach alone. I come back to this point at greater length in Chapter 3.

Table 1.1 lists seven broad policy approaches and associated policy instruments for addressing the problem of agricultural pollution. The first approach is educational: policy makers can choose to educate farmers on the environmental impact of their agricultural practices and inform them about more sustainable practices. This approach is often referred to as moral suasion in the public policy literature. The second approach involves the use of positive incentives. Policy makers design subsidy programmes that pay farmers if they change their farming practices, an idea derived from economic theory.[5] The third approach relies on direct regulations and is often referred to as the command and control approach. The fourth approach, cross compliance, penalizes farmers who do not comply with some environmental standards by cutting off the benefits they are receiving from other, usually more general farm programmes. Fifth, the endogenous approach provides farmers with help in utilizing the environment as an economic asset. For example, such a policy may encourage agricultural producers to use farming practices that allow them to market their products as certified organic products. The sixth and more radical approach sees policy makers lifting their focus beyond actual farming practices to reconsider approaches to farming in a general way. The objective of this approach to policy is to change completely the way farming is carried out so as to remove detrimental side effects on the environment. Finally, the self regulatory approach leaves the management of the problem of agricultural pollution with the farmers themselves and their representative organizations.

Again, my task is not to decide here which of these seven approaches is best. Rather, I argue that solutions to the problem of agricultural pollution become more likely to be effective to the extent that they involve the use of more than one of these approaches. Thus, the performance of policy makers who choose to adopt a programme of "green" subsidies while strengthening the existing set of regulations is higher than that of policy makers who decide to abandon subsidies and to rely exclusively on direct regulations.

Table 1.1: Policy Approaches to Agro-Environmental Problems

Agro-Environmental Policy Approaches	Definitions
Educational	Uses policy instruments that educate farmers about environmental practices.
Positive Incentive/ Subsidy	Uses policy instruments that provide farmers with financial incentives to adopt environmental practices.
Regulatory	Uses policy instruments that impose rules constraining the use of polluting farming practices.
Cross-Compliance	Uses policy instruments that link the benefit of general agricultural programmes to participation in environmental programmes.
Endogenous	Uses policy instruments that promote the environment as an asset that can contribute to improving the economic situation of farmers.
Reformative	Uses policy instruments that seek a redefinition of farming away from the objective of always producing more.
Self-Governance/ Self-Regulation	Explicitly leaves to civil society actors the responsibility to decide on an appropriate course of action to address agricultural pollution.

In short, policy makers will be understood as performing more or less well to the extent that they change policy in three ways. They actually adopt an environmental policy for the agricultural sector, the comprehensiveness and intrusiveness of this policy should increase as pollution increases, and the policy should combine instruments drawn from a variety of different approaches. The central task of this dissertation will be to examine the extent to which policy makers performed well and to explain differences in levels of performance between countries.

Selecting a Problem

I have chosen to study the agro-environmental sector, and more specifically the problem of agricultural pollution, because it is an issue that is likely to require political attention. When it arises, agricultural pollution appears to be a problem sufficiently important to earn the attention of any government, particularly in major agricultural countries like France, the United States, and Canada. As I demonstrate in Chapter 2, research on agricultural pollution has failed to identify one clear policy solution or approach to tackle the problem. There is a great deal of uncertainty as to how policy makers should address agricultural pollution. Nevertheless, a large body of knowledge has been produced on this matter. If it cannot be decided which policy instrument constitutes the best solution, a number of policy alternatives are available to policy makers. As a British official said already a long time ago: "There is virtually no form of environmental pollution that we do not know how to control."[6] In the agro-

environmental sector, a lack of knowledge cannot be an excuse for inaction on the part of policy makers.

The broader agricultural sector is also one where the degree of state intervention is higher than in many other economic sectors. The necessity to administer the policies for the sector has led to the establishment of strong bureaucracies, and benefits arising from these policies have engendered the creation of powerful social and economic networks.[7] These circumstances should, in turn, render any policy change in this sector highly political.

In short, three reasons pushed me to choose studying agricultural pollution. First, it constitutes a low profile problem, that is agricultural pollution is unlikely to be a problem of high salience in the platform of political parties. Under these circumstances no particular political party is more likely to be responsible for policy change than policy makers taken more generally. Second, agricultural pollution is a problem about which a large body of knowledge exists that might be applied to find a solution. Inaction cannot be blamed on a lack of knowledge. Finally the state has long intervened in agriculture, making the sector one likely to draw further policy activity.

Comparing Countries

The comparative design of this study should help identify factors improving or harming policy making performance. I should mention, however, that I am interested in policy making performance in industrial democracies and not in less developed countries

or in those with non-democratic political regimes. For these reasons, I selected three OECD countries: France, the United States, and Canada.

I chose these first of all because they were more likely to face important problems of agricultural pollution. France, the United States and Canada have experienced a substantial decrease in the number of farmers since the end of World War II. Similar to most industrialized democracies, this decline was accompanied by the modernization of farming practices and by increases in farm capital endowment. France, the United States, and Canada have also rather diversified agricultural sectors combining field crops and livestock raising. Certainly, in each of the countries, farming is sufficiently intensive that pollution has been a problem. The intensity of intervention using fertilizers and other chemicals is particularly high in France.

Several neo-institutional analyses have demonstrated that the capacity of policy makers varies depending on the institutional environment in which they work.[8] It was therefore necessary that I choose three countries with different institutional arrangements. France is a unitary country, with a semi-presidential system of government, and now a member of the quasi federal setting of the European Union. The United States is a centralized federation with a presidential system that features a sharp separation of powers. Canada is a decentralized federation with a Westminster type of parliamentary system. These differences have created sharply different settings for the making of agro-environmental policy. My task will be to find whether these settings have influenced policy making performance one way or another.

Methodological Bias

Too often political scientists write from their preferred theoretical perspective and consider competing theories only when their own fails. Andrew Moravcsik provides an interesting example of this in the sub-field of international relations. He argues that empirical support for realist theory of non cooperation is inflated by a lack of consideration for hypotheses derived from liberal theory. According to Moravcsik, "domestic institutions, ideas, and distributional conflicts among domestic economic interests" provide competing explanations for non cooperation overlooked by realists who prefer focusing on security concerns.[9] I have sought to avoid a similar methodological bias by exploring, at the outset of this dissertation, a number of competing approaches to study policy making performance. This will be the central objective of Chapter Two.

Overall, however, this dissertation belongs to what Fritz Scharpf calls an "actor-centered institutionalist approach."[10] That is, behind this dissertation lies the idea that the interactions among actors are structured by the institutions in which they take place. The central difference between this approach and rational choice is that the former does not treat the preferences of the actors at the assumption level. Actors may very well act rationally, but I consider it the researcher's task to understand what those preferences are before considering how the actors might interact strategically. Political scientists have recently begun addressing this task by taking into account the role of ideas in policy making.[11]

It should be underlined that the focus of this study is on agenda setting and policy formulation. In other words, I examine agenda setting and policy formulation processes largely leaving decision making, policy implementation, and policy evaluation for future research. Naturally, I realize that a study of policy making performance cannot be complete without an examination of these latter three phases of the policy making cycle.

The actor centred institutionalist approach commands the use of qualitative analysis over quantitative analysis.[12] To conduct this study, I had to carry out over one hundred interviews with policy making actors in the three countries. Most interviews were one hour long while some of them lasted almost two hours. As I have guaranteed my interviewees that I would not quote them by name, I have limited myself to listing the names of the institutions that I have visited for interviews in Appendix 1.1. Historical works and official documents have also proved to be useful and are often quoted in the three empirical chapters. Of course, I have also relied on excellent secondary sources.

Why Should Agricultural Pollution Lead to Policy Change?

The United States and France are the largest exporters of agricultural commodities in the world and Canada is not very far behind. To attain such rankings for agricultural exports, each of the three countries in the postwar period targeted agriculture for protection and state assistance. The idea was that a developed agricultural sector could contribute to broader economic and even strategic policy goals.[13] In turn, state encouraged increases of production were achieved in the context of a somewhat declining land base in each of the three countries. Intensive agriculture may of course

contribute to soil erosion, but more important is urban sprawl. In Canada, for example, urban sprawl in the Toronto and Montreal regions has occurred at the cost of losing some of the most fertile agricultural land in the country. Less land combined with more production necessarily engenders higher environmental risks.

In fact, in order to remain or become important exporters of agricultural commodities, farmers in France, the United States, and Canada have had to rely increasingly on inputs such as pesticides and chemical fertilizers for crops as well as on specialized feed and genetic technologies for livestock. For example, in Canada in 1960 farmers were on average using 9 kilograms of commercial fertilizer per hectare of arable land, in 1987 the figure was 48 kilograms per hectare. In the US, 39 kilograms of commercial fertilizer per hectare were used by farmers in 1960. In 1987, it was 94 kilograms per hectare. In France it is even worse. In 1960, 102 kilograms of commercial fertilizer per hectare were used, in 1987 it had reached 299 kilograms per hectare.[14] As a result, yields have substantially increased, and especially in France.[15] In 1960 French farmers were harvesting 0.41 metric tonnes of wheat per hectare. In 1996 they harvested 6.5 tonnes per hectare. In the US wheat yields between 1960 and 1996 increased from 0.29 tonnes per hectare to 2.41 tons per hectare. The figures for Canada are comparable with 0.23 tonnes per hectare in 1960 and 2.26 in 1996.[16] Similarly, the number of days to raise livestock has dropped significantly in all three countries with important increases in farmers' spending on feed and supplements.[17]

Statistics suggest that France has more reasons than the United States and Canada to be concerned about agricultural pollution. This is not entirely surprising given that between the 1970s and the 1980s France became the second largest country for the export of agricultural commodities just after the United States, a country which is many times larger in terms of agricultural land. And as the protection provided to the French agriculture by the European Common Agricultural Policy is being eroded by international trade agreements,[18] competitive pressure appears to lead to greater farm concentration in the crop and livestock sectors.[19]

To be sure, agriculture was identified as an important source of pollution as early as the 1970s in the three countries. In France, a task force was mandated in the 1970s to study the problem of nitrate in water. The process led to the Hénin Report of 1980 which identifies a number of agricultural practices as contributing to the nitrate problem. In 1972, the United States and Canada began to sign agreements on water pollution in the Great Lakes. In these agreements agriculture was already associated with water pollution.

Using various techniques, governmental agencies have more recently quantified the impact of farming on water quality. Recent EPA figures show that agriculture in the United States contributes to the degradation of 60 percent of the country's rivers and streams that were surveyed.[20] The Institut français de l'environnement showed that 38 percent of the drinking water in France is threatened by agricultural pollution.[21] An

Agriculture Canada survey showed that 40 percent of the wells in rural Ontario are polluted above the provincial norm.[22]

Increased agricultural productivity has also caused air pollution problems. Of course, more fossil fuel is needed to run today's modern agricultural machinery. Recent studies even show that gas emissions from livestock and their manure contribute to global warming.[23] In recent years odours from livestock production have disturbed enough voters to attract the attention of politicians.[24] In France, the United States, and Canada, rural residents discomforted by strong odours and dust have resorted to public demonstrations to express their concerns about the intensification of agricultural production.[25]

In addition to the general effects of agriculture on the environment, a number of events associated with agricultural pollution have captured media attention in the three countries. Some cases of bacterial contamination of drinking water were notably serious. The largest accident occurred in Milwaukee, Wisconsin where about 100 people are believed to have died and 403 000 others were sick in 1993 after drinking water contaminated with a parasite called cryptospordium, which orginated, it has been argued, from agricultural runoffs.[26] Cases of illness due to bacteria likely to appear on farms were also reported in Canada.[27] In 1996 the municipality of Collingwood in Ontario was forced to invest a significant amount of money in a new filtration system after the town's supply of drinking water was contaminated with a bacterium, again believed to have originated from agricultural waste. In the spring of 1997, the city of Rennes in France

stopped providing elementary school students with tap water for fear of contamination, notably by atrazine a pesticide used by corn growers.[28] After reporting problems of nitrate and bacterial contamination of water in France, the OECD has issued a recommendation for the country regarding agricultural pollution.[29] In Maryland and North Carolina, a microbe called pfiesteria has killed thousands of fish in the past few years and might be associated with human health effects.[30] There is growing evidence that the outbreak was triggered by livestock manure runoffs. One could also mention the broadly publicized lagoon spills in North Carolina in the summer of 1995.[31] According to some accounts, the environmental impact of those spills compares in severity to the Exxon Valdez oil spill which occurred off the coast of Alaska in 1989. In short, agricultural pollution has become a problem that policy makers in France, the United States, and Canada should find very difficult to ignore.

Under the conditions just described, it is natural to expect policy makers in France of course, but also in the United States and Canada to formulate some policy changes to address the problem of agricultural pollution, no matter what their party affiliation might be. My task will be to assess the extent to which policy makers are capable of formulating changes that are in line with those that I have associated with high policy making performance.

Do Policy Makers Perform Well?

The general answer this dissertation provides to this question is yes. In contrast to what popular views of policy makers suggest, all three countries have put in place

agro-environmental policies that meet our criteria of high performance. Policy makers in all three countries have adopted an environmental policy for the agricultural sector and these policies were made more comprehensive as agricultural pollution increased. Beyond this general performance, however, differences were found between France, the United States, and Canada. Policy makers in France, I argue, achieved a higher level of performance than those in the United States who themselves did better than Canadian policy makers. The French agro-environmental policy clearly moved in the direction of more intrusiveness and borrowed instruments from a number of approaches. In the United States there was not such an obvious movement toward intrusiveness, although, when taken as a whole, the country has adopted a more interesting mix of policy instruments than Canada.

I argue that institutions explain these differences in performance. No particular type of institution, however, can be associated with high or low policy making performance. Corporatism clearly facilitated the high performance of France, but it was also associated with the low performance of Ontario. Federalism provided a setting favouring a moderately good performance in the United States, but a lower performance in Canada. In short, this dissertation demonstrates that it is difficult to establish a clear cause and effect relationship between institutions and policy performance, because on the one hand similar institutional settings tend to feature particular characteristics and on the other hand they interact in varying ways with other factors, most notably the power attributes and capacities of the actors involved in policy making.

Somewhat surprisingly, then, this dissertation demonstrates that the general performance of policy makers has been relatively high. It does not demonstrate, therefore any urgent need to reform state institutions in order to improve policy making performance. The dissertation, does however, identify some directions such reforms might take if policy makers were to deem them necessary. Certainly, it provides evidence that suggests corporatist arrangements do not have as negative an impact on policy performance as many might suggest.

Plan of the Dissertation

I have divided this dissertation into three sections. The first section contains two theoretical chapters. Chapter Two reviews the literature on policy making performance, discusses some of its conclusions, and introduces a justification for the conceptual approach presented in Chapter Three. Here I revisit the idea that some policy changes are more likely to lead to environmental improvements; I discuss a number of obstacles faced by policy makers in the formulation of these changes; and I present a number of institutional variables that may facilitate the formulation of policy changes consistent with higher performance in the agro-environmental sector.

The second section is comprised of the empirical chapters. I begin with France where the formulation of profound policy changes in the early 1990s arose out of the pressure exercised by the European Union for the adoption of intrusive regulations. The presence of a corporatist arrangement in the agricultural sector, however, mediated this pressure allowing policy makers to rely also on instruments that belong to other, different

approaches. The next chapter underlines the decentralized nature of policy change in the United States. Because of the strength of the United States Department of Agriculture, the federal government has shied away from adopting an intrusive policy which relies on instruments that belong to approaches other than the economic approach. The strength of the federal department, however, created institutional conditions particularly conducive to the adoption of intrusive regulations at the state level but excluded the adoption of instruments drawn from other approaches. The third empirical chapter on Canada constitutes a test of the robustness of the findings of the two previous chapters and confirms that institutions matter. The chapter focuses on two provinces, Ontario and Québec, which changed their policies in sharply divergent ways, even though their agriculture and geography are more similar than those of France and the United States. Clearly, only institutions can explain the difference between the two provinces' performances.

The concluding chapter of the dissertation examines policy making performance from a comparative perspective. I demonstrate that the level of policy-making performance is higher in France than in the US. Similarly, US institutions and policy makers perform at a higher level than their counterparts in Canada. I review the institutional factors that might explain these differences and show that higher levels of policy making performance do not result directly from any particular type of setting. Both corporatism and federalism can facilitate higher performance under some conditions, but inhibit it under other conditions. I conclude the dissertation by

underlining the surprisingly high levels of performance found in all three countries in the 1990s.

Appendix 1.1: List of Organisations Visited for Interviews

France

-Ministère de l'Aménagement du Territoire et de l'Environnement
-Ministère de l'Agriculture et de la Pêche
-Secrétariat Général du Comité Interministériel pour les Questions de Coopération Économique Européenne (SGCI)
-Comité de Réduction de la Pollution par les Nitrates (CORPEN)
-Confédération Française de la Coopération Agricole (CFCA)
-Chambre Régionale d'Agriculture de Bretagne
-Institut National de Recherches Agronomiques (INRA)

United States

-United States Department of Agriculture (USDA)
-United States Environmental Protection Agency (EPA)
-National Pork Producers Council (NPPC)
-North Carolina Department of Agriculture
-North Carolina Department of the Environment, Health, and Natural Resources
-North Carolina Pork Producers Council
-School of the Environment, Duke University

Canada

-Ontario Ministry of the Environment
-Ontario Ministry of Agriculture, Food and Rural Affairs
-Ontario Federation of Agriculture (OFA)
-Christian Farmers Federation of Ontario (CFFO)
-Ontario Farm Animal Council
-Ontario Pork
-Ontario Corn Producers Association
-Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec
-Ministère de l'Environnement et de la Faune (Québec)
-Union des Producteurs Agricoles (UPA)
-Environment Canada
-Agriculture and Agri-Food Canada
-Pest Management Regulatory Agency (PMRA)

Not included in this list are organisations from which officials gave me telephone interviews.

End Notes

1. See Clifford Geertz, *Negara: The Theatre State in Nineteenth-Century Bali* (Princeton: Princeton University Press, 1980).

2. Robert D. Putnam, *Making Democracy Work: Civic Traditions in Modern Italy* (Princeton: Princeton University Press, 1993), 66.

3. The success in controlling soil erosion in several countries might in fact be less the result of government programmes, than the development of cost effective no-till technologies.

4. Putnam, *Making Democracy Work*, 65-66.

5. The economic approach would also include instruments such as green taxes. I did not find any of these instruments in the agro-environmental sector.

6. Lord Kennet in 1969 quoted in Arnold J. Heidenheimer, Hugh Heclo, and Carolyn Teich Adams, *Comparative Public Policy: The Politics of Social Choice in America, Europe, and Japan. Third Edition*, (New York: St. Martin's Press, 1990), 330.

7. See John Mark Hansen, *Gaining Access: Congress and the Farm Lobby, 1919-1981*, (Chicago: The University of Chicago Press, 1991).

8. See Kathleen Thelen and Sven Steinmo, "Historical Institutionalism in Comparative Politics," in Sven Steinmo et al., (eds), *Structuring Politics: Historical Institutionalism in Comparative Analysis*, (New York: Cambridge University Press, 1992).

9. Andrew Moravcsik, "Taking Preferences Seriously: A Liberal Theory of International Politics," *International Organization*, 51: 4 (1997), 538.

10. Fritz W. Scharpf, *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*, (Boulder: Westview Press, 1997).

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Chapter Two

Policy Making Performance: Review of Approaches

The objective of this chapter is to review a number of approaches that have been used by policy analysts to survey the question of the capacity of policy makers to address problems. This review is useful for three reasons. First, it provides information on alternative approaches to study the central question of this dissertation. Second, it exposes the reader to the answers researchers have already provided to the central question of this dissertation. And third, a discussion of the limitations of each of the approaches presented in this chapter serves to justify the use of an approach organised around the idea that performance in the agro-environmental sector requires policy change but not necessarily policy convergence. I present this latter approach in the next chapter.

I have divided this chapter into two main sections. In the first section, I discuss what I call the objective and solution oriented approaches to the study of the capacity of

policy makers to address problems. In the second section, I examine two alternative approaches: collective action dilemmas and the regulations school.

The Objective and Solution Oriented Approaches

As Putnam points out, "appraisals of institutional performance are rare."[1] Few political scientists have ventured into exploring the normative question of how well governments perform their job. In this section, I discuss the manner with which those who have sought to study this question have proceeded.

Governmental performance assessments are likely to vary from one sector to the next. Although, generally, it might be said that governments perform well when they meet as many of their sectoral objectives as possible. But sectoral objectives are not always easy to identify and may substantially vary between governments.[2] Nevertheless, some sectors lend themselves quite naturally to using objectives in order to assess policy making performance. The economic sector is a good example. Authors can safely claim that performing countries in this sector are those which can combine a low level of unemployment and a low level of inflation.[3] Taxation is another sector where objectives can safely be used to assess performance. As Steinmo argues, the objective of tax systems is rather straightforward: generating revenues. In addition, revenue generation, just like inflation and unemployment, is easy to measure and compare. The available data allow Steinmo to conclude that Sweden's system is more efficient than that of Britain, itself more efficient than the American tax system.[4] I call this approach to the

study of performance, where policy outcomes are matched to policy objectives, the *objective oriented* approach.

In the environmental sector, objectives also appear very clear or uncontroversial. Environmental policies are generally aimed at protecting the quality of the environment, although some subtle variations might exist in the degree to which policy makers are committed to this objective. But as explained in the introduction of the dissertation, the problem lies elsewhere. Within each country, there are so many factors that affect the quality of the environment that it is nearly impossible to establish a linkage between environmental improvement or degradation and public policy. As Vogel points out, the single most important factor influencing environmental quality is more likely to be the rate of economic growth than environmental policy.[5] In the environmental sector, the risk of false conclusions is high.

What is more, environmental data are hardly comparable from one country to the next, and even from one sub-national government to the next. Collecting data on environmental quality is a complex process. Sampling is not as straightforward as in the conduct of other kinds of surveys. For example, assessing water quality involves decisions on the rivers to sample, on the sites of sampling for each river, and on the frequency of sampling. Given the uniqueness of each country's geography, it is not surprising to find important variations in the sampling methods. Decisions also have to be made on substances to test among a wide range of potential water contaminants. This range of possible tests encourages further variations among countries in the methods to

assess water quality.[6] Deprived of comparable environmental data, it is extremely difficult to verify the extent to which countries do a good job at protecting the environment.

Studies of performance in the environmental sector have thus focused on the policy process, asking whether it yields plausible solutions to problems. Here, countries with high problem-solving capacity are those able to adopt policy instruments that are *assumed* to be the best. For example, in a study of the Great Lake Basin, Rabe and Zimmerman consider that governments able to adopt "integrated regulations" perform better than those which rely on "fragmented regulations." They assume that environmental regulations which encompass the three main media, air, water, and soil, are more likely to result in environmental improvements than regulations associated with only one of these media.[7] I refer to this approach to studying policy making performance, identifying plausible solutions from policy outcomes, as a *solution oriented* approach.

The difficulty that arises, however, is how does one come to decide that an environmental policy instrument will provide a plausible solution to the problem? Agreeing that a solution is plausible would seem to require an expert consensus on how problems are to be addressed. In the environmental sector, it has become common to rely on the knowledge produced by epistemic communities. Epistemic communities are networks of individuals whose common values engage them in the generation of specialized knowledge through a shared scientific paradigm.[8] Detached from any direct

economic interest and rooted in academic disciplines, these epistemic communities can enjoy an important credibility in the production of policy advice in complex and technical policy sectors. The ecological epistemic community has figured predominantly in the study of environmental policy.[9] Rabe and Zimmerman, notably, associate the emergence of integrated regulatory systems with this epistemic community.[10]

More recently, an epistemic community of economists interested in the production of policy advice for the environmental sector has emerged. Differences in values and in the method through which knowledge is produced have led to the generation of environmental policy advice that sharply contrasts with those of ecologists. Economists' efforts are centred on demonstrating the superiority of market instruments over command and control instruments.[11]

The presence of more than one epistemic community in a complex sector, however, poses a problem for the study of policy making performance. When there is competition among communities of experts, it makes it difficult to assess whether a given policy is a plausible solution to a problem. If this assessment cannot be made, then it is difficult to evaluate problem-solving capacity. In the environmental sector, the identification of the best solutions to environmental policy problems was unproblematic when the only credible epistemic community was the ecological community. In his study of Mediterranean pollution control between 1972 and the early 1980s, Haas found "a publicly recognized group [the ecological community] with an unchallenged claim to understanding the technical nature of the (...) substantive issue-area (...) able to interpret

for traditional decision makers facts or events in new ways."[12] But with the emergence of economists as "challengers" to ecologists in the environmental sector, we can no longer be certain about the best solutions. How do Rabe and Zimmerman know for certain that integrated regulations are better than market instruments?

Solution oriented studies of agro-environmental policy performance also face this problem. Somewhat parallelling the epistemic communities just discussed, at least three distinctive epistemic communities possess an expertise that overlaps between the environmental and the agricultural sectors: the agricultural ecology community, the agricultural systems community, and the alternative agriculture community.

The agricultural ecology community is the branch of the ecology community concerned with agricultural pollution. The ecological community emerged following WWII and is composed of scientists from a variety of disciplines including biology, chemistry, geology, health science, engineering, etc. Beyond a concern for environmental protection, this community is bound together by a common paradigm placing pollution at the end of cause-and-effect relationships and a belief "that all governments should actively cooperate and intervene domestically to protect the environment, including the universal adoption of more comprehensive, rational forms of economic planning."[13] Because the ecological epistemic community shares the belief that policy makers should subordinate economic objectives to the attainment of environmental objectives, it has not hesitated in proposing the adoption of severe regulations on various industries, including agriculture.[14] It is important to note that

several members of this epistemic community were recruited by environment ministries in the 1970s.[15]

Just like an epistemic community of economists has emerged to challenge the ecological community in the environmental sector, a community of agricultural systems analysts raises doubts on the views of agricultural ecologists for the agro-environmental sector. The community of agricultural systems analysts is also an interdisciplinary community engaging a number of agricultural sciences including agricultural economics. This epistemic community is held together by a scientific paradigm that views agriculture as a *system* that transforms inputs into outputs.[16] Agricultural systems analysts are further unified in the belief that the primary function of these systems, the production of food, constitutes a vital function.[17] As a result, the members of this epistemic community subordinate all objectives, including environmental protection, to the efficacy of agricultural systems in producing food. Therefore, unlike agricultural ecologists, agricultural system analysts tend to shy away from producing agro-environmental policy advice that significantly constrains agricultural production.

That is not to say that environmental protection does not constitute an important concern for agricultural system analysts. In fact, they have increasingly paid attention to the problems of agricultural pollution as they have grown concerned about the impact of resource depletion on agricultural production.[18] As an analyst of agricultural systems puts it,

> "The technology selected for agricultural production, characterized by levels of inputs and cultivation practices, not only determines agricultural output, but also affects the quality of the soil and water. For example, some soil erosion and changes in soil chemistry are usually associated with the production of a crop. The future productivity of soil is thus affected."[19]

Here, it may be important to distinguish between the policy advice emerging out of agricultural sciences and those produced by agricultural economists. Agricultural scientists tend to stress the importance of generating knowledge on sustainable farm practices and diffusing the information to farmers. Informed farmers should naturally favour practices that prevent the depletion of the resources upon which they depend.[20] Agricultural economists, however, argue that under certain conditions informed farmers should fail to adopt sustainable practices. They should fail to do so under conditions of imperfect competition, that is when prices do not reflect the value of adopting new technologies and practices. [21] Farmers should also limit the adoption of new practices to areas where they individually have to bear the full cost of pollution or where market failures exist.[22] These conditions may warrant stronger government intervention than what agricultural scientists suggest.

In producing advice for these interventions, agricultural economists have stressed the importance of the diffused or non point source nature of agricultural pollution.[23] Given the number and the geographical spread of farms, it is very difficult to trace the

exact origin of agricultural pollution, a situation that renders the use of traditional command and control environmental regulations problematic: the monitoring and enforcement costs in the agricultural sector are too high to justify this type of policy instruments. Agricultural economists have thus prescribed the use of economic instruments including subsidies, taxes, or tradable permits.

The political consequences of the differences in the policy advice between agricultural scientists and agricultural economists, however, should not be exaggerated. As Haas argues, epistemic communities are conducive to developing policies that are satisfying to all members without direct confrontations.[24] The agricultural system community advice is presented to policy makers as a unified set of proposals that challenge those of the ecological epistemic community. What is more, the policy advice of agricultural system analysts has attracted serious attention in recent years as this advice is often promoted by powerful ministries of agriculture.

Lastly, the ecological community and the agricultural systems community have been both recently challenged by the more marginal community of proponents of alternative agriculture. Proponents of alternative agriculture view farming as a *way of life* in harmony with nature and rural communities. In contrast to agricultural systems analysts, they believe that agriculture fulfils ecological and social functions in addition to food production. They criticize the modernisation of the sector for having created an imbalance between these three functions in favour of the latter.[25] The alternative agriculture community proposes nothing less than a reform of modern agricultural

practices. Members of this community, who are largely concentrated in Europe, are often farmers themselves but also scientists interested in the impact of farming practices on the environment and society. Unlike the two previous communities which are structured around academic forums, the alternative agriculture community is structured around groups such as the French Centre d'étude pour un développement agricole plus autonome (CEDAPA). Again, this epistemic community, while more popular in Europe than in North America, remains a marginal one.

Nevertheless, the presence of competing epistemic communities in the agro-environmental sector prevents our use of the solution oriented approach to study policy making performance. When unchallenged, an epistemic community reduces the uncertainty regarding a solution to a problem within a complex sector. Under such circumstances, the use of the solution oriented approach is unproblematic; countries perform when they converge toward that solution. Once the epistemic community is challenged, however, the uncertainty resumes. Outsiders to the epistemic communities cannot be certain about one best solution, hence the impossibility to claim that the divergent solutions adopted by countries are indicative of low problem-solving performance. The above discussion should demonstrate that in recent years, the agro-environmental sector has been afflicted with uncertainty. Therefore, the use of the solution oriented approach for this sector is not a useful one for this study.

Beyond the problematic circumstances of the agro-environmental sector, further limitations with the solution oriented approach can be underlined. The solution oriented

approach, at least in the environmental sector, is based on the normative view that policy making should as much as possible be guided by science. Scientific truths, however, tend to change suddenly and unexpectedly, as Kuhn's analysis of science suggests.[26] Furthermore, policy studies show that differences exist between policy makers in varying national settings in their predisposition to rely on science in policy formulation.[27] In some countries, policy makers use science as a means to legitimize political decisions. In these instances, policy makers normally identify an agreeable expert community and rely solely on that community for policy advice. Their ability to follow such a route, however, rests in part on institutional factors. Where the policy process is more adversarial and less dominated by strong state actors, various political interests are tempted to hire their own community of experts to legitimize their policy positions. Competing epistemic communities are naturally more likely to be active in these latter settings and thus science is unlikely to emerge as a clear guide to policy making.[28] These problems facing the use of science in policy making should be convincing enough to seek an alternative to the solution oriented approach to study policy making performance.

Alternative Approaches

The solution and objective oriented approaches are direct attempts at assessing the capacity of policy makers to address problems. Political science, however, offers a rich range of other approaches which, if not primarily geared toward assessing performance, may nonetheless be insightful for understanding when problem-solving

capacity is high. In this section, I propose taking a brief look at two such approaches: the study of collective action dilemmas and that of modes of regulation.

Collective Action Dilemmas

What I propose for this sub-section is to examine briefly the work of Elinor Ostrom. The work of Ostrom is interesting because, unlike more traditional political science approaches, it follows a bottom-up approach. The rationale of bottom-up studies rests on the idea that policies decided upon by policy makers do not matter if they are not implemented. Ostrom prefers to study policy problems from the field up to higher levels, if necessary.[29] Her approach is further distinguished from the solution based approach in that it avoids identifying, *a priori*, the "appropriate" policy instruments to address problems. A successful policy is simply one that allows individuals to cooperate for the purpose of resolving problems. In other words, Ostrom adheres to the view that policy making is first and foremost an exercise in collective action.

Her work begins with rational choice theories, most notably Garrett Hardin's tragedy of the commons, which often predict failures in the resolution of collective action dilemmas. Ostrom argues that such Pareto inferior outcomes, which in the Hobbesian tradition may justify involving the state as an external enforcer, are often avoided in reality.[30] Her research attempts to understand the conditions under which cooperation occurs in situations of collective action dilemmas.

More specifically, Ostrom's work has focused on the protection of common pool resources, i.e., resources from which subtraction is possible but exclusion difficult.[31] A

common well of water provides a good example of a common pool resource. One person's use of water diminishes potential uses by others and it may be difficult to prevent someone from using this resource. From a rational choice theory perspective, self-seeking individuals should use as much water as rapidly as possible, actions that then may lead to the destruction of the resource. Again, observations often contradict such doomsday scenarios because, Ostrom argues, they overlook "the capability of humans to agree upon rules that structure their own games."[32]

Agricultural pollution can be studied as a problem of common pool resource protection. The water and the air within a given watershed, partially but not exclusively polluted by agriculture, are common pool resources.[33] From this angle, the problem is to get the various air and water users to cooperate on the management of these resources. In the language of Ostrom, the agricultural and other uses of water and air create problems of appropriation externalities, i.e., the productive use of these media reduces their yield for other uses. In turn, the appropriation of air and water can cause provision problems, whereby the resources become sufficiently depleted that their productive capacity is altered.[34] For example, if farmers in a given watershed use water courses for the discharging of waste, other industries that rely on clean water will see their productive capacity diminished. Even farmers who happen to be located down stream from other farmers will experience lower productivity as they need high quality drinking water for their livestock. The same goes with agricultural odours that can affect, say the tourist industry.

Therefore, users of water in watersheds and users of air in agricultural areas should be interested in establishing rules of cooperation to avoid the overuse of their common resources. Ostrom and her colleagues predict that in complex situations users of common pool resources will cooperate if they have opportunities and incentives for communicating. And rural communities are rather conducive to providing such communication opportunities, as well as incentives,[35] at watershed or agricultural area levels. In turn, cooperation results because trust builds as a consequence of the reciprocity to which humans are often inclined.[36] Moreover, the willingness of appropriators to use moderate sanctions against defectors tends to increase cooperation.[37] Naturally, there are several obstacles keeping cooperation from reaching optimal levels. For the case in which I am interested, asymmetry between farmers and other users of the common pool resources in the countryside appears to be such an obstacle. Nevertheless, pollution in watersheds and agricultural areas remains a good candidate for the type of cooperation predicted by Ostrom.

Ostrom's analysis has implications for governmental intervention. She argues that "national governments are too small to govern the global commons and too big to handle smaller scale problems," presumably such as agricultural pollution.[38] Furthermore, even if cooperation may mean sub-optimal outcomes in protecting common pool resources, Ostrom and her colleagues argue that

> "The prescription that external authorities must impose change leads to attempts to impose uniform national or regional laws. In any country

> where the attributes of the physical world vary substantially across locations, the same set of rules that engender positive outcomes in one physical location can engender negative outcomes in other locations. The imposition of uniform rules can lead to dramatic differences in outcomes or to extreme discretion on the part of officials who adjust the uniform rules to fit local circumstances. Such discretion opens the door to corruption."[39]

She contends, however, that governmental services such as the provision of information can enhance cooperation. Nevertheless, her analysis suggests that the scale of most governmental intervention is inappropriate to address problems of agricultural pollution which would affect each watershed in a specific manner. In other words, government policy does not matter much in resolving agricultural pollution problems and might even harm the process of cooperation at the watershed or agricultural area level. Ostrom's work thus suggests that government policy makers are endowed with a low capacity to address the problem of agricultural pollution.

The approach of Ostrom requires making methodological decisions that limit the scope of the analysis. Again, she suggests starting from the field up in studying public policy. Beginning at the field level requires a concentration of the research on selected narrow geographical areas of countries. In the case of this study, for time and cost reasons, I would have had to focus on one, at most two, watersheds in each of the countries that I propose studying. While this would permit a close examination of the

question of policy implementation in those watersheds, it would allow me to derive at best only a few policy formulation implications relevant to higher levels of government. It is not because a national policy, for example, is ill implemented or ill adjusted in one or two watersheds that it is ill implemented or ill adjusted countrywide. While the question of policy implementation is important, I decided to orient this dissertation more on the processes of agenda setting and policy formulation.

This leads me to what I perceive as a shortcoming of this alternative approach to study the capacity of policy makers, namely the neglect of government policy. One has to be sensitive to the concern of Ostrom for problems of scale, but there are striking commonalities from one watershed to the next in the problems of agricultural pollution. It remains an unresolved issue whether government policies are most of the time disconnected from local circumstances. Recent reforms of the public sector have, after all, attempted to make government bureaucracies more responsive to the variety of needs encountered in society.[40] In any case, Ostrom's approach faces serious limitations in verifying these assertions. By centring policy analysis on a narrow geographical area, one misses the possible commonalities with other geographical areas and risks failing to see a government policy that has an important impact elsewhere. In any case, the focus of this study on agenda setting and policy formulation renders inappropriate the use of Ostrom's bottom up approach.

The Regulation School

The regulation school, more than Ostrom's approach, requires the attention of the researcher on policies present at several levels. Students of the regulation school centre their analysis on the complexity of the task of addressing policy problems. Unlike the traditional approach discussed above, the regulation school emphasizes the difficulty of arriving at policy solutions within the context of complex accumulation regimes.

The regulation school centres its attention around the concepts of "accumulation regime," whereby production is organised, and of "mode of regulation" whose function is to normalise relations of production. The central objective of the regulation school is to provide an understanding of the relative persistence of "accumulation regimes" in the face of important contradictions. This endeavour necessitates the study of "modes of regulation." Much of the work within the regulation school tradition is functionalist, presenting the modes of regulation as necessarily functional to accumulation regimes.

The regulationist view of capitalism is nevertheless dynamic. If modes of regulation contribute to sustaining regimes of accumulation, they can still collapse under structural crises arising out of mounting contradictions.[41] In fact, regulationists debate whether the fordist regime of accumulation, which characterized the post war period, was replaced in recent years by a neo-liberal regime. There is growing agreement, however, that the crisis of fordism has come to an end and that the world is entering into a new era of stability, thanks to an emerging mode of regulation.

There have been numerous discussions of this change among students of agriculture.[42] Friedmann, for example, explains that the fordist regime in agriculture was notably characterized by tropical sourcing and a specific livestock/feed complex. The regulation of this fordist regime was assured by a certain level of state intervention and somewhat hidden international agreements. International stability was thus the result of a "set of circumstances favoring complementarity among nationally regulated economies."[43] It is in the 1970s that the contradictions of this regime escalated into an important crisis for agriculture which forced a redefinition of the regime of accumulation. The post-fordist regime, Friedmann argues, which emerged from the crisis of the 1970s is characterized by rapid changes in the pattern of international transactions made possible by the development of substitutes for a number of food products and improvements in conservation technologies. Under such conditions, regulation at the national level is no longer possible and has to be replaced by international regulation.[44]

In light of this argument, Vail and his colleagues have conducted a study of the "greening" of agricultural policy in Sweden. They argue that the economic aspects of the agricultural crises of the 1970s have interacted with environmental contradictions, thus giving rise to "green" demands.[45] In a detailed analysis, however, they demonstrate that there is a contradiction between the new regime of accumulation and national responses to those demands. Under the new regime of accumulation there is room only for the "fittest,"[46] a situation which naturally encourages farm enlargement and concentration,

thus environmental degradation. Under those circumstances, policy responses to the green demands tend to be "hasty and piecemeal, introduced without thorough review of the alternatives, probable outcomes or inconsistencies with other policies."[47] Vail and his colleagues add that agro-environmental policies which are not voluntaristic are poorly implemented. They also point to the impatience of policy makers in preferring technological as opposed to political solutions to problems of agricultural pollution: "There is a widespread faith that biotechnology holds the magic bullet promise of bringing economically efficient solutions to a wide range of agroenvironmental problems, especially chemical pollutants and human health hazards."[48] In other words, Vail and his colleagues also affirm that state intervention is difficult in this era of neo-liberalism.

For his part, Buttel sees the rise of a global sustainable development movement as an important feature of the emergent mode of regulation.[49] The sustainable agriculture rhetoric appears well suited to integrate a mode of regulation destined to sustain the new global regime of accumulation. For the rhetoric is one that can keep pace with the rapid changes in transaction patterns and which resonates with the imperatives of technological development. The idea that a contradiction between this regime of accumulation and green demands might exist, however, forces Buttel to point to the danger of co-optation of proponents of sustainable agriculture by neo-liberal forces.[50]

In contrast to Buttel's suggestion that state intervention is being replaced by an international discourse on sustainable development, Allaire points to the local responses

that followed the fall of the fordist regime.[51] As those local responses grew in opposition to the regulation exercised by traditional agricultural policy, they integrated a market logic. In addition, they mark a return to local knowledge, again in opposition to the state promoted technological paradigm. Here Allaire's analysis is particularly relevant to a study of agro-environmentalism. He argues that the regulation exercised through the local knowledge of agriculture emphasizes "the quality of products, the management of human resources, and the valorization of the land."[52] In other words, Allaire is much less pessimistic about the environmental consequences of the new regime of accumulation.

Despite some differences, all regulationists appear to agree that state intervention to deal with agricultural pollution is problematic in today's post fordist regime of accumulation. Moreover, if they diverge on the likely legitimizing rhetoric or results, whether sustainable agriculture or a return to local knowledge, they nevertheless concur that the post fordist regime of accumulation depends on the self-regulatory capacity of the market. For example, sustainable agriculture should be the natural result of markets stimulating innovations such as the development of biotechnologies, thereby reducing the need to use chemicals or helping livestock better digest nutrients. Similarly, the sophistication of consumers' tastes should encourage the development of "green" products or the use of ancestral small scale, thus less polluting, production processes. The results and the supporting rhetoric on the self-regulating capacity of markets should help in stabilizing the emerging regime of accumulation for agriculture.

What are the implications of the new mode of regulation for the capacity of policy makers to address the problem of agricultural pollution? Given the faith in the market, regulationists would not expect policy makers to have to use instruments that are comprehensive or intrusive. Nor might we see the positive incentives favoured by agricultural economists since the regulationists seem less troubled with market failures. Rather, regulationists' theory seems to fit best with a situation where states embrace the self-regulatory approach on the ground that economic actors are better positioned than the state to find innovative solutions to emerging problems.

As the above discussion shows, students of the regulation school have paid a lot of attention to the agro-environmental sector, which might have been an incentive to construct this study around this approach. But some of its shortcomings pushed me to prefer the approach that I present in the next chapter. First, it is difficult to apply the concept of regime of accumulation in a constructive way for agriculture. Goodman argues that students of agriculture who have used the analytical tools of the regulation school have too often neglected the particularities of the sector. The result is a poor understanding of the current regime of accumulation that characterizes agriculture and far too simplistic conclusions on the role of the state.[53]

To be fair to regulationists, there is little doubt that the rhetoric of sustainable development or the return to local knowledge (which incidently appears more important in France) play important roles in regulating the current regime of accumulation in agriculture, whatever it may be. Nonetheless, my research also indicates that states are

far more active in this area than regulationists would expect and their theories provide little assistance in understanding why states are so prominent in this field.

Assuming state policies play a role in a mode of regulation, it appears important to understand how these policies reach the agenda, are formulated, and implemented. So far, regulationists have done a poor job at providing an understanding of the linkages that might exist between the actors of the regime of accumulation and the policy-makers. Such an understanding is important because weak or inefficient linkages can explain the insufficiency of a mode of regulation in sustaining a regime of accumulation faced with important contradictions. The approach that I present in the next chapter can contribute to a better understanding of how policies are decided and the impact of this process on their effectiveness.

In addition, descriptions of agricultural regimes of accumulation in global terms should not automatically be matched by descriptions of *global* modes of regulation, as is often the case. Even if it comes to be accepted that the agricultural regime of accumulation that affects Ontario also affects Brittany, it does not appear clear to me that the regulating actions in these two locations should be the same. Nor does it appear obvious to me that the mode of regulation aimed at sustaining a global regime of accumulation should be the same in Iowa as in North Carolina, two states of the same country. Any global regime of accumulation should have a distinctive impact on these two states because of differences in the structure of agriculture and in the political institutions in play. No matter what the consequences of a regime of accumulation are

for family farmers of Iowa, they have to be different than those facing the large corporate farmers of North Carolina. Differences in the urban and rural divide in these two states should require a different rhetoric and different state policies to legitimize any global regime of accumulation. As the non farming population in Iowa is more likely to be sympathetic to family farmers, more drastic legitimizing actions should be needed than in North Carolina. The type of comparative analysis that I have chosen to produce can shed more light on potential differences between countries (and sub-national jurisdictions) in terms of policy making performance.

Conclusion

The objective of this chapter was to provide an overview of a number of approaches that have been used to study the capacity of policy makers to address problems. I have surveyed the objective and solution oriented approaches which, I argue, face difficulties of application in the agro-environmental sector. Data availability prevents the establishment of a connection between policy and environmental quality. This has led researchers to focus on performance in the policy process rather than on environmental performance *per se*. The presence of three competing epistemic communities in the agro-environmental sector, however, creates uncertainty as to an approach toward which capable policy makers might be expected to converge. I should lastly underline that I found limitations in the normative position that environmental policy making should be guided by science, a position that I associate with the solution oriented approach.

I have also presented two alternative approaches. One is centred around the idea that successful policy making overcomes collective action dilemmas and the other suggests that policy making must be understood in the context of the necessity to sustain regimes of accumulation. Both of these approaches offer interesting insights at some level on policy making performance. I have argued, however, that both neglect the levels of government on which this dissertation is centred. This limitation led me to propose, in the next chapter, a different approach drawn from studies focused on policy change.

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Chapter Three

Policy Making Performance: Agenda Setting, Formulation and Policy Change

We have seen that policy making performance has often been associated with possibilities to move policies in the direction of a scientifically determined approach. Performance, in these studies, is measured by the extent to which a given country converges toward that best approach. The absence of one unchallenged agro-environmental epistemic community, however, prevents me from relying on such an approach in this dissertation. In other words, it is my view that divergence or convergence on a given approach are not useful to assess policy making performance in the agro-environmental sector.

Alternatively, I rely on the concept of policy change. No matter the approach countries choose to address the problem of agricultural pollution, I argue that capable policy makers should have the ability to make policy instruments intrusive and comprehensive. I also argue that these changes should take place without too much harm to the economic interests of the agricultural sector.

In this dissertation, I examine how policy change might be problematic from the point of view of policy making performance in two stages: agenda setting and policy formulation. Agenda setting is particularly crucial as agricultural pollution will not be addressed by policy makers until it becomes a political problem. At the formulation stage, two problems might occur: some ideas for policy change may be discouraged or inappropriate ideas might emerge. In any case, my task in this dissertation is to examine the capacity of policy makers to adopt appropriate agro-environmental policy changes in the face of potential problems arising in the agenda setting and policy formulation stages.

I begin by discussing the types of policy changes capable policy makers should be expected to adopt in the agro-environmental sector. This section is followed by one on agenda setting. Then I examine processes that might place obstacles in the way of the formulation of agro-environmental policy changes. Lastly, I discuss processes that, in contrast, might facilitate the capacity of policy makers to formulate such changes.

Policy Change and Policy Making Performance

In the introduction of this dissertation I have identified three possible ways agro-environmental policy can change. First, governments may change their approach by moving from one type of policy instrument to another. For example, a country that has always left the extension services of its ministry of agriculture to deal with agricultural pollution through educational measures might introduce a series of regulations that constrain agricultural practices. Such a change represents a shift from the educational to the regulatory approach.[1] Second, a country might modify the degree of intrusiveness of

its approach to agricultural pollution. For example, if a country accustomed to using regulatory instruments toughened the inspection and sanctions associated with those instruments, we can speak again of policy change. Intrusiveness, it will be remembered from Chapter 1, refers to the degree of change required in one or more agricultural practices by a policy instrument. Third, a country might modify the comprehensiveness of its approach. For example, if a country relying on regulatory instruments was to expand the areas of agricultural practices subject to those instruments, then this type of policy change is involved. It can occur without changing the basic approach (regulatory, educational, etc.) or altering the degree of intrusiveness. Most likely, we should note, policy reforms will involve some combination of these three types of change.

As argued in the previous chapter, deprived of one unchallenged epistemic community, I cannot decide which of the agro-environmental approaches is most indicative of policy making performance. Because we know that agricultural pollution is a problem that has grown serious in the United States, Canada, and even more so in France, however, we can expect capable policy makers to be those able to decide on some policy changes. First, policy makers in all three countries should have adopted an environmental policy for the agricultural sector, whatever the approach may be, sometime between the 1980s and the 1990s. Second, if these policies are to have any effect, they need to be moderately intrusive, that is, they have to require changes in agricultural practices that are more than surface changes. Third, the policy adopted, again whatever the approach to which it belongs, needs to be comprehensive if transfers

of pollution from one medium to the other is to be avoided.[2] A policy that deals only with the protection of soil, for example, may encourage a transfer of the pollutants into water. Fourth, the change should not be so drastic that it actually threatens the economic interests of the agricultural sector. Agriculture remains an important economic sector in France, the United States, and Canada. It occupies a large share of the total exports of the three countries and it supports a growing food processing sector.

This last requirement is most likely to be met when countries do not rely on a single approach but on some sort of combinations of approaches. Intrusive regulations could, for example, be complemented by some sort of compensation to farmers in the form of subsidies. Lotspeich argues that the "the relevant choice is not between the two [environmental] approaches, but rather one of the correct mix of market and CAC [Command and Control] instruments."[3] Writing more specifically about agro-environmental policy, Weersink and his colleagues note that "the optimal strategy for any given situation will likely involve a mix of instruments. Economic instruments could be used in conjunction with the two other major environmental policy choices, moral suasion and direct regulation."[4]

In other words, capable policy makers should have the ability to adopt an environmental policy for the agricultural sector which is somewhat intrusive and comprehensive, but which does not endanger the viability of the agricultural sector. Accordingly, capable policy makers will be those with the ability to avoid embracing policy changes that are narrow or shallow on the one side or so radical and sudden on the

other that they might significantly compromise the interests of farmers. If they formulate changes of this character, we shall describe their problem-solving performance as high.

There is a wide political science literature on policy change. Drawing on this literature, I identify in this chapter the factors that might enable policy makers to formulate policies that fit with this understanding of high problem-solving capacity. I will also examine those factors that might lower their performance. Finally, I will note some factors that may simply come in the way of any change.

Agenda Setting and Policy Making Performance

Any sort of policy change begins with agenda setting, that is the process whereby simple problems in civil society become understood to be political problems. The most straight forward theory of agenda setting asserts that problems become political when they are serious enough. Authors, for example, have argued that economic development in the OECD countries during the twentieth century gave rise to sufficiently serious social problems that the welfare state had to emerge.[5] Likewise, the development of the agricultural sector may be seen as having given rise to environmental problems sufficiently serious that policy makers could no longer simply ignore them. If this theory of agenda setting is right, given the agro environmental problems noted in Chapter 1, policy change should be inevitable.

Competing theories of agenda setting, however, lead to different expectations. Drawing on the garbage can model of decision making, Kingdon argues that in any political system, a number of policy entrepreneurs work toward putting their ideas on the

political agenda.[6] These entrepreneurs generate policy ideas that end up in what Kingdon calls a policy primeval soup. The ideas in the soup constantly combine and recombine in a long process that resembles natural selection.[7] Independent from this stream of policy ideas is a political stream. It can be characterized by factors such as the election of a new government, by interest groups lobbying, or more simply by the perception held by politicians of the changing national mood.[8] Naturally, there is also a problem stream into which problems are simply channelled.[9]

Policy entrepreneurs seek to place on the political agenda their ideas about which problems should be addressed using which solutions when a window of opportunity opens. Such an opportunity occurs when a critical event takes place in the problem stream, while simultaneously the conditions in the political stream become favourable for proposing solutions.[10] Thus, according to Kingdon's model, the emergence of serious problems is a necessary but not a sufficient condition to provoke policy change. Problems are left unattended when entrepreneurs are not in a position to take advantage of a policy window or when political conditions are unfavourable.

This is precisely the reason for which Kingdon's model is interesting here. Despite the seriousness of the problem, policy makers might leave agricultural pollution unattended. Based on Kingdon's analysis, such inaction might indicate that no policy window has opened for initiating change or else that policy entrepreneurs were not available at the time policy windows have opened. Moreover, the three countries might change their policies in a manner that is not correlated with the nature and the intensity

of the problem of agricultural pollution. For example, a country with the most serious problem might adopt the most trivial policy changes, or a country with lesser problems might push in a highly intrusive and comprehensive direction. Such outcomes also fit with Kingdon because the random element of matching problems with solutions provides no guarantee that solutions are necessarily optimal in relation to the problem.

In both these respects, Kingdon's model points to outcomes that depart from those that I have associated with high policy making performance. I expect policy change and a strong correlation between the intensity of the problem and the intrusiveness and comprehensiveness of the solution. In other words, Kingdon's model implies that policy makers will address problems in somewhat unpredictable and perhaps inappropriate ways.

I have to be alert, however, to the possibility that Kingdon's theory may be more applicable under some political institutions than others. It appears more helpful in an open rather than a closed policy making institutional environment. In an open institutional environment problems and solutions float more freely than in a closed setting where policy making is controlled by a limited number of actors, giving little if any opportunity for policy entrepreneurs.

Conditions that Might Inhibit High Policy Making Performance

Once a problem reaches the political agenda, several factors may come in the way of formulating an optimal solution. In this section, I begin by discussing the extent to which policy feedback encourages path dependency and thus prevents the adoption of the

type of policy changes that I have associated with high policy making performance. Then I move on to examine four factors (political parties, paradigm shifts, multi-tiered systems, and international regimes) that might contribute to breaking path dependency, but which also create obstacles to high problem-solving performance.

Policy Feedback

A first obstacle might rest in the apparent difficulty for policy makers to propose significant policy changes. This suggestion can be traced back to transaction costs economics and to historical institutionalism in political science. Market decisions where the number of suppliers is high, some economists argue, involve high transaction costs. This situation requires the institutionalization of the relationships between interdependent economic actors in order to reduce the uncertainty associated with strategic behaviour and to eliminate the costs in looking around for trustworthy partners.[11] When transaction costs are reduced in this way, economic actors will have few incentives to change institutions, even when better institutional alternatives are available. Drawing a parallel with technological change, Douglass North shows that institutionalization involves high fixed costs which implies increasing returns over time and thus creates an incentive for individuals to stand by their institutional decision. There are also learning effects whereby actors become familiar with an institutional setting and reluctant to incur the increase in costs associated with shifting institutional frameworks. Institutionalization, in addition, produces coordination effects which creates possibilities of cooperation with actors who have made similar institutional

decisions. These effects again appear to increase the cost of modifying an institutional trajectory. Lastly, institutionalization encourages self-fulfilling expectations further discouraging any sudden institutional change.[12] In short, if it means minimizing transaction costs, individuals are likely to choose to maintain existing institutions even if institutional models pointing to enhanced performance exist; institutional development is path dependent.

Paul Pierson argues that the reasoning of transaction costs economists can be applied in public policy studies. He contends that just like institutions, public policies "establish rules and create constraints that shape behavior."[13] Public policies in the contemporary context of "big government," Pierson shows in a study of social policy retrenchment, are difficult to change in any significant way. Pierson associates the difficulty of changing policy to policy feedback, a concept which is consistent with the insights of transaction costs economics. Pierson argues that

> "Policies may create incentives that encourage the emergence of elaborate social and economic networks, greatly increasing the cost of adopting once-possible alternatives and inhibiting exit from a current policy path. Individuals make important commitments in response to certain types of governmental action. These commitments, in turn, may vastly increase the disruption caused by new policies, effectively locking in previous decisions."[14]

Who are these individuals or groups who might commit themselves to policies? Once policies are adopted, bureaucratic expertise needs to be developed for implementation purposes. Those bureaucrats whose job consists in delivering policies are the first to make commitments and the first to resist policy changes that carry a potential to cause disruptions in their work. In addition, policies distribute benefits and impose costs. Those who have come to pay the costs develop expectations about the levels of these costs. Similarly, those who "benefit" from the policies develop strong expectations that the benefits will continue. Such expectations, in turn, create powerful "lock-in" effects.

To illustrate, the development of the welfare state in the OECD has often included the establishment of generous programmes supporting the income of farmers. Farmers grow accustomed to this type of intervention and in turn establish networks that are designed to secure the protection of their interests understood as the continuation of this income support. In delivering income maintenance programmes, bureaucrats in agricultural ministries often establish working relationships with farm groups from which they presumably obtain transaction costs discounts. Consequently, the cost for policy makers to adopt a significantly different approach in addressing the problem of income protection has to be very high as it implies facing concentrated opposition from both farmers and officials.

Because these agricultural policy networks predate the emergence of agricultural pollution as a policy problem, they might constrain policy makers to adopt pre-determined solutions in the agro-environmental sector. Farm groups and the officials of

agriculture ministries are likely to watch closely the development of an environmental policy for the agricultural sector and oppose any intrusive or comprehensive regulations. As agricultural pollution becomes a political problem, existing policy networks might constrain policy makers to adopt narrow and shallow policies. When trapped in a lock-in situation, policy makers are unlikely to be able to adequately address emerging problems.

There is a second dimension of policy feedback which points to possibilities for policy change, but which appears unlikely to enable policy makers to choose optimal policy changes for the agro-environmental sector. This second dimension refers to the information that policies produce. Policy designs, Pierson argues, help policy makers enact unpopular policies by affecting "the ability of voters to reconstruct causal chains."[15] When the benefits or the costs of a policy are scattered, popular organisation to support or attack such policies is unlikely. Conversely, political organization can be expected if the benefits or the costs of a policy are concentrated. In Pierson's analysis, visible benefits and invisible costs render a policy less vulnerable to retrenchment while invisible benefits and visible costs expose a policy to retrenchment.

Once applied to the agro-environmental sector, this logic suggests that policy makers are more likely to alter policy instruments that concentrate benefits but diffuse the costs. Green subsidies and education policies should consequently be preferred over regulations because their direct benefits are first and foremost channelled to farmers, while their costs are diffused among taxpayers. Conversely, the costs of agro-environmental regulations primarily fall on farmers while the benefits are diffused

among all users of the environment, putting farmers in a stronger position to attack such policies than others will be to defend them. This situation narrows the range of alternatives available to decision makers to education and subsidies and therefore reduces their capacity to choose from a wide combination of the various agro-environmental approaches. This narrowing is problematic because I have argued that an optimal solution to the problem of agricultural pollution is more likely to include a mix of instruments belonging to different approaches than one single approach.

Political scientists might disagree with Pierson's conclusion that policies are difficult to change as several of them argue that the political environment of the 1990s is particularly conducive to policy change. In the 1990s, left wing political parties have in fact come back to power in several OECD countries, paradigm shifts in several sectors have occurred, multi-tiered systems of governance appear to multiply, and new international regimes have emerged. All these factors, I argue, might contribute to breaking path dependency, but not in a manner that might increase the capacity of policy makers to address the problem of agricultural pollution.

Political Parties

The study of Paul Pierson on retrenchment in social policy shows that political parties are not significant factors in breaking policy trajectories. In the agro-environmental policy sector, the role of parties would seem to be even more diminished. Agricultural pollution has not been the object of mass concerns upon which political parties can hope to build political capital. That said, a given approach to agro-

environmental policy, for example command and control regulation, might run against a particular party ideology. If such a party were to gain power, the agro-environmental approach might be targeted to become part of a broader plan for change. This broader plan might then lead to a break in the agro-environmental policy path. I suggest below how this might happen in France, the United States, and Canada.

There is a vast literature, often associated with the conclusion of Downs' *Economic Theory of Democracy*, demonstrating that parties do not really matter when it comes to policy change.[16] While this literature provides interesting theoretical support for a null hypothesis, it is far from clear that it speaks to a particular problem like agricultural pollution. In contrast, a number of empirical studies have shown that government intervention differs depending on whether states are governed by the left or the right. The left appears more inclined to resort to more intrusive policy approaches while the right tends to view any growth in the power and size of the state with apprehension.[17]

This conclusion is relevant to the agro-environmental sector because the various approaches, and differences in the level of intrusiveness, and comprehensiveness mark different levels of government intervention. The cross-compliance, regulatory, and reformative approaches imply higher levels of intervention than the economic, educational, and self-regulatory approaches. Consequently, an inclination toward the regulatory and incentive approaches, for example, is more likely to be found among governments of the left than among governments of the right. Conversely, the

educational and self-regulatory approaches seem to coincide better with the views of the right than with those of the left. Higher levels of intrusiveness and comprehensiveness are more likely to characterize policy instruments under governments of the left than under governments of the right. Thus, one might hypothesize that agro-environmental policies will be more likely to depart from established policy trajectories when governments shift between the left and the right.

The 1980s and the 1990s have been characterised by some alternation between the left and the right in all three countries. After 23 years of right wing governments, the French voted massively for the left in 1981. But the reign of the left in the 1980s was not long-lived, with the right retaking the National Assembly in 1986. If the constitution of the Fifth Republic does not contain any provision on how to deal with a situation whereby the President belongs to a party different from that in control of the National Assembly, it became the practice for the President to stay in place while appointing a Prime Minister to the liking of the legislative majority. And "cohabitation," as it came to be known, endows the Prime Minister with most of the responsibilities exercised by the President under normal circumstances. The first period of cohabitation lasted until 1988 when the left was again able to win a plurality of seats in the National Assembly. And the second period of cohabitation began in 1993 when the right once more emerged as the winner of the legislative elections. The power of the right was further strengthened when Jacques Chirac won the Presidency in 1995.[18]

The separation of powers in the US creates even more problematic party divisions between the various branches of government. In the 1980s and the 1990s there were only two years, 1993 to 1995, during which the party of the President enjoyed a majority in both chambers of Congress. And between 1981 and 1987 Congress itself was divided. The authors of a recent study, suggesting that parties matter, contend that congressional majorities tend to dominate the other party even when the latter controls the Presidency.[19] Following this view, one might suggest that the Republicans were more influential than the Democrats between 1981 and 1986 because they controlled both the Senate and the Presidency. Following the same logic, the Democrats, would have become more influential in 1986 after winning both chambers of Congress in the mid-term elections. The power of the party would have strengthened further in 1993 after Bill Clinton, a Democrat, was sworn into the Presidency. Then in the fall of 1994 the domination of the Republicans would have come back after the party won a majority of seats in Congress.

In Canada, the Progressive Conservative Party defeated the Liberal Party in 1984 with a majority of seats in the House of Commons for the first time since 1958. The Conservatives enjoyed two terms in office until 1993 when the Chrétien government, a Liberal government, was elected. Given the low involvement of the federal government in Canada in the sector of agro-environmental policy, I pay more attention to two provinces, namely Ontario and Québec. Party alternation also occurred in these two provinces in the 1980s and 1990s. Ontario politics had traditionally been dominated by the Conservative party. But in 1985 the Conservatives were replaced by an informal

governing group involving the Liberal Party and the New Democratic Party (NDP). This two-party accord, clearly left wing oriented, lasted two years. Following its collapse, the Liberal Party led by David Peterson won a majority of seats in the Legislative assembly. Surprisingly enough, the Liberal Party, favourite in the polls, was defeated in an early election in 1990 by Bob Rae's NDP. Following a term marked by scandals and allegations of mis-management, the NDP suffered a major loss to the Conservative party in 1995. In Québec, the Parti Libéral du Québec (PLQ), a party of the right, won the 1985 election against the incumbent social democratic Parti Québécois (PQ). The PLQ enjoyed two terms in office and was replaced by the PQ in 1995.

Based on this analysis, party induced departures from policy trajectories are more likely during different periods for each country. In France, a shift toward more interventionist approaches and higher levels of intrusiveness and comprehensiveness are most likely between 1981 and 1986 and between 1988 and 1993 when the left was dominant. At the federal level in the United States, increases in the intrusiveness and the comprehensiveness of the regulations and a change toward interventionist approaches would be more likely between 1987 and 1995. Conversely, a departure from higher intervention and higher degrees of intrusiveness and comprehensiveness is more likely after 1995 when the right controlled Congress. In Québec, a conservative swing would be more likely between 1985 and 1994 when the Liberal party returned to power after eight years of PQ rule. In contrast, in Ontario, interventionist instruments became more likely during the same period because of governments of the centre-left and left.

Optimal choices for change in the agro-environmental policy sector are unlikely to result from the implementation of a party's broader plan for change. If the broader plan belongs to the left, intrusive and comprehensive command and control policies are likely to be adopted, but perhaps with little consideration for the economic interests of farmers. In contrast, these interests are likely to be protected by a broad plan coming from right wing parties, but the environmental policies are unlikely to require the changes in agricultural practices necessary to protect the environment. Left and right parties are unlikely to prefer mixing approaches, some interventionist, others more voluntary. In short, if parties do contribute to breaking path dependency, it does not appear to be in a manner that might improve policy making performance.

Paradigm Shift

As I mention above, Pierson's study of retrenchment shows that political parties do not have as strong an impact on policy change as might be expected. In fact, historical institutionalism was developed as an alternative to power based arguments. Historical institutionalists, however, face the problem of explaining policy change when institutional arrangements remain constant.[20] The most promising avenue to address this problem has been to consider the extent to which ideas can contribute to breaking path dependency. A major development in that line of thought consists of Hall's analogy between the Kuhnian process of paradigms shifts in the scientific world and policy change. Hall defines a paradigm as "a framework of ideas and standards that specifies not only the goals of policy and the kind of instruments used to attain them, but also the

very nature of the problem they are meant to be addressing."[21] After working with a paradigm for a certain time, policy makers become aware of anomalies which cumulate to a certain point when the paradigm becomes clearly inadequate and needs replacing. Such social learning, Hall explains, led to the replacement of Keynesianism by Monetarism in Britain. He argues that in the British context of institutional stability, a number of anomalies with Keynesian policies, notably high unemployment simultaneous with high inflation, became so difficult to understand that a new paradigm was needed to provide policy makers with guidance.[22]

This analogy of paradigm shift has been mostly used in economic sectors. In agriculture, for example, it has been argued that a shift from a state assisted paradigm toward a market liberal paradigm has occurred in the 1980s.[23] The central objective of the state assisted paradigm was to render farmers more efficient through state aid. Realizing that state assistance was encouraging overproduction while keeping inefficient farmers on the land, and all this at a high budgetary cost, policy makers throughout the western world were tempted to turn to market liberalism as a means of rationalizing production and encouraging efficiency.

One can argue that paradigms have also guided environmental policy. In the 1970s, the main environmental paradigm pushed policy makers to focus their attention on controlling waste discharges into the environment. Regulations were then adopted to control industrial and municipal dumping of wastes in inappropriate sites including water and the air. After almost twenty years of environmental regulations, policy makers began

realizing that little progress had been made in certain areas. This anomaly led to the idea that direct discharges into the environment might not be the main source of pollution. Policy makers increasingly began turning their attention toward non point source pollution which, as shown in the previous chapter, appears to require new types of policy instruments. While monitoring and enforcement is unproblematic for "end of pipe" type of pollution, it is for non point source pollution.[24] Consequently, educational and economic instruments should replace regulations. In short, no longer able to provide an understanding of the quality of the environment, the discharge paradigm was replaced by a non-point source paradigm which stresses the necessity to change the traditional environmental policy.

The learning that precedes paradigm shifts can only improve policy making performance.[25] However, whether paradigm shifts, overall, improve policy making depends on the quality of the ideas associated with the new paradigms. And assessing the quality of the ideas of the non-point source paradigm in the agro-environmental sector faces the same difficulties as identifying an optimal policy solution for the problem of agricultural pollution: epistemic communities still vigorously debate the appropriateness of various policy alternatives.

Therefore, here too, it may be worth taking a step back simply to consider the type of changes associated with paradigm shifts. Again, a paradigm is a set of ideas allowing policy makers to understand given situations and from which they can deduce courses of action. Thus, because they produce new understandings of problems,

paradigm shifts open up new courses of action or policy alternatives. By the same token, paradigm shifts discredit the policy alternatives associated with past understandings of problems. In other words, paradigm shifts might amount to accepting the proposals of an epistemic community and ignoring those of competing, perhaps more marginal, epistemic communities. For example, those policy makers who have come to understand environmental policy making through the lenses of the non-point source paradigm might fail to consider relying on command and control instruments in dealing with agricultural pollution, even where such instruments might produce benefits. Policy makers are certainly unlikely to rely on a wide range of policy instruments, a desirable situation in the agro-environmental sector, when their thinking is severely constrained by a single paradigm.

Multi-Tiered Systems

A multi-tiered system is one where the governance of a sector is shared between two or more levels of government. The traditional federations of the United States and Canada are prime examples of multi-tiered systems. With increasing regionalisation, however, multi-tiered systems of various new forms are emerging.[26] It appears important to distinguish between two ideal types of multi-tiered systems. First is the "dual type" where each level of government is independent in at least one area of jurisdiction. The Canadian and the American constitutions, for example, create two dual types of federations. But authors have argued that even the European Union now enjoys some autonomy vis-à-vis the member states in some sectors.[27] The second type is one where

the two levels of governments are interlocked. Germany offers a good example of a federal system where politics is interlocked because the Bundesrat, a legislative chamber of delegates from the Länder, has the power to veto a large proportion of the bills of the federal government. In several sectors, the system of the European Union also constitutes a multi-tiered system into which politics is interlocked between the Commission, a supra-national institution, and the Council of Ministers, an intergovernmental institution. Even intergovernmental relations in Canada and "picket fence federalism" in the United States might interlock politics in some sectors. It is important to distinguish between these two ideal types of multi-tiered systems as they are likely to have differential impacts on policy change. I begin with a discussion of the dual type of multi-tiered system.

There is ample evidence that environmental standards are less constraining on industry in federal systems than in unitary systems.[28] Environmental policies are unpopular among those they target. As a result, policy makers may be tempted to ignore their responsibilities in this sector. Ignoring responsibilities, however, can be politically costly and federalism offers policy makers at the central level a discount on such political costs. Unlike policy makers in unitary systems, if constitutional rules are sufficiently elastic, they can push the authority over environmental policy down to the sub-national governments. This way, federal officials do not have to enact the environmental policies unpopular among the business constituency and at the same time they avoid the blame for absence of action.

In situations where the authority is decentralized, there are reasons to expect little policy action in the environmental sector. Sub-national governments within federations are in competition to attract job creating investments. This situation increases the capacity of businesses to exit from a jurisdiction for the purpose of locating where policies are more amicable. Escaping this situation requires low regulatory standards and low taxes thereby diminishing the capacity of sub-national governments to adequately address environmental problems. This process is often referred to in the literature on federalism as the "race to the bottom."[29] When such a race to the bottom occurs in the agro-environmental sector, policy change is in the direction of less intrusive and less comprehensive policies. In the face of increasing agricultural pollution, such a change naturally indicates a low capacity on the part of policy makers to address problems.

In multi-tiered systems where politics is interlocked between two levels of government, the prospect for policy making performance may not be much better. Policy formulation in such systems features two main characteristics. First, policy formulation, in addition to dealing with the question of what to do, has to address the question of who should do it. As Pierson argues, the "result will usually be policy designs that are sensitive to the institutional concerns of constituent units." He adds that "a policy that seeks to achieve two goals (substantive outcomes and protection of a variety of institutional interests) is likely to be less effective in achieving each than a policy that is directed toward only one goal."[30] Second, when decisions depend on the agreement of

actors representing different levels of government, policy makers tend to pursue smallest common denominator policies. In such situations, policy formulation is less oriented toward solving a problem than it is toward finding a compromise acceptable to all actors. Scharpf has shown that such "joint decision traps" produce sub-optimal policies.[31] In the agro-environmental sector, this may imply a mis-allocation of subsidies or regulations that are not very intrusive or comprehensive.

If interlocking federalism has been mostly used to describe the situations of Germany and the European Union, it may nevertheless apply to the United States and Canada as well. In the United States, situations of "marble cake" federalism or "picket fence" federalism whereby the federal government and state governments cooperate to deliver public services in certain sectors, might involve some level of interlocking politics.[32] In Canada, "executive federalism" or "federal-provincial diplomacy" clearly involves interlocking politics as policy decisions tend to be made unanimously into these forums.[33] In short, if we can expect the race to the bottom to occur in Europe just as much as in the United States and Canada, we can also expect situations of interlocking federalism to influence agro-environmental policy change in Canada and the United States just as much as in Europe. Neither of these situations however are promising for policy making performance as they might encourage policy makers to adopt shallow and narrow agro-environmental policies.

International Regimes and the Internationalization of the Economy

International regimes have become increasingly common and, it has been argued, they free government executives from domestic interests thus increasing their capacity to bring about policy change. Government executives are the main actors in such regimes' policy formulation and decisions. It has, however, increasingly been accepted that the negotiation of regimes' rules by government executives takes on the form of a two level game.[34] At level one, the nation-state level, executives have to convince domestic actors to accept some concessions over elements that fall outside the international "win-set," that is the extent to which international actors are ready to compromise to be part of an agreement. Similarly, at level two, the international level, executives have to convince their negotiation partners to accept compromises that match the domestic win-set. By manipulating win-sets, state executives would be able to obtain large concessions from domestic actors and possibly from international actors.[35] For example, domestic actors can be led to believe that they need to accept programme retrenchment if an important international agreement is to be concluded.[36] In other words, state executives are able to use regime negotiations in order to free themselves from lock-in effects and path dependency.

Once negotiated, international regimes present some political risks for state executives.[37] Regimes embody sets of rules that in time may require countries to take actions they would not have taken otherwise. A prime example is Toner and Conway's

suggestion that Canada's commitments to environmental regimes will eventually force the country to strengthen its regulations in this sector.[38]

Environmental regimes have become common since the 1970s.[39] But none so far have had a significant impact on policies regarding agricultural pollution. Curiously enough, trade regimes might present more risks for domestic policy makers in the agro-environmental sector. Students of international relations contend that left-wing governments suffer most from a "loss of policy autonomy" in the hands of an environment rendering international transactions easier.[40] The globalization of economic activities encouraged by trade regimes is often quoted as contributing to pressure for policy change in the direction of neo-liberalism.[41] Grace Skogstad, for example, argues that increasing commercial exchanges between Canada and the United States, as fostered by the Free Trade Agreement, the North American Free Trade Agreement, and the Uruguay Round agreement of the General Agreement on Tarriffs and Trade (GATT), have reduced the capacity of Canada to regulate or spend in agriculture.[42] The regulated Canadian agricultural markets have become one of the favourite targets of Americans and it is increasingly difficult for Canadian policy makers to resist those attacks because of the regime rules that they accepted. And the international competition that results from these regime rules in agriculture presents a potential for constraining the agro-environmental policy alternatives at the disposal of policy makers.

Frieden and Rogowski claim that "exogenous easing" of international transactions, such as monetary and trade regimes, modifies the preferences of domestic

actors. While acknowledging that institutions might create some variations from one country to the next, they claim that the modification of preferences resulting from exogenous easing is likely to lead to the formation of powerful coalitions of actors in favour of liberal economic policies.[43] As the emergence of international regimes diminishes the cost of trading agricultural commodities, farmers who can export their production, this analysis suggests, will become increasingly concerned with protecting their competitive advantages while those whose export potential is low will worry about market protection. Naturally, the protection of competitive advantages requires an environment relatively free of regulations while protecting markets necessitates some regulatory frameworks. The former view is more likely to prevail as the power of the coalition of export oriented farmers is likely to be enhanced by the potential growth commanded by their economic activities over that of farmers whose export capacity is low. As trade regimes lower the cost of international transactions, export oriented farmers are likely to be successful in pushing for policy changes in the direction of shallow and narrow agro-environmental policies. In short, a risk associated with trade regime is a change in environmental policy that is indicative of low performance.

Summary

In the face of increasing agricultural pollution, policy makers with high problem-solving capacity, should have the ability to develop an environmental policy for the agricultural sector. No matter what the preferred approach, the new policy should be intrusive and comprehensive while allowing the agricultural sector to prosper. The

literature on agro-environmental policy instruments suggests that these goals are most likely to be met when policy makers decide to combine various approaches as opposed to relying on only one such approach.

In this section, I have shown that policy makers are likely to face some difficulties in making these types of policy changes. First, they will be faced with feedback from previous agricultural policies which have incited farmers to organise themselves for the purpose of protecting their interests. Second, they will have to resist ideas coming from political parties which promote changes that may not fit with the changes actually required to address given agro-environmental problems. Third, policy makers will need to preserve their ability to draw from the proposals of competing epistemic communities, even when paradigm shifts appear to discourage such a practice. Fourth, policy makers will have to counter the pressure, common in federal systems, for low environmental standards or lowest common denominator policies. Lastly, policy makers will have to overcome the risks for environmental policy associated with trade regimes.

Conditions that Might Enhance Policy Making Performance

Thus far I have identified obstacles in policy formulation processes that may prevent policy makers from high performance in addressing problems in the agro-environmental sector. Policy formulation processes may also feature characteristics that carry a potential for improving policy making performance. In this section, I speak about

the potential impact of policy learning, I revisit the question of multi-tiered systems, and I discuss the potential policy effects of pluralism and corporatism.

Policy Learning

Above, I have discussed two dimensions of policy feedback: lock-in effects and information on costs and benefits associated with different policy designs. Policy learning constitutes another dimension of policy feedback which did not turn out to be significant in Pierson's study of retrenchment. As the author argues, policy learning occurs mostly when policy making is characterized by complexity and uncertainty, a situation which does not correspond to that of retrenchment.[44] As should be obvious from the last chapter, however, uncertainty characterizes the agro-environmental sector. There is no one unchallenged epistemic community proposing a solution to the problem of agricultural pollution. Under these circumstances, it is reasonable to expect policy change to result from policy learning, and I argue that change occurring through this process is likely to make for better policies.

Hugh Heclo is associated with the early literature on policy learning.[45] When new problems arise, he argues, policy makers design policies based on successful past experiences and avoid mistakes committed in the past in dealing with similar problems. In other words, policy decisions, under conditions of uncertainty, will tend to be based on lessons learned from past experiences.

Building on the work of Heclo, Jenkins-Smith and Sabatier have recently proposed a framework to better our understanding of policy learning. They define policy

learning as "an ongoing process of search and adaptation motivated by the desire to realize core policy beliefs."[46] Actors in policy sub-systems engage in policy advocacy when they perceive a threat to core policy beliefs or an opportunity to realize them. Policy advocacy, according to Jenkins-Smith and Sabatier, involves analytical debates on aspects such as data validity regarding the seriousness of a problem, causal assumptions, and cost assessments. If these debates are not a "disinterested search for truth," they may nevertheless lead actors to reexamine some aspects of their belief system and join in an advocacy coalition, possibly enabling the introduction of secondary policy changes.[47]

When such policy learning occurs, I hypothesize, policy makers are likely to introduce some of the policy changes that I have associated with high policy making performance in the agro-environmental sector. Drawing on the documented successes obtained by past environmental policy in lowering industrial and municipal pollution, actors may be able to convince other actors to join in an advocacy coalition requesting an agro-environmental policy that would require farmers to adopt some new agricultural practices. If the presence of a competing advocacy coalition more amicable to the core beliefs of farmers may be able to moderate the intrusiveness and comprehensiveness of the policy change, the required changes in farming practices may nevertheless be intrusive enough to have an environmental impact and comprehensive enough to prevent some transfer of pollution from one medium to the next.

Policy learning, Jenkins-Smith and Sabatier argue, is likely to lead to more significant policy changes when it occurs across advocacy coalitions, that is between

actors who have different core beliefs. Learning across advocacy coalitions, while more difficult than learning within an advocacy coalition, is a distinct possibility when the level of conflict between the coalition remains at a manageable level, when data allow the traceability of the cause of a problem, and when fora bringing together "professionals" from different coalitions exist.[48] Where these conditions are present, I hypothesize, the policy making process is likely to be conducive to good performance.

Assuming that the level of conflict between those who seek to constrain farming practices and farmers is manageable, that it is possible to trace pollution to agricultural sources, and that fora bringing different professionals together exist, learning will likely lead to a policy change that amounts to adopting instruments that belong to a mix of approaches. Under such conditions, farmers may develop a sensitivity to the issue of environmental protection while groups who seek more environmental regulations for the farming sector may gain an awareness of the economic problems facing agriculture. Data might convince farmers to accept policies that constrain their agricultural practices, while ecologists may become convinced by some research that traditional command and control instruments face limitations in agriculture or hurt the sector too much. In short, learning across advocacy coalitions might facilitate the adoption of an intrusive and comprehensive agro-environmental policy which accounts for the interests of the farming community.

Corporatism and Pluralism

The environment of the 1990s, it has been argued, has been conducive to important policy changes. We have seen above how paradigm shifts and internationalization might affect domestic policies. Some political scientists have, however, argued that external pressure for policy change may be significantly mediated by domestic institutions.[49] Groups and institutions, this type of analysis suggests, are likely to reconstruct paradigms and pressures coming from internationalization to their particular circumstances. For example, the bureaucrats of an environment ministry whose job has traditionally been to enforce regulations in a given country may be convinced by the evidence produced by an epistemic community that it is necessary to tackle non point source pollution, but they may be unwilling to give up command and control instruments. In turn, if the institutional setting of the country allows those bureaucrats to play a large role in policy formulation, the policy change is likely to represent a specific adaptation of the non point source paradigm.

Particularly interesting is the literature contrasting the mediating effect of pluralist and corporatist settings. Coleman argues that new paradigms can be more thoroughly adopted in pluralist settings than in corporatist settings. Where interest groups in a sector are numerous, where they mostly play a role of policy advocates, and where the state bureaucracy appears weak, policy makers may be more open to influence from new paradigms. After having crippled under the weight of anomalies, a paradigm can be rapidly abandoned by policy makers working in pluralist settings, while the

instruments associated with an emerging paradigm can be swiftly put into place, a situation often referred to as "punctuated equilibria."[50] In contrast, in corporatist settings where state bureaucracies are strong and where sectoral interests are represented by peak associations enjoying a relationship of concertation with state actors, emerging paradigms are less likely to be adopted wholesale. While new paradigms contribute to legitimize new actors, old paradigms contribute to legitimize several of the actors that are members of such corporatist networks. These latter actors therefore insist to hold on to some of the elements of the older paradigms. The result of the negotiations between new and older actors considerably alters the policy ideas associated with emerging paradigms. Similarly, Garrett shows how policy makers in corporatist settings, in contrast to those in pluralist settings, have adopted new policies in the face of economic internationalization that do not amount to pure market liberalism.[51]

The effect of paradigm shifts and internationalization, this literature suggests, is maximized in pluralist settings, again a situation unlikely to help policy makers decide on appropriate policy changes in the agro-environmental sector. What does the mediating effect of corporatist settings imply for policy making performance? Garrett makes a clear demonstration that corporatist settings perform well in an internationalized economic environment.[52]

Perhaps even more interesting for my purpose, Streeck and Schmitter argue that better public policies can emerge from corporatist arrangements.[53] First, corporatist arrangements can contribute to avoiding bureaucratic implementation failures. Because

of the control that group leaders exercise on their membership, they are better positioned than bureaucrats to obtain policy compliance. Second, Streeck and Schmitter suggest that corporatist arrangements "inject an element of stability in their respective polities which makes them less subject to changing political fashions." But that is not to say that corporatist arrangements prevent policy changes from occurring. Streeck and Schmitter add, and this is the third point, that "an elaborate intermediary associational structure seems to enlarge a country's repertoire of policy alternatives (...) and this may enable such countries to respond to new problems without having to undergo dramatic internal realignments."[54] In short, policy changes in a corporatist setting are more likely to draw from different approaches that satisfy a range of interests, a situation that reflects a high policy making performance in the agro-environmental sector. Streeck and Schmitter, however, warn that corporatist decision-making is a lengthy process which may lead to unaesthetic solutions often targeted by "normative assaults coming from communitarian, market and state sources."[55]

The agro-environmental sector is characterized by corporatist settings in France, in Québec, and in the 1990s even in Ontario. Pluralist settings are dominant only in the United States, making thorough and sudden policy changes more likely in this latter country. For example, American policy makers should be prone to pick on the new non point source ideas supporting educational and economic approaches. Conversely, policy makers in France and Canada are likely to choose a mix of instruments, some derived from the non point source paradigm, others coming from other sources. In short, if

corporatism matters, policy makers in France and Canada should be better able to perform than those in the United States.

Multi-tiered Systems Revisited

Dual federalism might encourage a race to the bottom and systems which interlock politics might force the formulation of compromises representing lowest common denominators. Because there is a vast literature on the merit of federalism, political scientists might view these two hypotheses on the policy impact of multi-tiered systems as unjustifiably dark. In what follows, I examine two additional effects which might make policy changes possible, changes that I have associated with good policy making performance.

First, dual federalism, it has been argued, encourages policy learning beyond what I have discussed so far. Autonomous sub-national governments may act as laboratories, experimenting with new innovative policies without putting the whole country at risk. In turn, these experiments create opportunities for the other sub-national governments and for the federal government to learn about which types of policy work and which do not. Once knowledge about policies is generated in this way, the federal government can serve as an instrument of diffusion; the policies that appear to produce good results can be adopted countrywide. A prime example of this process is the development of a universal health care policy in Canada which began with an experiment in the province of Saskatchewan.[56]

Sub-national governments in Canada and in the United States and European member states may be inclined to experiment with innovative mixes of agro-environmental approaches. Those policy innovations that change agricultural practices in a manner significant from an environmental point of view, while not jeopardizing agricultural prosperity, may quickly be adopted by other sub-national governments or member states and, where possible, by the central or the supra-national governments. Because of its more limited policy making capacity, however, the European Union might not function as efficiently as Canada and the United States as a mechanism diffusing policy innovations. It remains that by providing opportunities to learn, federal or quasi federal structures may improve the capacity of policy makers to address the problem of agricultural pollution.

Second, and perhaps more common in multi-tiered systems where politics is interlocked between two levels of government, there is a larger array of strategies at the disposal of policy makers in federal systems. In the face of a particular collective action problem, perhaps caused by a lock-in effect, sub-national policy makers can petition the central government for assistance.[57] As Pierson argues, "the interaction of governmental tiers involves more than 'zero-sum' conflict. Federal systems can also generate 'positive-sum' efforts to sort out responsibilities across tiers in a way that best meets the needs of many parties."[58] This proposal appears particularly interesting in light of the argument that performing policy makers in the agro-environmental sector should have the ability to look after the environment without undermining the agricultural sector.

Locked into an agricultural policy network, sub-national policy makers can always petition the central government to ensure that actions are undertaken to protect the environment.

This strategy of petitioning another level of government is obviously also available to social groups in multi-tiered systems. Groups which suffer from a policy lock-in at a given level of government may be more successful at petitioning another level of government whose policy choices, and consequently lock-ins, have been different. Where strong agricultural policy networks exist at the sub-national level, environmental groups may be inclined to petition the federal government to act in the area of agro-environmental policy. This may generate "positive sum" results whereby the sub-national governments look after the interests of farmers while the federal government's role is to ensure the protection of the environment.[59] Such a situation matches the definition of high agro-environmental policy making performance.

In the European Union, the process of petitioning at the supranational level differs and may produce different results. In multi-level systems of governance, Coleman and Perl argue, the communities of actors are likely to sharply differ from one stage to the next in the policy process. The formulation of European policies is likely to be dominated by transnational actors and the European Commission. Domestic networks of actors, for their part, matter a great deal in the implementation of European Policies.[60] This is important as it may diminish the efficacy of European policies when compared to those of central governments in federal systems. The European Commission, the

executive branch of the European Union, possesses only a limited budgetary and bureaucratic capacity and thus must rely on member states to implement its decisions. Because the Commission has little means to force compliance with its decisions, member states enjoy a high level of autonomy in implementing European directives and regulations.[61] And member states appear not to hesitate to use this autonomy to absorb the impact of European directives, at least in the agro-environmental sector.[62] In short, even if the transnational actors are successful at petitioning the European Commission when it formulates policies, domestic policy networks may still be well positioned to block significant policy changes at the implementation stage of European directives. Therefore, the federal environment of the United States and Canada may be more conducive to policy performance than the multi-level governance environment of the European Union.

Conclusion

In Chapter Two, I have shown that it cannot be concluded that one of the five agro-environmental approaches that I have identified is better than the other. In other words, it cannot be said that a country with a high performance capacity is one whose policies converge on just one approach. In the first section of this chapter, however, I argue that it is possible to associate some types of policy changes with good policy making performance in the agro-environmental sector. More specifically, any instrument that is meant to have a positive environmental impact has to be intrusive in requiring significant changes in agricultural practices. Agro-environmental policies also have to

be comprehensive to prevent the transfer of pollution from one medium to the next. Lastly, all this must be accomplished without jeopardizing the interests of the agricultural sector. I argued that the goals of environmental protection and economic prosperity are most likely to be satisfied when policy makers mix policy instruments that belong to different approaches.

The adoption of such policies in the face of increasing agricultural pollution may, however, present several difficulties. I have shown that there is a possibility that even if it constitutes a serious problem, agricultural pollution faces the risk of failing to land on the political agenda. But assuming that agricultural pollution does become a political problem, I have identified five additional difficulties in the process of policy formulation. Policy feedback may prevent the formulation of any significant policy change. Past agricultural policies have created lock-in effects which may raise the cost for policy makers of adopting an intrusive and comprehensive environmental policy for the agricultural sector. Political parties, paradigm shifts, multi-tiered systems, and international regimes may enable the breaking of policy path, but, I have argued, not in a manner that increases the possibility for policy makers to adopt intrusive and comprehensive policy instruments drawn from a mix of agro-environmental approaches. In short, in the political environment of the 1990s, it may be difficult for policy makers to perform at a "high" level.

Not all political scientists, however, would agree with this conclusion. Some have argued that policy change may result from policy learning, and I have demonstrated

how such processes may be conducive to the adoption of policy changes that are associated with high policy making performances in the agro-environmental sector. I have also discussed this literature which suggests that external pressure for change may be mediated by corporatist institutional settings in a manner consistent with policy making performance. Lastly, I have added insights from theories of federalism which suggest that multi-tiered arrangements might encourage policy learning by experimentation and might increase the range of strategies available to actors in a manner that makes the adoption of a mix of approaches more likely.

In the next three chapters I present, in turn, the extent to which agro-environmental policy change has occurred in France, the United States, and Canada. In addition, I discuss the reasons that cause the three countries to make different choices in changing their policies. In Chapter 7, I come back to the various obstacles to high problem-solving capacity found in agenda setting and policy formulation processes to discuss the extent to which they were overcome by policy makers. Naturally, I also discuss the extent to which the factors identified in the last section of this chapter have helped raise policy-making performance.

End Notes

1. For a summary of the possible agro-environmental policy approaches see Table 1.1.

2. On this point see Barry G. Rabe and Janet B. Zimmerman, "Beyond Environmental Regulatory Fragmentation: Signs of Integration in the Case of the Great Lake Basin," *Governance*, 8: 1 (1995), 58-77.

3. Richard Lotspeich, "Comparative Environmental Policy: Market-type Instruments in Industrialized Capitalist Countries," *Policy Studies Journal*, 26: 1 (1998), 99.

4. Alfons Weersink, John Livernois, Jason F. Shorgren, and James S. Shortle, "Economic Instruments and Environmental Policy in Agriculture," *Canadian Public Policy*, 24: 3 (1998), 321.

5. Michael Howlett and M. Ramesh, *Studying Public Policy: Policy Cycles and Policy Subsystems*, (Toronto: Oxford University Press, 1995), 105-107.

6. John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (New York: HarperCollins College Publishers, 1995). The original formulation belongs to Michael Cohen, James March, and Johan Olsen, "A Garbage Can Model of Organizational Choice," *Administrative Science Quarterly*, 17 (March 1972), 1-25. See also Vincent Lemieux, *L'étude des politiques publiques: Les acteurs et leur pouvoir*, (Québec: Les Presses de l'Université Laval, 1995).

7. Kingdon, *Agendas, Alternatives, and Public Policies*, Chapter Six.

8. Kingdon, *Agendas, Alternatives, and Public Policies*, Chapter Seven.

9. Kingdon, *Agendas, Alternatives, and Public Policies*, Chapter Five.

10. Kingdon, *Agendas, Alternatives, and Public Policies*, Chapter Eight.

11. See Oliver E. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications*, (New York: The Free Press, 1975).

12. Douglass C. North, *Institutions, Institutional Change and Economic Performance*, (Cambridge: Cambridge University Press, 1990), 93-94.

13. Paul Pierson, *Dismantling the Welfare State? Reagan, Thatcher, and the Politics of Retrenchment*, (Cambridge: Cambridge University Press, 1994), 44.

14. Paul Pierson, *Dismantling the Welfare State?*, 44.

15. Pierson, *Dismantling the Welfare State*, 45.

16. Anthony Downs, *An Economic Theory of Democracy*, (New York: Harper-Collins Publishers, 1957).

17. Francis C. Castles, (ed), *The Impact of Parties: Politics and Public Policy in Democratic Capitalist States*, (Beverly Hills: Sage, 1982). For a summary of the literature on this matter see André Blais, Donald E. Blake, and Stéphane Dion, *Governments, Parties, and Public Sector Employees: Canada, the United States, Britain, and France*, (Montreal: McGill-Queen's University Press, 1997), chapter 1.

18. The right lost the National Assembly again in the spring of 1997.

19. Blais, Blake, and Stéphane Dion, *Governments, Parties, and Public Sector Employees*, Chapter 3. Others have, however, argued that the party of the president matters most. See Hans-Dieter Klingemann, Richard I. Hofferbert, and Ian Budge, *Parties, Policies, and Democracy*, (Boulder: Westview Press, 1994), Chapter 8. As far as agriculture is concerned, the thesis that Congress matters more than the Presidency appears more credible.

20. Peter A. Hall and Rosemary C.R. Taylor, "Political Science and the Three New Institutionalisms," *Political Studies*, XLIV (1996), 936-957.

21. Peter A. Hall, "Policy Paradigms, Social Learning and the State: The Case of Economic Policymaking in Britain," *Comparative Politics*, 25 (1993), 279.

22. Hall, "Policy Paradigms, Social Learning and the State."

23. William D. Coleman and Grace Skogstad, "Neo-Liberalism, Policy Networks, and Policy Change: Agricultural Policy Reform in Australia and Canada, *Australian Journal of Political Science*, 30 (1995), 242-263; William D. Coleman, Grace Skogstad, and Michael M. Atkinson, "Paradigm Shifts and Policy Networks: Cumulative Change in Agriculture," *Journal of Public Policy*, 16 (1997), 273-301; William D. Coleman, "From Protected Development to Market Liberalism: Paradigm Change in Agriculture," *Journal of European Public Policy*, 5: 4 (1998), 632-651.

24. Organisation for Economic Co-operation and Development, *Environmental Performance in OECD Countries: Progress in the 1990s*, (Paris: OECD, 1996), 22-23.

25. I come back to policy learning later.

26. Daniel J. Elazar, "From Statism to Federalism: A Paradigm Shift," *Publius: The Journal of Federalism*, 25: 2 (1995), 5-18; Philip G. Cerny, "Globalization and the Changing Logic of Collective Action," *International Organization*, 49 (1995), 595-625.

27. Gary Marks, Liesbet Hooghe, and Kermit Blank, "European Integration from the 1980s: State-Centric v. Multi-level Governance," *Journal of Common Market Studies*, 34: 3 (1996), 341-378; Thomas Risse-Kappen, "Exploring the Nature of the Beast: International Relations Theory and Comparative Policy Analysis Meet the European Union," *Journal of Common Market Studies*, 34: 1 (1996), 53-80.

28. Lennart Lundqvist, *Environmental Policies in Canada, Sweden, and the US: A Comparative Overview*, (Beverly Hills: Sage Publications, 1974), 140; Kathryn Harrison, *Passing the Buck: Federalism and Canadian Environmental Policy*, (Vancouver: UBC Press, 1996).

29. Paul Pierson, "Fragmented Welfare States: Federal Institutions and the Development of Social Policy," *Governance*, 8: 4 (1995), 457.

30. Paul Pierson, "Fargmented Welfare States," 461.

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32. Daniel J. Elazar, (1994), "Cooperative federalism in the United States," in Daniel J. Elazar, *Federalism and the Way to Peace*, (Kingston: Institute of Intergovernmental Relations, 133-158; Deil S. Wright, *Understanding Intergovernmental Relations*, third edition, (Monterey: Brooks/Cole, 1989).

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Chapter Four

France: Explaining Profound Policy Change

Perhaps even more than other countries, France took advantage of the postwar "embedded liberal"[1] compromise to fully participate in the "protected-development" agricultural policy paradigm.[2] In the early 1960s, France adopted two guidance laws in an effort to support the modernization of its agricultural sector. The laws provided for the consolidation of farms into larger units, the retirement of older farmers with smaller holdings, and legal and financial measures to support inter-farmer economic collaboration. In parallel, the Common Agricultural Policy (CAP) was established to provide border protection, price support, and export subsidies encouraging the development of a productive European agriculture, actually largely to the benefit of France.[3] As a result of this encouragement to "productivism," French agriculture became increasingly concentrated geographically and intensive in its use of inputs ranging from specialized feed for livestock to chemical fertilizers and pesticides for crops, having the consequences for the environment that I have already discussed in Chapter One.[4]

One might, however, expect France to avoid addressing the problem of agricultural pollution with policy instruments that would seriously constrain farming practices. The reform of the CAP in 1992 and the Blair House agreement[5] of 1993 mark the beginning of a transition from the protected-developmental paradigm to a market-liberal paradigm which promises to expose French farmers to market forces and international competition.[6] Under such circumstances, farmers are likely to disapprove of stringent regulations that might impede on their competitiveness. Even if it appears that they have lost the battle over the 1992 reform of the CAP, farmers in France remain well organised into a peak association, the Fédération Nationale des Syndicats d'Exploitants Agricoles (FNSEA).[7] In addition, the interests of the group are strongly entrenched into a corporatist policy network which may be expected to produce a lock-in effect around non intrusive policy instruments. After all, the corporatist network was put into place to promote the use of the modern farm practices now blamed for deteriorating the environment.[8] In any case, France appears unlikely to choose to confront farmers in the first place because of the weakness of its environmental groups and the non-confrontational approach of the Ministry of the Environment in sectors outside agriculture.[9]

This expectation proved to be right for the 1980s. The agro-environmental policy instruments adopted during that decade were voluntary and did not intrude into agricultural practices. Existing environmental regulations were only marginally applying to farming and no efforts were made to extend their reach further into the

sector. The situation, however, changed rather radically in the 1990s when a host of stringent regulations and intrusive programmes were adopted. The central objective of this chapter is to make sense of this profound policy change. Its meaning for policy making performance will be discussed at greater length in Chapter 7.

How do I explain the profound change that occurred in the French agro-environmental policy between the 1980s and the 1990s? The pressure for regulations, I argue, came from the European Union. But instead of directly producing policy change, it produced changes in the policy community: the pressure legitimized the French ministry of the environment as a participant in policy formulation. Demands for regulations were also mediated by the presence of a corporatist arrangement in the agricultural sector. Corporatism rendered necessary the provision of compensations or side payments, or policy instruments that belong to an approach different from the regulatory approach. It appears that the policy change which took place in France between the 1980s and the 1990s is indicative of a high policy making performance.

This chapter is divided into two sections. In the first section, the nature of the policy change is explored further. In the second section, the changes in the policy communities and policy networks that made possible policy change are described in detail.

Agro-Environmental Policy Change

In order to assess agro-environmental policy change, I have, on the one hand, analysed all agro-environmental policy instruments in place during the 1980s and, on the

other hand, all agro-environmental policy instruments adopted or amended in the 1990s. An agro-environmental policy instrument is any instrument which has among other goals the prevention, the reduction, or the limitation of environmental damage resulting from agricultural practices.[10] I have, however, excluded the registration of pesticides since such an instrument has more to do with the regulation of toxic substances generally, than with agricultural practices *per se*.

For both periods, I have sought to distinguish the approach associated with each agro-environmental policy instrument. Six of the seven approaches listed in Table 1.1 were associated with the policy instruments used in France. I review them briefly. The first is the *educational approach*, that is the goal of the policy instruments is to educate farmers about sustainable agricultural practices. A *positive incentive* approach is one that subsidizes farmers with the purpose of making them adopt given farm practices. The *regulatory* approach, commonly used in environmental policy making in general, involves command and control constraints on farm practices. *Cross-compliance* obliges farmers to participate in an environmental programme to be eligible for the general agricultural support programmes. An *endogenous* approach is an approach whereby the environment can be promoted as an asset helping farmers to improve their economic situation.[11] Farm embellishment, for example, can help farmers to derive some extra revenues from rural tourism. Lastly, the *reformative* approach, certainly the most extreme of the approaches, seeks a redefinition of farming. The proponents of this latter approach are generally unhappy with the productivist model promoted by the

governments of industrialized countries during most of the twentieth century and they often champion models oriented toward enhancing the harmony between agriculture and the land.

In addition to accounting for approaches, I have naturally analysed the policy instruments along the dimensions of comprehensiveness and intrusiveness. Again, comprehensiveness refers to the range of agricultural practices that a policy instrument may cover, while intrusiveness focuses on the degree of change in one or more agricultural practices required by the policy instrument. For example, if a programme can subsidize any one of the practices ranging from nutrient management planning to planting hedgerows along fields, it is more comprehensive than one that is targeted at only one of these practices. Similarly, a policy that imposes severe restrictions on agricultural waste management or that strongly incites an overhaul of dominant farming systems is more intrusive than one that requires a small one-time investment.

Table 4.1 lists all agro-environmental policy instruments in effect at some point during the 1980s, identifies the approach, and ranks them as low, moderate, or high in terms of comprehensiveness and intrusiveness. Table 4.2 does the same but for agro-environmental policy instruments that were adopted or altered during the 1990s. The rest of this section discusses the instruments of each period in turn.

The 1980s

The Comité d'Orientation pour la Réduction de la Pollution des Eaux par les Nitrates (CORPEN) was established in 1984 as a response to the 1980 Hénin report

which identified several agricultural practices as major sources of water pollution. At its creation, the CORPEN was mandated to consult with agricultural interests as well as with interests somewhat associated with agriculture for the purpose of devising voluntary programmes, mostly with educational objectives. The CORPEN's mandate also included the preparation of advice for the Minister of Agriculture and the Minister of the Environment. In the 1980s, the CORPEN was mostly concerned with water pollution arising from nitrates and as a result was not covering a comprehensive range of agricultural practices. Moreover, the programme did not intrude significantly on generally accepted farming methods. Rather, the idea was to help farmers to gradually develop an environmental awareness.

Table 4.1:
Agro-Environmental Policy Instruments in the 1980s

Policy Instrument	Approach	Comprehensiveness	Intrusiveness
CORPEN	educational	low	low
Article 19	incentive	moderate	low
Extensification	incentive	low	low
Classified Infrastructures (*Installations classées)*	regulatory	low	low
Code rural	regulatory	low	low
Mountain/Seashore Policies	regulatory	low	low
Loi relative à la protection de la nature	regulatory	low	low
Land Use Planning	regulatory	low	low

Article 19 was the first agro-environmental policy of what was then the European Community. Following a British demand, Article 19 was included in a revised structural policy, CEE 797/85, which authorized member states to spend for the purpose of encouraging agro-environmental initiatives in designated areas. In 1987, the Community decided to finance out of the guidance section of the European Agricultural Guarantee and Guidance Fund (EAGGF) twenty-five percent of the cost of the projects undertaken under article 19. Article 19 is an incentive measure in that it provides funding for agro-environmental programmes.[12] Prior to the 1992 CAP reform, member-states were devising programmes under article 19 on a voluntary basis. In France, the programmes were decided at the local level and could themselves be simply incentives, or else take on a more reformative approach. The first article 19 programmes in France were authorized only in 1989, and according to observers they were far from reformative.[13] Moreover, article 19 programmes in France were only moderately comprehensive, in that they did not cover the range of agricultural practices they could have covered, and they generally did not intrude much into farming practices.[14]

In an effort to control overproduction and its agricultural budget, the European Community adopted a series of structural measures of extensification between 1988 and 1989. These measures comprised voluntary set-asides for the grain sector, subsidies for the conversion of agricultural land into woodland, and measures encouraging the extensification of beef cattle production.[15] These measures were rather targeted, thus not very comprehensive, and voluntary. On the environmental character of the

extensification measures an interviewee said "perhaps that there was one sentence in the programme that gave it an environmental twist, but globally the objective was clearly the reduction of production."[16] It should be noted that the extensification measures along with other budgetary stabilizers have largely failed to meet this latter objective.[17]

The series of regulations listed in Table 4.1 ranging from the *Loi sur les installations classées* to Land use planning are general policy instruments that contain minor provisions regarding agriculture or the environment. The 1976 *Loi sur les installations classées*, for example, creates minor constraints for the expansion of large hog operations. All other livestock production projects are submitted to a departmental sanitary regulation that is even less constraining.[18] Article 232-2 of the *Code rural* includes punishments for farmers who discharge waste into watercourses resulting in the killing of fish.[19] The mountain and seashore laws[20] as well as the *Loi relative à la protection de la nature* of 1976 constrain farming to the extent that they may require the assessment of agricultural projects in certain areas. Lastly, the land use planning process in France provides for the classification of land for its aesthetic and ecological value and on this basis agricultural practices can be constrained on land thus classified. Writing in 1992, Rainelli, however, notes with respect to land use planning in France, there was a "lack of rigour prevailing in the granting of permissions for installations in protected areas, owing to insufficiently stringent ecological analysis when these areas are defined."[21]

In sum, Table 4.1 shows that agro-environmental regulations in France in the 1980s were covering only a small range of agricultural practices and were never very intrusive. The European Community, mostly concerned with overproduction and budgetary control, had not yet shown much devotion to inciting member states to adopt agro-environmental policies. Thus, France mostly relied on the CORPEN in the 1980s to resolve the agro-environmental problems identified first in the 1970s and further documented in 1980 in the Hénin report. Despite some negotiations, the CORPEN reflects better the preference of the Ministry of Agriculture for voluntarism and education over the preference of the water division of the Ministry of the Environment for an approach that leans more toward regulations.

The 1990s

Contrast this with the 1990s when new intrusive and comprehensive regulations were finally adopted, existing regulations were amended to become more stringent, some programmes began to take a reformative character, and agricultural policy itself was reviewed. The policy instruments used in the 1990s are listed and categorized in Table 4.2. Again, I will discuss these instruments in turn.

The first noticeable change in Table 4.2 is arguably a rather minor one. Reminiscent of the 1980s, the CORPEN adjusted to the 1990s by paying more attention to phosphorous and by developing an expertise on pollution by pesticides, which had been simply excluded from its jurisdiction in the 1980s. The CORPEN has also supported Ferti-Mieux, a voluntary programme established and managed by farmers

through the Association Nationale pour le Développement Agricole (ANDA) and whose aim is to provide "guidance" on the evolution of agricultural practices. Lastly, the CORPEN has, somewhat reluctantly, become involved in the implementation of the Nitrate Directive.[22]

Table 4.2:
New or Amended Agro-Environmental Policy Instruments in the 1990s

Policy Instrument	Approach	Comprehensiveness	Intrusiveness
CORPEN	educational	moderate	low
Nitrate Directive	regulatory	moderate	high
The French Water Policy	regulatory	moderate	high
Installations classées	regulatory	moderate	high
ZES	regulatory	moderate	high
PMPOA	incentive	moderate	high
Landscape Policy	regulatory	high	low
PDD	reformative	high	low
Set-Asides	cross-compliance	low	high
Agri-Environmental Measures	incentive	high	moderate
Rural Development/ Quality Policies	endogenous	high	moderate

The Nitrate directive was adopted by the European Community in 1991 as part of its water policy. The directive required member states to identify "vulnerable zones" in their territory, based on a given threshold of nitrogen concentration. Then member states were given four years to ensure that no more than 170 kg of organic nitrogen per hectare was applied in those vulnerable zones. In addition, member states were required to

produce codes of good practices to specify conditions for manure spreading and to make the application of those codes mandatory in vulnerable zones. The nitrate directive is particularly important in that it prompted the French government to take a series of initiatives to meet the limit on nitrogen application set by the directive.

Partly in this vein, the French government revised its water policy in 1992. The main element of the reform is no doubt the definition of a procedure for the elaboration of management plans (Schémas directeurs d'aménagement et de gestion des eaux) for the six French watersheds. But what may be more significant for agriculture is the 1993 negotiations to submit agriculture to the water agency system of royalties and aid. The Water Act of 1964 created a system whereby watershed-based agencies were mandated to collect a royalty from those who use or pollute water and to reinvest the money into water quality improvement projects.[23] But agriculture had been exempted from this system.

In 1992 and 1995 the reach of the *Loi sur les installations classées* was extended to cover several types of livestock operations as well as smaller operations not previously covered by the law. As a result, a larger number of farms in the 1990s were either required to declare projects in accordance with a general regulation[24] or were required to go through a process of authorization that comprises public scrutiny.[25] The *Zones d'exédent structurel* (ZES) were created in 1993 to impose moratoria on the larger livestock operations in *cantons* that produce in excess of 170 kg of nitrogen per hectare.

In addition, the adoption of new technologies and practices to reduce the excess of nutrients is encouraged or mandatory for certain operations in those zones.

The regulations ranging from the nitrate directive to the Installations classées are moderately comprehensive. They could be more comprehensive in that they are for the most part only marginally concerned with crop operations. Nevertheless, they do cover a moderately important range of livestock farming practices. If the resistance of farmers is any indication, it can be argued that those regulations are intrusive. They impose constraints on farmers for their expansion projects while there was almost none in the 1980s. In addition, farmers who do not follow more sustainable practices face the risk of paying royalties to the water agencies and other penalties.

The Landscape policy[26] is a policy that is not very intrusive into agricultural practices in that it concerns agriculture only marginally, most notably hedgerows.[27] It is more or less an extension of the seashore and mountain acts to any landscape of a certain aesthetic and ecological value.

Accompanying these various regulations is the Programme de maîtrise des pollutions d'origine agricole (PMPOA) adopted in 1993. The objective of the programme is to provide farmers with financial assistance in conforming with the various regulations that I have just described. More specifically, farmers who choose to participate in the programme are required to produce an environmental assessment of their farm called DEXEL. The DEXEL are conducted by technicians attached to the Directions Départementales de l'Agriculture et des Forêts. Following the assessment, a

contract on the work to be undertaken is established between the farmer, the water agency, and the state. The cost of the programme is shared equally among these three actors. And upon the completion of the work, the farmer is no longer considered as a polluter and thereby does not have to pay a royalty to a water agency.

A component of the PMPOA that has been more controversial is the schedule whereby farmers become eligible. The PMPOA is a seven-year programme that integrates large farmers first. For example, in 1994 hog producers raising more than 1000 pigs were eligible to receive aid under the programme while those raising over 450 pigs will have to wait until the year 2001. The budgetary cost of an incentive programme is a good indicator of its intrusiveness. In 1993, the government forecasted that the programme would cost seven billion FF. In the spring of 1997, between 2.5 and 2.7 billion FF had been spent in Brittany alone.[28]

The Plans de Développement Durable (PDD), initiated in 1991, are distinguished from the policy instruments just discussed in that they take on a reformative approach. Through contracts between the state and volunteering individual farmers, the PDD are aimed at reorienting intensive farming systems toward integrating the functions of production, environmental management, and rural participation. In sharp contrast with the logic of intensive farming, the PDD follows a logic of diversification of farming activities. The programme is, therefore, naturally comprehensive, yet it is not very intrusive. In 1996, 23.5 million FF were mobilized for the programme,[29] an amount that pales in comparison to the anticipated one billion FF per year for the PMPOA. Since the

CAP reform of 1992, the PDD are one of the French national Agri-environmental measures.[30]

In 1992, the CAP was indeed reformed to allow agricultural production to be more responsive to market signals.[31] Moreover, set asides became mandatory to further reduce production. That is, farmers who do not comply lose their eligibility for the direct payments offered by the EU in return for accepting lower prices. No need to say that cross-compliance was strongly opposed by French farmers.

A set of measures called Agri-environmental measures accompanied the CAP reform. They are any measures that member states are required to adopt that meet seven objectives ranging from input reduction to landscape maintenance for leisure.[32] France implemented the Agri-environmental measures with three national programmes and a series of regional and local operations. First was the PDD discussed above. Second is a programme to maintain extensive grassland (prime à l'herbe). The programme follows an incentive approach in that it provides payments for farmers who accept not to plow grassland but to maintain it notably by limiting livestock holdings.[33] Similarly, organic farming is encouraged through financial incentives in a third national programme. The regional operations are measures defined by regions ranging from input reduction and fertilization planning to bio-diversity protection.[34] The local operations for their part are basically the continuation of article 19 on a significantly larger scale. And there are few indications that the local and regional operations are more reformative than the former article 19 operations. Groups with a reformative agenda might have become more

involved in the process of designing those operations, but in case of conflicts between the various participants the *préfet de région* provides arbitration and in the words of an interviewee "the préfet is always on the side of the strongest, thus never on the side of reformers."[35]

In contrast with article 19 and the extensification measures of the 1980s, the Agri-environmental measures are financed at 50 percent out of the *Guarantee* section of EAGGF. Thus, they are no longer part of the structural policy but are integrated within the main framework of the agricultural policy. This increase in secured resources and the range of the objectives of the Agri-environmental measures indicate higher comprehensiveness as well as higher intrusiveness. The anticipated budget of the Agri-environmental measures for France for the 1993-1996 period is 4905.6 MFF, still a small amount considering that it represents only roughly five percent of EAGGF.[36] In addition, the resources are unequally distributed between the French programmes, with 75 percent of the Community appropriations allocated to maintaining extensive grassland, hence the moderate ranking for the intrusiveness of the Agri-environmental measures.

To these policy instruments, I have added rural development and quality policies in Table 4.2. These instruments are not primarily concerned with the environment, but in the 1990s the environment has become a relatively important element of these policies. That is, the environment became increasingly identified as an asset that can contribute to the development of less-favoured areas or that may add to the value of agricultural products. The brand name "fermier," for example, associates products with sustainable

modes of agricultural production. The European structural and rural development programmes, notably LEADER, feature the preservation of the environment among its main objectives.[37] Out of a European conference on rural development held in Cork, Ireland, in 1996, came a declaration that rural development "must be based on an integrated approach, encompassing (...) agricultural adjustment and development, economic diversification (...), the management of natural resources, the enhancement of environmental functions, and the promotion of culture, tourism and recreation."[38] In 1995, the Community had approved 18 programmes of rural development in France under LEADER II worth a contribution of 184 907 000 ECU.[39]

In brief, rather intrusive and moderately comprehensive regulations and programmes have been adopted in France since the beginning of the 1990s. These policies stand in sharp contrast with the 1980s when no agro-environmental regulation or programme was intrusive and very few were comprehensive. In addition, France in the 1990s has begun experimenting with reformative and endogenous approaches promising to guide agriculture away from the model valued in this country since the 1950s. As Boisson and Buller suggest "these various trends point to profound changes in rural France."[40] More specifically, this signifies a major policy change between a period during which agricultural pollution was more tolerated and farmers more trusted as environmental stewards and a period during which agricultural pollution became regulated by the state like any other pollution.[41] These changes were not achieved,

however, without important financial benefits going to farmers, notably through the PMPOA.

Explaining Policy Change

My explanation of this agro-environmental policy change in France focuses on the evolution of policy communities and policy networks. Such an approach to policy analysis has gained increasing acceptance, particularly in the context of Europeanization, as it captures aspects of multi-level governance.[42] Marks and his colleagues, as well as others, argue that the EU now possesses institutional attributes allowing some European governance relatively free from national executives.[43] Naturally, several of these institutional attributes are located within the European Commission which is a critical actor in policy initiation, an important actor in implementation, a central actor in international negotiations, and a subtle but powerful decision making actor. Consistent with this view, I argue that advances in Europeanization have led to important changes in the membership of agro-environmental policy communities and in the structure of the policy networks, thereby making possible policy changes that appeared unlikely for France in the early 1980s.

Policy Community Membership

Analysts of policy communities often distinguish between an "attentive public" interested in given policy problems but who do not directly participate in policy making and a "sub-government" made up of policy participants.[44] Scharpf also distinguishes between "a subset of primary policy actors (...) directly and necessarily participating in

the making of policy choices and all other actors that may be able to influence the choices of these primary actors."[45] The distinction between policy advocates and policy participants appears particularly appropriate for the study of contemporary democracies where corporate actors, at least, often take on a specific policy making role.[46] Naturally, the distinction is further relevant for the study of systems of multi-level governance, particularly the European Union, where national executives can no longer act unilaterally in imposing their policy preferences in many sectors.[47]

Scharpf argues that variations in the sub-governments, what he calls the "actor constellations," lead to different understandings of the object of negotiation, that, in turn, produce different policy outcomes.[48] Contrast, for example, two agro-environmental policy communities: one where a Ministry of the Environment is a participant along with a Ministry of Agriculture, and one where the sub-government is only composed of agricultural interests, environmental interests being relegated to the attentive public. In the first policy community the problem of agricultural pollution is likely to be defined as a problem of distribution of the costs and benefits of agricultural practices with the possible outcome of certain practices being severely constrained by intrusive regulations. Scharpf argues that such a "distributive bargain" may even include side payments to compensate a veto player.[49] In the second policy community, the problem of agricultural pollution is more likely to be understood within the framework of wealth generation for the agricultural sector. Scharpf calls this a "problem solving bargain."[50] In this latter bargain, the environment will be addressed only to the extent that it might have an

impact on farmers' income one way or another. For example, environmental interests, or other members of the attentive public, may be effective at affecting consumption patterns, and eventually the preferences of the participants in policy-making. The differences between these two fictional policy communities are particularly relevant because agro-environmental policy making in France appears to have shifted from a narrow understanding of agricultural pollution centred on wealth creation toward a broader understanding that also accounts for distributive justice.

The CORPEN is presented as the result of an agreement between the Ministry of Agriculture and the Ministry of the Environment. But the educational and non-intrusive approach of the CORPEN hints that it might be better understood as the result of a bargain focussed on the creation of wealth. In fact, the Ministry of the Environment was rather poor in resources to advance a strong case for regulation, an approach most notably supported by the water division. Overall, the Ministry of the Environment had little expertise in agriculture at the outset of the 1980s because at its creation, in 1971, the Ministry was attached to the Ministry of Equipment and staffed with *Ingénieurs des Ponts et Chaussées*.[51] The water division of the Ministry of the Environment, as well as the water agencies, have had little opportunities to develop an expertise in agriculture prior to the 1990s because the sector was not subjected to the environmental regime set by the water act of 1964. In addition, prior to the 1990s, the Ministry did not have regional branches and, therefore, had to rely on the external services of other ministries to enforce its regulations, most notably on the Directions départementales de

l'agriculture et la forêt for agricultural matters, outside those regarding classified infrastructures.[52] Talking about the CORPEN, an official of the ministry said "we rarely win when arbitration is necessary; so we have to find solutions that avoid confrontation, otherwise we do not move forward."[53] The Ministry of the Environment in the 1980s, therefore, had little choice but to cooperate with the Agriculture Ministry on educating farmers about the advantage of "reasoning" their use of fertilizers. In short, deprived of a capacity to negotiate, it appears clear that in the 1980s some officials of the Ministry of the Environment chose, if reluctantly, to endorse the strategic position of farmers and of the Ministry of Agriculture. Certainly that the water division, if not most of the Ministry of the Environment, was relegated to the attentive public during this decade, thus outside the constellation of actors that participate in policy formulation.

The strategic position of the water division began to make inroads within the Ministry of the Environment in the early 1990s as the division began to be involved in policy participation and as the Ministry became stronger.[54] The inclusion of the environment into the Single European Act as well as advances of the Community water policy at the end of the 1980s have enhanced the position of this division of the Ministry of the Environment in the policy community. A former Secretary of the Environment sympathetic to the strategic position of the water division said:

> "the Ministry uses Europe against other French ministries except when the Prime Minister can accept its point of view. But, the environmental battle in France is conducted with the help of Europe ... we always pass by

> Brussels to win in Paris simply because the environmental point of view is more important for Brussels than for Paris."[55]

In fact, in the early 1990s, the Directorate General for the Environment (DGXI) of the European Commission began to take on a more pro-active role in the area of water policy by initiating "discharge" directives, including the nitrate directive.[56] And with a Socialist Prime Minister rather favourable to the point of view of the environment, agricultural interests were relegated, at best, to the attentive public during the negotiation of the nitrate directive. When asked whether agricultural interests were consulted on the nitrate directive, an interviewee said "absolutely not, the directive was imposed on farmers."[57] Thus, the nitrate directive was largely negotiated among French and Community actors (along with actors of other member states) whose views were converging on the regulatory approach. In sharp contrast with the negotiation over the CORPEN, the nitrate directive bargain was one of distribution of the costs and benefits of agricultural practices, with little regard for the creation of wealth.

The negotiation of the French measures required to meet the obligations set by the nitrate directive, however, did not take place without farmers. In 1993, the Right returned to power in the National Assembly. Perhaps even more important, French farmers were awakened to the necessity of reaffirming their power after the reform of the CAP and Blair House I,[58] both adopted despite their opposition. These steps toward agricultural policy reform appeared indeed outrageous to French farmers who believed they were their victims more than any other European farmers.[59] Consequently, farmers

from all around France marched massively on Paris in 1993. And in the words of a civil servant occupying important functions within the French state "governments in France fear nothing as much as a farmer *jacquerie.*"[60] These events helped ensure the inclusion of agricultural interests, most notably the FNSEA, in the sub-government of the policy community for the negotiations of national measures aimed at fulfilling French obligations on the nitrate directive. By 1993 the sub-government of the agro-environmental policy community was characterized by a strengthened Ministry of the Environment, notably its water division, and powerful agricultural actors. In turn, the divergent views held by these policy making actors necessitated compensation (PMPOA) for any loss of farm income if the distributive bargain was to continue.

As I have shown, the Agri-Environmental measures and the rural policy are often less the result of negotiations about farming practices harmful to the environment than the result of negotiations on the nature of farming. Some analysts have argued that between the 1960s and the 1980s, ideas or paradigms about agriculture have evolved from a logic of development toward a logic of markets, and even toward a logic of ruralism and alternative agriculture.[61] Perhaps because of a lack of interest in such issues the Ministry of the Environment was positioned in the attentive public for the negotiations of the Agri-environmental measures and rural policy.[62] Nevertheless, the composition of the policy community negotiating the "nature" of agriculture was unusual.

One of the important actors in this policy community is the European Commission and more particularly the Directorate General for Agriculture (DGVI). We saw in Chapter Three that the Commission, plagued with problems of over production, released a green paper in 1985 in which it was suggested that agricultural production should not unduly be supported and that European aids should be redirected to encourage a type of agriculture that is more respectful of the environment and of rural communities.[63] This position has been repeated several times since 1985.[64] Naturally, the productivist FNSEA vigorously opposes the view of the Commission. But, this view did find support in France, notably within the Ministry of Finance and even among some specialized farm groups.[65] And it was argued that such support was instrumental in reforming the CAP in 1992 along the lines proposed by the Commission.[66]

In addition, an increasing number of farmers dissatisfied with the FNSEA have begun to support general farm groups that condemn policies encouraging a productivist agriculture. These groups are generally supportive of an agriculture spread out across the country and characterized by a large number of smaller farms. Several of these groups, like the Centre d'étude pour un développement agricole plus autonome (CEDAPA), are proponents of an alternative form of agriculture that is more respectful of nature. An indication of the increasing strength of such groups is the 20.1 percent score of the Confédération paysanne in the 1995 elections for the agricultural chambers.[67] Delorme, however, argues that those groups have few supporters among policy makers.[68]

Nevertheless, some divisions of the Ministry of Agriculture are favourable to policy proposals more or less in line with ruralist ideas. Comparing the productivist Direction de la production et des échanges with the Direction de l'espace rural et de la forêt (DERF), an interviewee said of the latter "they are the ecologists of the ministry."[69] Another interviewee said "the PDD have their origin within the DERF supported by the socialist government of the early 1990s."[70] Even if groups such as the Confédération paysanne have rarely been included as members of the sub-government of the agricultural policy community, the support of the public that they were able to obtain has certainly influenced the definition of the strategic positions of policy participants such as the DERF, and most notably the European Commission.[71]

Policy Network Structures

Thus far, I have demonstrated that the 1980s and the 1990s differ with regard to the role of European institutions in the water policy community and in the agricultural policy community. Differences between the two decades were also found in the membership of the attentive public. These differences were important in explaining the shift between an understanding of the problem of agricultural pollution in terms of wealth creation toward a broader understanding encompassing the distribution of the costs and benefits of farming practices. In this section, I will show that the evolution in the structure of policy networks was equally important, particularly with respect to the emergence of what Scharpf calls veto players who have a determinant impact on policy outputs.[72] I argue that the bipartite corporatist relationship between the FNSEA and the

Ministry of Agriculture has evolved into a multipartite relationship, making the Ministry of the Environment a veto player on water related issues and the European Commission on questions of agricultural reform.

Since the 1960s, the FNSEA has enjoyed a particular corporatist relationship with the Ministry of Agriculture. The FNSEA has important responsibilities for the implementation of the French agricultural policy and in return gets to participate in policy-making.[73] Fouilleux argues that this specific relationship, known as *cogestion*, has endured even during the CAP reform strongly opposed by the FNSEA.[74] It is under this bipartite corporatist arrangement that the educational approach of the CORPEN came to prevail in dealing with agro-environmental problems in the 1980s.

As mentioned above, however, the Ministry of the Environment, along with its water division, has clearly become a policy participant in the early 1990s, notably because of France's obligations arising out of the nitrate directive. Nevertheless, an official of the Environment Ministry said that the "approach in France is based on the recognition that there is a variety of interests (...) and accordingly those interests are put around a table to find common solutions instead of allowing unilateral action."[75] More likely, the Ministry of the Environment was not able to ignore indefinitely a tradition of cogestion, by then almost 30 years old. Therefore, for the post 1992 period, a multipartite corporatist network was established between the FNSEA, the Ministry of Agriculture, and the Ministry of the Environment to draft the details of a water policy for agriculture.

In 1993, the negotiations began on the integration of agriculture within the system of water agencies. The negotiations proved difficult for participants had conflicting views on the matter. The FNSEA could not accept that agriculture be regulated as any other sector. In the words of Jean Salmon, the president of the Environment Commission at the FNSEA, "the water agencies had difficulty thinking outside the rigid scheme that applies to industrial and municipal pollution which has justified their existence since their creation in 1964."[76] In contrast, an interviewee argued that the FNSEA was in the negotiations not so much to become part of the water agency system but to receive financial assistance to help farmers comply with the obligations created by the nitrate directive and the 1992 regulation on designated buildings. In his words: "farmers began making calculations and they realized that the nitrate directive and the new classified infrastructures were to cost them a lot of money."[77]

An agreement was finally reached at the end of 1993 to integrate farmers into the system of water agencies. The FNSEA agreed to do so under specific provisos, however, notably regarding the schedule and the conditions under which farmers are to be charged a royalty, and a substantial subsidy. The PMPOA comprises financial assistance from the water agencies, which also apply to other sectors, in addition to important state subsidies. As Scharpf argues, side payments are necessary to prevent a player from exercising his or her veto.[78]

One simply cannot say, however, that the FNSEA was a veto player during the CAP reform.[79] Nevertheless, the Agri-environmental measures and rural policy can be

understood as the result of the "consensual" policy style that has come to characterize European policy-making.[80] In fact, this style has never been problematic because the French Minister of Agriculture and the FNSEA never opposed the Agri-environmental measures or the European rural policy, as long as their objective was not to turn farmers into "gardeners of nature." In a recent intervention, the French Agriculture Minister expressed, once again, his support for these policies.[81] It is, however, fair to argue that the main preoccupation of the principal French agricultural actors was elsewhere. When the national programmes of implementation of the Agri-environmental measures were devised by the Ministry of Agriculture in 1993, some concertation was organized with groups like the FNSEA, the Centre National des Jeunes Agriculteurs (CNJA), the Confédération française de la coopération agricole (CFCA), and the Assemblée permanente des chambres d'agriculture (APCA). As an official of the Ministry of Agriculture said, "they came to the meeting in November and they simply gave us their blessing, a sign that they were not overwhelmingly interested (...). If they had believed that it was an important policy, they would have asked us for time to study the proposal and we would have had other meetings."[82]

Therefore, the crucial concertation takes place between the Commission and the Ministry of Agriculture, notably the Direction de l'espace rural et de la forêt (DERF) and the Direction des exploitations, de la politique sociale et de l'emploi (DEPSE), both dealing with the Agri-environmental measures and the rural policy. As an employee of the DEPSE explained, the Commission, as an equal financial partner, is co responsible

for the implementation of the Agri-environmental measures: "no decision can be taken in Paris without Brussels agreeing, we cannot make one step without the Commission."[83] This situation has caused serious administrative difficulties. But beyond those difficulties, the structure of the relationship between the Commission and the Ministry of Agriculture has influenced the scope of some national, regional, and local agro-environmental measures.

Summary

Between the 1980s and the 1990s, agro-environmental policies in France have changed in approach, comprehensiveness, and intrusiveness. They appear to have become more encompassing relying on approaches concerned with the distribution of the costs and benefits of agricultural practices in addition to approaches more protective of the prosperity of the agricultural sector. Naturally, this change follows important increases in agricultural pollution. But I have argued that the change is also explained by two interdependent factors: the evolution of the membership of the agro-environmental policy communities and changes in the structure of the policy networks.

French agricultural interests were left in the attentive public when the Ministry of the Environment, in concert with the European institutions, adopted an intrusive regulatory approach to problems of agricultural pollution. The legacy of these regulations left the Ministry of the Environment well positioned, even when agricultural interests were brought back into the sub-government after the Right returned to power in 1993. A multipartite corporatist network of divergent interests has replaced the bipartite

corporatist arrangement that has characterized the relationship between the state and agriculture in France since the 1960s. As Scharpf points out, under such arrangement side payments are necessary for the making of decisions. These side payments were made to farmers in the form of the PMPOA.

With the Commission playing an important role in agricultural policy, multipartite corporatism describes best the policy network structures that deals even with matters that are primarily of interest to farmers. Through this network, the Commission was able to give agricultural policy an environmental character. None the less, the Commission probably remains too dependent on European agricultural interests to impose a complete overhaul of agricultural policy along environmentalist lines.

Conclusion

In Chapter Seven, I provide a systematic analysis of the policy making performance of France. Suffice it to say at this point that at least since the early 1980s, France has had an agro-environmental policy, that the policy was made significantly more intrusive and comprehensive in the early 1990s, and that it has come to rely increasingly on instruments that belong to a mix of approaches. As argued in Chapter Three, such policy changes are indicative of a high level of policy making performance.

Quite clearly, the European Union is responsible for much of the change, and as such, it has contributed to the French performance. The corporatist setting prevalent in the agricultural sector, however, mediated the pressure for change in a manner that made reliance on a mix of approaches a necessary condition, if any agreement was to be

reached among the participants in policy formulation. Therefore, the French performance is best explained by the interaction of two institutional arrangements: the multi-level governance setting of the European Union and domestic corporatism.

End Notes

1. John Ruggie, "International Regimes, Transactions, and Change: Embedded Liberalism in the Postwar Economic Order", *International Organization*, 36 (1982), 379-415.

2. William D. Coleman, "From Protected Development to Market Liberalism: Paradigm Change in Agriculture," *Journal of European Public Policy*, 5: 4 (1998), 632-651.

3. Eve Fouilleux, "Réforme de la Pac, accord au Gatt: quelles incidences sur les transferts financiers entre les Douze?", *Economie & Prévision*, 117-118 (1995), 129-141.

4. See also Pierre Rainelli, "Intensive Livestock Production in France and its Effects on Water Quality in Brittany" in M.D. Young (ed), *Towards Sustainable Agricultural Development* (London: Belhaven Press, 1992). Publication de l'Assemblée Permanente des Chambres d'Agriculture, "Concentration très rapide de l'agriculture française depuis 1989", *Chambres d'Agriculture*, 853 (mars 1997). "Un tiers des ressources en eau potable sous la menace des nitrates", *Le Monde* (10 juin 1997), 13.

5. The Blair House agreement effectively ended the dispute over the inclusion of agriculture into the world trade regime established by successive General Agreements on Tarriffs and Trade (GATT).

6. William D. Coleman, Michael M. Atkinson and Éric Montpetit, "Against the Odds: Retrenchment in Agriculture in France and the United States", *World Politics*, 49 (1997), 453-481.

7. See Eve Fouilleux, *La cogestion à la française à l'épreuve de l'Europe: l'exemple de la réforme de la Politique Agricole Commune*, (Grenoble: Centre de Recherche sur le Politique, l'Administration et le Territoire, 1996).

8. Pierre Muller, *Le technocrate et le paysan*, (Paris: Éditions ouvrières, 1984). On corporatism in France see also Pierre Coulomb, "Les conférences annuelles entre corporatisme et populisme" in Pierre Coulomb, Hélène Delorme, Bertrand Hervieu, Marcel Jollivet and Philippe Lacombe, (eds), *Les agriculteurs et la politique*, (Paris: Presses de la Fondation Nationale des Science Politiques, 1990).

9. Pierre Lascoumes, *L'éco-pouvoir: environnement et politiques*, (Paris: Édition la découverte, 1994).

10. For the sake of simplification I have excluded government sponsored research which has increasingly sought to address agro-environmental problems.

11. Jan Douwe van der Ploeg and Gerrit van Dijk, (eds), *Beyond Modernization: The Impact of Endogenous Rural Development*, (Assen: Van Gorcum, 1995).

12. David Baldock and Philip Lowe, "The Development of European Agri-environmental Policy" in Martin Whitby, (ed), *The European Environment and CAP Reform: Policies and Prospects for Conservation*, (Wallingford: Cab international, 1996), 8-25.

13. Jean-Paul Billaud, "Article 19: Une gestion agricole au nom de l'environnement?," *Économie Rurale*, 208-209 (1992).

14. An official of the Ministry of agriculture in Paris said that between 1989 and 1992 "the programmes chosen were located in zones where the environmental problems were rather easy to solve such as le Marrais Poitevin, les Vercores... so, small sites where everybody, even farmers, could only admit that the environment had significantly been altered... it is true that the environmental impact of this first phase was nil; the few hectares better maintained represent nothing in relation to the total farm land in France." Interview, May 1997. See also Billaud, "Article 19."

15. The extensification of beef cattle production was achieved by compensating producers who accepted to reduce their herd or by compensating farmers who accepted to produce the same number of cattle but on expanded land.

16. Interview, May 1997.

17. Wyn P. Grant, "The Limits of the Common Agricultural Policy Reform and the Option of Renationalisation," *Journal of European Public Policy*, 2 (1995), 3.

18. Farms are required to have a system to collect most of their waste into a three months-capacity storage facility.

19. Lascoumes, *L'éco-pouvoir*, 106.

20. *Loi du 9 janvier 1985 relative au développement et à la protection de la montagne* and *Loi du 8 janvier 1986 relative à l'aménagement, la protection et la mise en valeur du littoral.*

21. Rainelli, "Intensive Livestock Production in France and its Effects on Water Quality in Brittany," 134.

22. *L'Écho des Nitrates et des Phytos*, No. 110, spécial Salon de l'Agriculture, (février-mars 1997).

23. See Richard Lotspeich, "Comparative Environmental Policy: Market-Type Instruments in Industrialized Capitalist Countries," *Policy Studies Journal*, 26:1 (1998), 89-90.

24. The general regulation comprises construction and manure application set backs from neighbours and water bodies. The farms that are subjected to the declaration regime are those of between 50 and 200 beef cattle, of between 40 and 80 dairy cows, of between 50 and 450 pigs, and those of between 5000 and 20 000 poultry.

25. The farms that are subjected to the authorization regime are those of over 200 beef cattle, of over 80 dairy cows, of over 450 pigs, and those of over 20 000 poultry.

26. *Loi du 8 janiver 1993 sur la protection et la mise en valeur des paysages.*

27. Rousso Anny, "Le droit du paysage: un nouveau droit pour une nouvelle politique", *Courrier de l'environnement de l'INRA*, no. 26 (décembre 1995). A guidance law for land use planning was also adopted in 1995. Just like the landscape policy, however, it does not constitute a major departure from the past as far as agriculture is concerned. Arguably the same could be said of the 1995 *Loi sur le renforcement de la protection de l'environnement.*

28. Interview, June 1997. Farmers complain that the state's forecast has underestimated what the PMPOA would cost. As a result the state and water agencies have difficulties fulfilling their commitments to the programme.

29. "Plan de développement durable: le coup d'envoi est donné", *Bima*, no. 1449 (1996). On the WWW at http://www.agriculture.gouv.fr/mapa"agriweb/bima/1449/49dev1.stm.

30. Michel Ledru (au nom du Conseil Économique et Social), "L'espace rural entre protection et contraintes," *Journal officiel de la République française: Avis et Rapports du Conseil Économique et Social*, Paris, (1994), 118.

31. Coleman, Atkinson and Montpetit, "Against the Odds."

32. European Commission, *CAP Working Notes: Agriculture and the Environment (Special Issue)*, (Brussels: European Commission, 1997), 24-25.

33. This programme is similar to the previous extensification measures. Reforestation has become an accompanying measure of the CAP in its own right.

34. The term regional operation is not officially used. I use it following Jean-Marie Boisson and Henry Buller, "France," in Whitby, *The European Environment and CAP Reform*, 124.

35. Interview, May 1997.

36. "Les mesures agri-environnement," *Entraid'Ouest*, (Supplement, Juin 1997), 5.

37. These programmes are far more complex than my discussion may imply. They notably touch on aspects that are not relevent to agriculture or the environment. A full understanding of those instruments is far beyond the scope of this dissertation. I nonetheless integrated them, if only partially, in my analysis in an effort to include all policy instruments that fit the definition of agro-environmental policy instrument that I have adopted.

38. *The Cork Declaration - A Living Countryside*, (November 1996). On the WWW at http://europa.eu.int/en/comm/dg06/new/cork.htm.

39. http://europa.eu.int/en/comm/dg06/rur/region.htm. The FNSEA also manages the Fonds de développement rural.

40. Boisson and Buller, "France," 130.

41. Arguing that policy has changed is different from arguing that the new regulations, the PMPOA, and other novel programmes were successful or will be successful in changing agricultural practices. Observers often note implementation problems and lax in compliance. An official with a chambre d'agriculture said "the PMPOA is an eternal problem of implementation. We are done responding to a problem and another one comes up right away." On compliance the same interviewee said that "there are roughly 2000 hog producers who played stupid in Brittany. That is they "forgot" that they needed to declare or ask for authorization to expand." (Interview, June 1997). On the PMPOA another interviewee said that "farmers take advantage of the programme to undertake work on their farm that allows them to expand and thereby increase their potential for pollution in the long term." (Interview, May 1997).

42. John Peterson, "Policy Networks and European Union Policy Making: A Reply to Kassim," *West European Politics*, 18: 1 (1995), 389-407; John Peterson, "States, Societies and the European Union," *West European Politics*, 20: 4 (1997), 1-23; Beate Kohler-Koch, "Catching up with Change: The Transformation of Governance in the European Union," *Journal of European Public Policy*, 3:3 (1996), 359-380; William D. Coleman, and Anthony Perl, "Internationalizing Policy Environments and Policy Network Analysis," *Political Studies*, (forthcoming); James Caporaso, Maria Green Cowles, and Thomas Risse, (eds), *Europeanization and Domestic Change*, (forthcoming).

43. Gary Marks, Liesbet Hooghe, and Kermit Blank, "European Integration from the 1980s: State-Centric v. Multi-level Governance", *Journal of Common Market Studies*,

34: 3 (1996), 341-378; Thomas Risse-Kappen, "Exploring the Nature of the Beast: International Relations Theory and Comparative Policy Analysis Meet the European Union," *Journal of Common Market Studies*, 34: 1 (1996), 53-80.

44. William D. Coleman and Grace Skogstad, (eds), *Policy Communities & Public Policy in Canada: A Structural Approach*, (Mississauga: Copp Clark Pitman Ltd., 1990).

45. Fritz W. Scharpf, *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*, (Boulder: Westview Press, 1997), 71.

46. See Charles Lindblom, *Politics and Markets*, (New York: Basic Books: 1977). The literature on corporatism is also insightful on this point. See Peter J. Williamson, *Corporatism in Perspective: An Introductory Guide to Corporatist Theory*, (London: Sage Publications, 1989).

47. Coleman and Perl, "Internationalizing Policy Environments and Policy Network Analysis."

48. Scharpf, *Games Real Actors Play*, 124-135.

49. Scharpf, *Games Real Actors Play*, 127.

50. Scharpf, *Games Real Actors Play*, 130.

51. École Nationale d'Administration (sous la direction de Lucien Chabasson), *L'aménagement de l'espace rural: Tome II*, (ENA, 1994), 672.

52. Lascoumes, *L'éco-pouvoir*, 193.

53. Interview, May 1997.

54. On this later point see Boisson and Buller, "France," 130.

55. Interview, June 1997.

56. Bernard Kaczmarek, "La politique communautaire de l'eau," *Aménagement et nature*, (mars, 1997).

57. Interview, May 1997.

58. Blair House I is the first GATT agreement on the liberalization of agriculture. It was followed a few months later by Blair House II which revisited some sections of Blair House I deemed too liberalizing by several farm groups.

59. See Fouilleux, "Réforme de la Pac, accord au Gatt," 129-141.

60. Interview, May 1997. A *jaquerie* is a violent farm protest.

61. Coleman, "From Protected Development to Market Liberalism"; Gilles Allaire, "Le modèle de développement agricole des années 60 confronté aux logiques marchandes" in Gilles Allaire and Robert Boyer, (eds), *La grande transformation de l'agriculture: lectures conventionnalistes et régulationnistes*, (Paris: INRA-Économica, 1995). On the ruralist-alternative school of thought see Hélène Delorme, "French Agricultural Policy Objectives: Historical Context and Current Issues" in Rasmus Kjeldahl and Michael Tracy, (eds), *Renationalisation of the Common Agricultural Policy?*, (Copenhagen: Institute of Agricultural Economics, 1994), 49-50.

62. Other causes however can be evoked, notably a lack of resources, or even the sectoral segmentation of policy-making in the European Union. On this latter cause see Guy B. Peters, "Escaping the Joint-Decision Trap: Repetition and Sectoral Politics in the EU," *West European Politics*, 20: 2 (1997), 22-36.

63. European Commission, *Perspectives for the Common Agricultural Policy*, COM (85) 333, (Luxembourg: Office for Official Publications of the European Communities, 1985).

64. For a recent restatement see the 1997 proposal of the Commission for a new reform of the CAP.

65. Fouilleux, *La cogestion à la française à l'épreuve de l'Europe*, 75 and 64.

66. Coleman, Atkinson and Montpetit, "Against the Odds," 453-481.

67. Bertrand Hervieu, *Les Agriculteurs*, (Paris: Presses Universitaires de France, 1996), 85-87.

68. Delorme, "French Agricultural Policy Objectives, 49.

69. Interview, May 1997.

70. Interview, May 1997.

71. Members of the Groupe de Bruges, a ruralist think-thank active on the European scene, were even participants at the Cork Conference convened by the Commission while no one from the FNSEA participated. Moreover, a ruralist group, the European Peasant Confederation, competes with the COPA, a more traditional farm group, at the European level.

72. Scharpf, *Games Real Actors Play*, 112.

73. Muller, *Le technocrate et le paysan*; John T.S. Keeler, *The Politics of Neocorporatism in France: Farmers, the State, and Agricultural Policy-making in the Fifth Republic*, (Oxford: Oxford University Press, 1987).

74. Fouilleux, *La cogestion à la française à l'épreuve de l'Europe*, 89.

75. Interview, May 1997.

76. My translation of Jean Salmon, "Environnement et élevage," *L'information agricole*, no. 683 (novembre 1995), 17.

77. Interview, June 1997.

78. Scharpf, *Games Real Actors Play*, 127.

79. Although it can be argued that side payments were part of the deal. See Fouilleux, "Réforme de la Pac, accord au Gatt," 129-141.

80. Peterson, "States, Societies and the European Union," 11.

81. Intervention of Louis Le Pensec, Newcastle, May 12, 1998. On the WWW at http://www.agriculture.gouv.fr/mapa/agriweb/actualite/disc12051998.stm.

82. Interview, May 1997.

83. Interview, May 1997.

Chapter Five

The United States: Explaining Decentralized Policy Change

One might argue that the United States, more than France, is institutionally predisposed to policy change. The division of powers in the US multiplies the number of locations where policy windows can open.[1] The separation of powers for its part affects the stability of the alliances among policy makers. Lastly, the relationship between the state and private interest groups is not as institutionalized as in France, thereby allowing large variations in the influence of civil society actors over time and issues.[2] And agro-environmental policy change in the US, indeed, occurred, but it was not as profound as in France.

Moreover, the change was not as uniform as in France because, for the most part, it took place at the sub-national level. American states took it upon themselves to impose restrictions of varying severity on farming practices in the face of timid federal regulations. To an extent, this observation is counter intuitive because of the alleged importance of Congress in the sectors of agricultural[3] and environmental policy, and

because of the capacity of the United States Environmental Protection Agency (EPA) in regulating powerful industries.[4] A central objective of this chapter will therefore be to make sense of the relative absence of change in the federal agro-environmental interventions.

Examining the interaction between the membership of the policy communities and the structure of the policy networks, I have observed that the strength of the United States Department of Agriculture prevents EPA from adopting the same approach with agriculture as with other industries. In contrast, state level water protection agencies are well positioned to pressure state legislatures. These are often receptive about ideas for more stringent regulations because of a number of publicized environmental disasters related to modern agricultural practices.

The organisation of this chapter is similar to the one on France. I will first discuss the various regulations in place at the federal and at the state level. Second, I will provide an account of policy making that sheds light on the observed decentralized policy change. Lastly, I will conclude on some implications for policy making performance.

Decentralized Policy Change

Looking at the evolution of agro-environmental policy instruments over two decades is more complex in the US than it was for France. As the title of this section might indicate, an analysis of agro-environmental policy instruments in the US must account for state policies in addition to federal policies, and the number of states

naturally creates a difficulty. To overcome this difficulty, I have followed a different analytical procedure with regard to states' policies than in the chapter on France (at the federal level, I have analysed all agro-environmental policy instruments). In order to identify a general trend, I have relied on a survey conducted in 16 states. The survey, discussed further below, suggests a general move in the direction of more state command and control regulations. Table 5.1 identifies some general characteristics of this trend at the state level in addition to listing the federal agro-environmental policy instruments that entered the analysis. But in order to understand better some of the potential regulatory differences between the states, I have also selected three states, namely Iowa, North Carolina, and Oklahoma, for a more thorough analysis.

One notable difference between France and the US is in the range of the competing approaches to addressing agro-environmental problems. In the US, the choice is mostly between approaches that are voluntary in nature, such as the positive incentive and educational approaches, and the regulatory approach. The reformative and endogenous approaches have much less institutional support in the US than in France. A convincing explanation for their absence is the historical lack of a peasantry and the hegemony of commercial farming in American history.[5]

A rapid look at Table 5.1 already indicates that a number of agro-environmental policy instruments in the US were adopted between the 1970s and the 1990s. Similar to the analysis of France, I will assess each of the instruments in turn, focussing on their

comprehensiveness and intrusiveness. I will begin by discussing the evolution of federal agro-environmental policies before turning to the states.

Table 5.1: Federal Policy Instruments and Some Aspects of State Policies

Approach	Federal Policy		State Policies	
	1970s	1990s	1970s	1990s
Regulatory	-Clean Water Act	-Clean Water Action Plan -House and Senate Bills on CAFOs	-Few regulations	-Permits required -Manure management planning -Distance separations -Local control -Production moratoria
Incentive	-None	-CRP -EQIP -Coastal Zone Act	-Limited number of states with a cost share programme	-31 states with a cost share programme
Cross-Compliance	-None	-Deficiency payments linked to conservation compliance, swampbuster and sodbuster	-None	-None
Educational	-Land grant universities	-Land grant universities -Soil conservation service	-Land grant universities	-Land grant universities

CAFO = Concentrated Animal Feeding Operations
CRP = Conservation Reserve Programme
EQIP = Environmental Quality Incentive Program

Federal Agro-Environmental Policies

Agro-environmental regulations at the federal level in the US were first experimented with under the Clean Water Act of 1972. Section 502 of the Act identifies concentrated animal feeding operations (CAFOs) as producers of point source pollution, thereby subjecting these operations to the National Pollutant Discharge Elimination System (NPDES) permit requirements. In 1976, the EPA adopted a regulation defining what constitutes a CAFO. A CAFO is an operation that confines 1000 animal units for 45 days or more during the period of a year, or an operation that confines between 301 and 1000 animal units for 45 days or more that discharges waste into US waters. The regulation also stipulates that the permitting authority can designate CAFOs on a case by case basis.

It should, however, be noted that very few farms that confine less than 1000 animal units are considered CAFOs. Moreover, EPA estimates that only about one third of the 6600 CAFOs in the US have permits, which themselves are often outdated.[6] Thus, very few of the very large farms in the US have a federal NPDES permit.[7] Moreover, manure spreading is considered as a non-point source pollution and as such is not covered by the Clean Water Act. If the NPDES permits for CAFOs with more than 1000 animal units come with a zero discharge rule, manure applied as a fertilizer is exempted. Therefore, it is fair to argue that the CAFO regulations under the Clean Water Act are not comprehensive nor intrusive since very few farms are covered and land application is left out.

In February 1998, the Clinton administration released the *Clean Water Action Plan*. The plan notably calls for EPA to publish and implement a new strategy for regulating and permitting animal feeding operations.[8] The strategy was published in March 1998 and promises a revision of the current NPDES regulations for CAFOs, an inspection of all permitted facilities, and a review of the effluent guideline. While the regulations coming out of this strategy might be slightly more comprehensive than the current regulations, there is little indication that they will be more intrusive. The strategy suggests that the revised regulation should prioritise the largest CAFOs and vulnerable watersheds. The strategy also calls for a revision of the definition of CAFOs, but it is mostly for the purpose of screening out some of the operations with fewer than 1000 animal units that are currently considered as CAFOs. Although the application of manure to land might become subject to the regulation, granting discharging permissions to encourage the use of treatment technologies is also considered. At the time of writing, it appears clear that this EPA strategy will be further modified to be integrated into a broader United States Department of Agriculture (USDA) - EPA strategy also called for by the Clinton administration in its *Clean Water Action Plan*. One might expect the joint strategy to be rather accommodating in the protection of farmers' freedom to produce.

Beside the plan of the administration regarding animal feeding operations, two bills were introduced by Democratic members of Congress, a Senate bill in October 1997 and a House bill in January 1998, both addressing pollution caused by CAFOs. As originally presented, the Senate bill would apply only to very large operations (over 3600

pigs). For those operations, nutrient management plans would be mandatory, land application, and the construction of manure storage facilities would be regulated. The bill also calls for a strict enforcement of the regulation. The House bill contains similar provisions except that it would cover a much larger number of operations as it defines a swine operation with more than 1000 pigs as a CAFO. As long as the Congress is controlled by Republicans, however, neither of these bills is likely to pass without significant modifications. Environmentalists have indeed a declining influence on the Hill. A Congressional staffer said "the Republican majority [elected in 1994] took care of them (...), you can look at a number of votes in the last Congress where the environmentalists were losing (...), the bloom is clearly off the environmental rose."[9] In short, stringent regulations are unlikely to come from Congress in the near future.

Because of the initiative of the Clinton administration, federal regulations might be becoming slightly more comprehensive in the 1990s, hence a moderate ranking in Table 5.2. On intrusiveness, however, there is nothing to indicate any significant change.

Agricultural policy in the US is governed by omnibus farm bills reviewed by Congress roughly every five years. And over the years farm bills have integrated a number of agro-environmental programmes. The 1985 farm bill contained four environmental provisions, namely the Conservation Reserve programme, conservation compliance, swampbuster and sodbuster rules. It should be noted that conservation programmes and services have a long history within USDA.[10] The Conservation Reserve programme was indeed largely inspired by the Soil Bank programme abandoned by the

federal government in the 1960s.[11] The soil bank and other earlier conservation measures administered by USDA were created to retire land from production. And it is similar motives that guided the adoption of the Conservation Reserve Programme (CRP).

Table 5.2: Decentralized Policy Change

Approach	Instrument dimension	Federal government		State government	
		1970s	1990s	1970s	1990s
Regulatory	Comprehensiveness	low	moderate	low	high
	Intrusiveness	low	low	low	high
Incentive	Comprehensiveness	low	high	low	moderate
	Intrusiveness	low	moderate	low	moderate
Cross-Compliance	Comprehensiveness	low	low	low	low
	Intrusiveness	low	low	low	low
Educational	Comprehensiveness	low	high	low	high
	Intrusiveness	low	low	low	low

At the beginning of the 1980s, the US had to store important surpluses notably because of the emergence of Europe as an exporter of agricultural products.[12] In addition, several US farmers who had made important investments in the 1970s were suddenly badly hurt by the embargo on the USSR following the Afghanistan war.[13] The Conservation Reserve Programme was, therefore, an efficient way to support farmers' income without encouraging production.

More specifically, under the CRP, a farmer can rent parcels of land vulnerable to erosion to the government for a ten-year period.[14] During this period, the farmer cannot use the rented land for production and must plant it in grass or tree cover. USDA

reimburses one-half of some conservation expenses on the rented land. In the 1990 farm bill, some modifications were made to the CRP to enroll land where production was likely to have an impact on water quality.[15] And under the 1996 farm bill, in addition to USDA been reauthorised to maintain the level of acreage under conservation contracts, provisions were supplied for the development of an Environmental Quality Incentives Program (EQIP) whereby farmers receive assistance that may pay for up to 75 percent of the costs of certain conservation practices. The appropriation for EQIP is in the order of 200 million dollars annually. More recently, in the spring of 1998, the Secretary of Agriculture announced the Conservation Reserve Enhancement Program which should embrace more comprehensive environmental objectives than the CRP.

An additional incentive programme is section 319 of the Coastal Zone Act administered by EPA. This programme provides states within the coastal zone with funding for implementing programmes addressing non-point source pollution following broad EPA guidelines. The so-called 319 programme has a budget of slightly over 100 million dollars per year, a small amount in comparison with the more than two billion dollar CRP appropriations for 1994.[16] No one should be fooled by these numbers however. Since 1985 there were some ups and downs in CRP appropriations, but overall the levels were maintained rather than increased. We also saw that the CRP is in perfect continuation with the Soil Bank whose main objective was to subsidize farmers' income without encouraging over production. For these reasons, the federal agro-environmental subsidies, I argue, became only moderately intrusive in the 1990s relative to the past.

The American federal government responded to increases in agricultural pollution mostly by increasing the comprehensiveness of its various programmes providing positive incentives.

Conservation compliance, the swampbuster, and sodbuster rules are designed to penalise farmers whose production practices might endanger soil or wetlands. Under those rules, farm programme benefits are cut off for producers who do not carry out an approved conservation plan on land vulnerable to erosion (conservation compliance) or who farm on wetland (swampbuster) or on highly erodible land (sodbuster). In the 1990 farm bill, however, the penalties under the swampbuster rule were significantly reduced, while the sodbuster was dropped. In addition, observers complained about the lack of enforcement of the conservation compliance provision,[17] which incidently was made less intrusive in the 1996 farm bill.

Lastly, agricultural education and extension in the US are joint responsibilities of the federal and state governments and the programmes are delivered by the land grant universities and conservation districts where agro-environmentalism is particularly concerned. In fact, conservation districts have been providing important extension services to farmers in collaboration with state and federal conservation services for a long time. Among other things, they provide engineering guidance for the construction of manure storage facilities. And it is obvious that environmental concerns have gained importance for land grant institutions over the years.[18] But unlike France, the educational approach was never promoted as the main US approach to agro-environmental problems.

It appears clear from this brief analysis and Table 5.2 that the federal government, between the 1970s and the 1990s, has refrained from adopting intrusive and comprehensive regulations. Even the regulatory projects under study at the time of writing promise to exclude a large number of farms from important restrictions. Instead, the federal government has opted for reviving and revamping conservation programmes with the result that in the 1990s, in contrast to the 1970s, the government has rather comprehensive incentive programmes. When compared to the conservation programmes the country has had since the 1930s, however, the increase in intrusiveness is marginal. The primary objective of CRP was to subsidize farmers during a difficult period.

The States' Agro-Environmental Policies

As indicated above, the task of reviewing the regulations and programmes of the fifty states would be overwhelming. Two researchers from Purdue University, Alan Sutton and Don Jones, have, however, recently conducted a survey on animal waste management regulations in sixteen states.[19] Some general findings from this survey are worth mentioning.

Comparing their survey to a survey conducted in 1992, the two authors conclude: "it is clear that individual state regulations are currently more stringent in storage structure design and approval, more separation distances implemented, more attention and requirements on land application rates, and development of manure management plans (...). [And] a most significant change in regulations currently is the attempt to control odor problems with set back distances."[20]

Of course, the authors note variations in terms of rigour on some other aspects of state policies, notably in lagoon closure, in the importance of separation distances, and in infiltration area requirements to cite a few examples. But what is important to note here is the trend in most agricultural states toward the adoption of CAFO legislation that deals with a rather wide range of practices. My own analysis of three states confirms the trend, but not without adding interesting nuances.

Since I am interested in nuances in the face of this general trend toward regulations, I had to select three somewhat dissimilar agricultural states. The first is Iowa, which has the largest swine inventory in the United States and whose structure of production remains largely characterized by family farming. The second, North Carolina, offers an interesting contrast to Iowa in that the substantial and recent growth of the livestock industry was pioneered by a narrow network of corporate farms. Lastly, Oklahoma is one of the few Midwestern states that has repealed its law restricting corporate ownership in recent years, thereby opening its door to large integrators. In short, Iowa has traditionally had a reputation of being a friendly place for family farms, North Carolina has enjoyed a reputation of providing a good climate for corporate farms, while Oklahoma is attempting to attract larger corporate farms.

Despite these differences, it is interesting to note that each of the three states has adopted laws in the 1990s penalizing livestock farmers whose practices might pollute, thereby confirming the trend toward more regulations. The statutes of the three states,

however, are not equally stringent for every farmer. The regulations are compared on a number of aspects in Table 5.3.

Table 5.3: Livestock Regulations in Three States

Measures	Iowa	North Carolina	Oklahoma
Permit requirement	less encompassing than federal NPDES*	more encompassing than federal NPDES	less encompassing than federal NPDES
Manure management plans	required for permitted operations	required for operations of 100 animal units or 250 pigs	best management and odour abatement plans required for permitted operations
Separation distances	-new buildings: 1000 feet -land application: 750 feet	-new buildings: 1500 feet or more -land application: 50 feet	-new buildings: 1/4 of a mile or more -land application: 500 feet
Local control	disabled	enabled	enabled
Moratorium	No	Yes	Yes

* The federal NPDES permits are mostly for operations with more than 1000 animal units, the equivalent of 2500 pigs and 1000 bovine. There are some small differences in the results that I report in this table and those of Sutton and Jones. The data in this table come from very recent documents published by the three states.

North Carolina has the most stringent regulations with all farms of more than 100 animal units required to have a permit issued by the Department of the Environment, Health and Natural Resources before December 1997.[21] The permit process comprises the certification of animal waste management plans covering waste collection, storage, treatment, and application. Moreover, permitted facilities are to be inspected frequently

to ensure that standards of operation and maintenance are respected. And in the face of inspection difficulties, the state increased the staff of the Division of Water Quality, the state agency in charge of carrying out this task. Moreover, statutes passed between 1995 and 1997 require that operators who apply manure on land be certified, impose separation distances for new buildings and manure application on land, enable county zoning, and impose a two-year moratorium on the expansion of the hog industry.[22]

The permit requirement in Iowa covers fewer farmers. Coverage varies, but farms that have less than 400 cattle or 3600 pigs are exempted as well as larger farms that use formed manure storage structures or solid waste systems. Moreover, receiving a permit applies only to new and expanding operations. As for North Carolina, however, permitted operations must have manure management plans. Rather severe minimum distance separations must also be respected by farmers. And unlike North Carolina, new structures that require a permit in Iowa have to meet certain environmentally oriented construction standards. Lastly, reflecting Iowa's accommodating nature toward farmers, the state prohibits county regulations and has not seriously considered imposing a moratorium on the expansion of any livestock industry.[23]

Oklahoma sits in between Iowa and North Carolina. On the one hand, and much like North Carolina, the state has imposed severe regulations, notably a moratorium on the hog and poultry industries. The state has also authorized local control, has imposed constraining distance separations as well as construction standards for lagoons, has called for inspections and important fines in case of violation of the law, and has even required

farmers to adopt odour abatement plans. On the other hand, the requirement to have a permit applies only to operations of 2000 animal units (the equivalent of 5000 pigs), twice the threshold of the NPDES federal permits. Moreover, the regulatory authority, unlike the two other states, is lodged within the agricultural rather than the environmental agency.[24] In other words, Oklahoma is tough but more often than not only with very large farmers.

In short, as Table 5.2 suggests, states where agriculture is an important activity have adopted regulations in the 1990s that are more comprehensive and certainly more intrusive than the federal regulations. Table 5.3 further indicates that from one state to the next, the regulations impose constraints on farming practices that vary in substance and rigour. I will now turn to the provision of agro-environmental financial incentives by state governments.

According to a recent report, thirty-one states have established conservation cost share programmes.[25] In general terms, cost share programmes are funded strictly with state money and are designed to match a given percentage of farmers' conservation investments. Of the three states under study here, Iowa has the oldest programme. It was established in 1973 and now provides farmers with up to 60 percent of the cost of certain conservation practices. In 1997, the budget of the programme was 6.6 million dollars and it has cost a total of 144 million dollars since 1973. In North Carolina the shared cost programme was established in 1984 and covers "up to seventy-five percent of the cost of practices designed to protect soil and water, including improved animal waste

management."[26] In 1995, funding for the shared cost programme had reached 8.2 million dollars. And in 1996, House Bill 53 added 5.75 million dollars to the programme, in addition to reserving 6.5 percent of any remaining balance from the General Fund for the purchase of land, including agricultural land, for the purpose of creating riparian buffers.[27] The shared cost programmes in Iowa and North Carolina, however, are small programmes when compared to French, Washington, and even some Canadian incentive programmes. The programmes are nevertheless rather generous compared to similar programmes in other states. Oklahoma, for example, has yet to adopt such a programme.

States have not used cross compliance to promote the use of conservation practices. That is not very surprising given that states, unlike the federal government, have few general agricultural programs supporting farmers' income. Again, education and extension are provided by land grant universities and conservation districts, both federal-state cooperative endeavours.

In summary, the federal government has very few regulations concerning agricultural pollution, and at this point, the evidence suggests that this situation will prevail in the near future. Most federal actions in the area of agro-environmental policy took the form of reviving and revamping old conservation programmes that, in fact, date back to the 1930s. From the 1970s to the 1990s, the federal incentive programmes have nevertheless become more comprehensive covering a wider array of farming practices. As Table 5.2 suggests, the situation is almost the opposite at the state level. The incentive approach has remained a secondary instrument for states while regulations to

deal with agricultural pollution have become comprehensive and intrusive, yet with some variations from one state to the next.

Certainly this situation of decentralized policy change offers an interesting contrast with France's profound policy change. On the one hand, the federal government did not break away from the approach to which it had committed in the past. On the other hand, tough state regulations were not compensated with side payments.

Explaining Decentralized Policy Change

Once again, looking at the membership of the policy communities and at the structure of the policy networks provide good interesting explanations for the US situation. In order to present what constitutes a crucial institutional contrast between France and the United State, I will begin by speaking about the structure of the policy networks.

The Structure of the Policy Networks

An important difference between France and the US is that in the latter there is no corporatist relationship between the state and civil society groups. In the language of Scharpf,[28] "negotiated agreements" in the United States normally exclude civil society actors. The separation of powers that characterizes the US presidential system appears to leave little room for stable concertation with encompassing interest groups. Rather, farm groups are advocates in a pressure pluralist setting.

This factor is particularly important since corporatist networks are believed to increase the power potential of the civil society actors who participate in policy

making.[29] Following this observation, the FNSEA should be more successful in imposing its views on the government than any American farm group. In fact, no farm group in the US receives the type of endorsement the FNSEA receives from the French government.[30]

Such variations in the situation of groups, I argue, is likely to affect their strategic positions. One might expect groups in pluralist settings to have policy preferences more adaptable to new circumstances. For example, aware of their limited power potential, farm groups in the United States might be more willing than their French counterparts to accept that they are to an extent responsible for the degradation of the environment. And in fact, the National Pork Producers Council went as far as embracing the idea of environmental regulations for agriculture, albeit within limits that do not threaten production.[31] Nevertheless, the position of the National Pork Producers Council goes much farther than any position one can imagine the FNSEA might adopt in the near future. Therefore, if corporatist settings increase the power potential of groups in civil society, pluralist settings might encourage groups to adapt their preferences.

The work of Paul Sabatier provides useful insights for studying the evolution of the preferences of policy making actors.[32] Sabatier argues that an understanding of policy change over a period of a decade or more in the United States must account for more than just the traditional "iron triangle" comprising administrative agencies, legislative committees, and a limited number of interest groups. Rather, Sabatier suggests looking at "policy subsystems" that "include actors at various levels of government active in policy formulation and implementation as well as journalists,

researchers, and policy analysts who play important roles in the generation, dissemination, and evaluation of policy ideas."[33] Sabatier argues that between two and four advocacy coalitions should emerge within any policy subsystem, organized around differing sets of core beliefs.

For Sabatier, policy change is often the result of two somewhat interactive processes. First, external shocks create perturbations within the subsystem, with an effect similar to the opening of one of Kingdon's policy windows.[34] Second is policy-oriented learning that I have already discussed in Chapter Three. Again, policy-oriented learning is defined as the "alterations of thought or behavioral intentions (...) which are concerned with the attainment or revision of the precepts of the belief system of individuals or of collectivities."[35] According to Jenkins-Smith and Sabatier, learning takes place "within" or "across" advocacy coalitions.[36] That is, it involves communicative action among the members of a coalition or between the members of two or more coalitions. Major policy changes are likely to occur when learning takes place between advocacy coalitions while learning within advocacy coalitions leads to more incremental changes.

My comparison of France and the United States led me to believe that a focus on advocacy coalitions is more appropriate for pluralist rather than corporatist settings. Communicative action may be more necessary in a pluralist setting, particularly communicative action across advocacy coalitions. Certainly, the power potential granted to the FNSEA by the corporatist structure does not discourage learning within the

organisation, [37] but it provides no incentives to engage the FNSEA in a learning process with other groups which have different ideas. Conversely, since governments in the US tend not to collaborate directly with encompassing organisations, groups that seek to increase their power potential might be encouraged to engage in communicative action with other groups or individuals, naturally with a view to forming coalitions. The process of forming coalitions among diverse groups should require significant learning. Hence, actors should have adaptable policy preferences in the pluralist setting of the United States, while actors' preferences in corporatist settings may be more rigid.

Certainly, agro-environmental policy-making in the United States supports this proposal. Public pressure for regulating the hog industry increased in the US following changes in the structure of production and giant manure spills, notably in North Carolina. In reaction, the National Pork Producers Council sought increasing discussions and support from several groups on appropriate solutions. According to an interviewee, the Council "spent a lot of time in Washington asking whether there was a way to get different people to come together and talk about these issues."[38] Policy learning and the process of forming an advocacy coalition clearly began when America's Clean Water Foundation, a group of state water quality regulators, accepted to undertake a "Pork Dialogue." Environmental groups, hog producers from a number of states, EPA, and USDA were invited to participate. Environmental groups were the only party invited that declined, but not without engaging in an informal dialogue.[39] During the process, the

formal participants to the Dialogue consulted with various experts, other farm groups, and the public.

As a result of the Dialogue, the NPPC came to endorse the position that it was necessary to regulate hog production. While the regulatory framework proposed by the Dialogue excludes regulations such as production moratoria, it includes several proposals for regulations that are more severe than those that are in place in the three states discussed in the first section of this chapter. For example, the dialogue "calls for review and approval, by the appropriate regulatory authority, of all pork production operations, *regardless of size.*"[40] In addition, the dialogue suggests construction standards for facilities, the certification of the operators, important set backs for the construction of farm buildings and for the land application of manure, and severe penalties for violators.

There is no doubt that the endorsement of such a proposals by the National Pork Producer Council came as a result of learning the potential benefits of regulations for hog producers. A member of the Council said that during the dialogue

> "EPA and state regulators presented data that small operators were in fact chronic polluters in parts of the country. Then someone said that bigger operators, because they have permits, have the ability to demonstrate in a court of law that they are not polluting, but all those small operations that are exempted from the regulation do not have that same ability to protect themselves. Anyway, it is not right to say to a group of people that it is OK to pollute (...). [Under those circumstances,] we came to think that

farmers can afford to document that they are not spreading their manure over the top of wells or near surface water for example. And that notion caught on."[41]

The Pork Dialogue appears to have had quite an impact on policy makers. An official of USDA said that the framework proposed by the Pork Dialogue "is a heroic document." He added that "the joint EPA-USDA strategy will be consistent with *most* of the pork dialogue."[42] Even the administrator of EPA praised the document.[43] Through America's Clean Water Foundation and state pork producer councils, state policy-makers also became aware of the regulatory framework proposed by the Pork Dialogue. Following this success, the poultry industry has convened a similar dialogue. Most general farm organisations, however, are still undecided on whether to fully endorse the regulatory approach of the Pork Dialogue, but it is reasonable to argue that their position has also evolved as a result of the process. With farmers' preferences converging toward the public pressure that has build up in favour of intrusive regulations over the last decade, not much is left in the way of state governments to adopt policies that significantly constrain farming practices.

Faced with the fact that pressure pluralism in the United States has led a number of farm groups to make their policy preferences more accepting of the regulatory approach, one might ask the three following questions: why was policy change toward the regulatory approach more significant in France? Why were states more inclined than the federal government to adopt regulations? And why did some states adopt more

intrusive regulations than others? To address these questions, I have to turn to the membership of the policy communities at the federal and state levels.

Policy Communities Membership

Sabatier is very critical of a focus on what he calls "iron triangles" comprised of a narrow set of administrative agencies, legislative committees and interest groups.[44] His approach may, therefore, appear to conflict with Scharpf's idea of an actor constellation[45] or the idea of a sub-government developed by the students of policy communities.[46] I argue that these approaches are rather compatible in that advocacy coalitions, mostly relevant to the US, contribute to forging the preferences of the actors in the sub-government or the actor constellations that even in the US are responsible for the final policy decisions.

More specifically, policy outputs in Sabatier's framework are decided by "policy brokers." Policy brokers can be elected officials, but also Blue Ribbon Commissions, the courts and other actors.[47] What Sabatier does not acknowledge is that in a policy sub-system or a policy community, there may be more than one policy broker. This omission appears strange in the context of the United States where a system of checks and balances is constitutionally entrenched. Decisions can rarely be the result of the action of one single institution in this country. Thus, it is perfectly reasonable to expect policy decisions in the United States to be the result of negotiations among policy brokers, or actors of the sub-government of a policy community or those of an actor constellation, all concepts that in my opinion can be used interchangeably. Again, this is not to deny the

importance of advocacy coalitions. Just as Sabatier acknowledges that brokers are to various degrees advocates, Scharpf recognizes that actors who do not directly participate in policy-making can still influence the actors who are members of the actor constellation.

My task will, therefore, be to identify the actors of the sub-government, and their policy preferences and resources at the federal and states level over time. Similar to France, this endeavour is a useful one because the membership of the policy community might decide the emphasis of the outcome on brokering or on negotiations among policy participants. I will argue that at the federal level, the agro-environmental negotiation setting has traditionally defined agricultural pollution as a problem related to the creation of wealth and that the pressure for changing this definition in favour of distributive justice has not so far sufficed. In contrast, policy community membership at the state level has allowed the game to clearly become one of distributive bargaining.

Farm bills are obviously oriented toward the generation of wealth for farmers. They are of interest to members of Congress who are from agricultural states or districts. The bills are studied by the agricultural committee as they are implemented by USDA.[48] And these actors naturally remained central when the views of environmentalists gained acceptance during the negotiations of the 1985 farm bill. Thus, it is not very surprising that the influence of environmentalists did not translate into severe regulations but rather led to the reviving of programmes of financial incentives. Such an approach was indeed in line with USDA's long experience with conservation policy.[49] As a USDA official

said, "we have a policy position of no pollution at large (...), but the process of getting there is through technical assistance, conservation planning, and cost shared incentives."[50]

As I have argued before, however, public pressure for agro-environmental regulations began to increase in the 1990s. Coincidently, the Clinton administration has shown the desire to include this issue in its environmental record in view of the Vice-President's bid for the Democratic nomination for the presidential election of the year 2000. Al Gore has in fact been given the responsibility for the Clean Water Action Plan discussed above. Of course, as environmental issues are not salient for Republican Congressmen who control both Houses since 1994, the Democratic administration has sought to move on regulating agricultural practices without calling for legislative actions. As an interviewee said "the Clean Water Action Plan represents a revision of the Clean Water Act without having to go through the Republican Congress."[51] And as another interviewee pointed out, the Clean Water Act allows some discretion for the administration to act on the CAFO issue without Congress.[52]

If EPA was to have the capacity to act unilaterally in the area of agro-environmental policy, there is not a doubt that under the pressure exercised by the public and the Clinton administration, the bargain would have become one of distribution with stringent command and control policies been adopted. EPA, however, does not have such a capacity. In fact, EPA cannot ignore USDA which has a much longer experience

in dealing with agro-environmental problems. It is certainly in this context that one must understand the call of the Clinton administration for a joint EPA-USDA strategy.

The Natural Resources Conservation Service (NRCS) of USDA has a history that dates back to the 1930s. Moreover, NRCS is a rather resourceful service with access to thousands of state conservation districts that have a long experience in implementing conservation policies.[53] In contrast, EPA has a short history, a relatively small field level staff spread into 10 regions, and only limited success in cooperating with states.[54] Generally speaking, USDA has for a long time been a powerful federal department[55] in comparison to EPA.

It appears that the emphasis of the federal government on conservation policy is a typical case of path dependency. Because of choices made in the 1930s, USDA has developed an interest in conservation policy whose objectives have naturally never competed against the more general concern of supporting wealth generation for farmers. On the contrary, the provision of financial incentives for conservation has historically contributed to maintaining farmers' income. In turn, farmers have become supportive of USDA's conservation policies. Under these circumstances, it is difficult for EPA to respond to the pressure for more regulations. As an EPA official said, "the largest guys may need to be regulated and we are dealing with the details of that, but for smaller farmers who are already working with USDA, we do not want to get involved at all."[56]

Contrast this situation with that of states whose involvement in agricultural policy is largely dependent on USDA. In fact, state departments of agriculture are minor

players in agricultural policy-making in the United States. In addition, responsibilities for conservation policy at the state level are often located in Departments of the Environment and Natural Resources. In short, at the state level, departments of agriculture are relatively weak and in any case lack a tradition in the agro-environmental sector to impose any approach. Conversely, some states have a history as pioneers in a number of issues relating to environmental protection.[57] In North Carolina, the Department of the Environment, Health, and Natural Resources (DEHNR) is influential in the sector of agro-environmental policy. In fact, the first livestock regulations in that state appeared in 1993, before the issue became a major concern among the public as well as a concern to the General Assembly. To the question of whom decided that 1993 was the right time to regulate the livestock industry in North Carolina, an official of DEHNR simply answered "it was the Environmental Management Commission and its staff, that is us, who thought it was time."[58] Therefore, when endowed with weak agricultural departments and relatively capable environmental regulatory agencies, states were able to respond to public concerns regarding agricultural pollution with stringent regulations. In other words, the institutional arrangements at the state level often allow a policy making focus in the agro-environmental sector on the distribution of the cost and benefits of farming practices as opposed to the generation of wealth.

Because of variations from one state to the next in the membership of the attentive public, however, states' agro-environmental policies are not equally severe for

all farmers. A characteristic of the attentive public that appears influential is the strength of groups that represent independent family farmers.

In Iowa, for example, only 15 percent of the production of hogs was accomplished under some sort of contractual arrangement with large corporations in 1995, while in North Carolina in the same year 84 percent of the production was undertaken under such contracts.[59] Naturally, many Midwest farmers fear the North Carolina situation which would force them to choose between going out of business or becoming dependent on an integrator. To address this fear, several Midwestern states such as Nebraska, Illinois, Missouri and of course Iowa have adopted laws to restrict farm ownership by large corporations.[60] But in the face of increased international competition, these statutes have either been weakened, if not repealed, or proven to be simply inefficient at controlling farm integration. Thus, several groups of family farmers have resorted to associations with environmentalists in advocating environmental regulations that are strict when it comes to the operations of the larger corporate farms, but generally more accommodating for smaller operators.

In the Midwest, family farmers' electoral weight alone guarantees that they will be heard by policy-makers. In addition, some groups of family farmers in some states are given a privileged input into agro-environmental policy-making. In Iowa, a 1995 statute created the Animal Agriculture Consulting Organization which overwhelmingly represents family farmers and whose mandate is to advise the Environmental Protection Commission in developing livestock regulations. The political weight of independent

family farmers in a state like North Carolina pales in comparison. In short, differences in the composition of the attentive public tend to affect the preferences of policy makers and in turn produce differences in the treatments of smaller farmers from one state to the next.[61]

Summary

In the United States, agro-environmental command and control regulations have become more comprehensive and intrusive at the state level. I have argued that the structure of the policy networks and the membership of the agro-environmental policy communities at the federal and state level explain this situation of regulatory decentralization.

The pressure pluralist setting into which agro-environmental policy making takes place in the United States encourages policy learning or changes in the preference of actors forming the policy communities. As a result of this process some important farm groups have endorsed the idea of agro-environmental regulations. It appears, however, that this was not sufficient to make the federal government increase the intrusiveness of its agro-environmental regulations. The presence of a strong agricultural agency in the sub-government of the policy community has prevented such a policy change. Despite the best efforts of the federal environmental agency, the country's national agro-environmental policy remains narrowly focussed on an approach that poses no risk for the economic interests of farmers.

At the state level, it is roughly the opposite. The strength of the federal government in agriculture has pre-empted the development of strong state agricultural agencies while the environmental agencies are rather powerful in several states. Therefore, the membership of state level sub-governments allows states to address the public concerns for the distribution of the costs and benefits of agricultural practices, often without much consideration for the economic interests of the sector.

Conclusion

I argue that the policy changes that took place in the United States indicate a lower level of policy making performance than that of France. The federal government clearly suffered from a lock-in effect that prevented the adoption of intrusive policies and instruments belonging to a mix of approaches. The states have certainly stepped in to compensate for the absence of federal regulations, but it has often been done without much consideration for the interests of their agricultural sector. In short, the American performance is not quite at as a high level as that France.

Similar to the French performance, however, the American performance is best explained by looking at institutional variables. The pluralist settings that characterize the agro-environmental sector in this country did encourage learning across advocacy coalitions, but it was not sufficient to produce important changes at the federal level. The strength of the United States Department of Agriculture in the sub-government of the policy community prevented profound changes from occurring. To an extent, however, federalism provided a way around the entrenched position of the USDA.

Because the reach of the USDA to the county level pre-empted the development of strong departments of agriculture at the sub-national level, state policy makers turned to environment or natural resources departments for help, and these were accustomed to the use of rather intrusive regulatory policy instruments.. Unfortunately, these sub-national settings, unlike the French setting, did not always allow for the "representation" of agricultural producers in the actor constellation. Accordingly, policy did not necessarily balance very well the economic interests of agricultural producers with the interests in a cleaner environment held by the other players.

End Notes

1. John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (New York: Harper Collins, 1995).

2. See John Mark Hansen, *Gaining Access: Congress and the Farm Lobby, 1919-1981*, (Chicago: The University of Chicago Press, 1991); William P. Browne, *Private Interests, Public Policy, and American Agriculture*, (Lawrence: University Press of Kansas, 1988).

3. William P. Browne, *Cultivating Congress: Constituents, Issues, and Interests in Agricultural Policymaking*, (Lawrence: University Press of Kansas, 1995).

4. David Vogel, *National Styles of Regulation: Environmental Policy in Great Britain and the United States*, (Ithaca: Cornell University Press, 1986).

5. Kenneth Finegold and Theda Skocpol, *State and Party in America's New Deal*, (Madison: The University of Wisconsin Press, 1995).

6. United States Environmental Protection Agency, *Strategy for Addressing Environmental and Public Health Impacts from Animal Feeding Operations*, (Washington: EPA, March 1998), 6.

7. 1000 animal units correspond to 1000 feeder cattle, 700 dairy cows, 2500 pigs weighing over 25 kg, 100 000 laying hens or broilers with a continuous flow watering system. See United States Environmental Protection Agency, *Guide Manual on NPDES Regulations for Concentrated Animal Feeding Operations*, (Washington: EPA, December 1995), 6.

8. *Clean Water Action Plan: Restoring and Protecting America's Waters*, (Washington: February 1998), 62.

9. Interview, September 1995.

10. See Robert J. Morgan, *Governing Soil Conservation: Thirty Years of the New Decentralization*, (Baltimore: The John Hopkins Press, 1965).

11. Walter N. Thurman, *Assessing the Environmental Impact of Farm Policies*, (Washington: the AEI Press, 1995), 45.

12. Willard W. Cochrane, *The Development of American Agriculture: A Historical Analysis*, (Minneapolis: University of Minnesota Press, 1993), 154.

13. R. Douglas Hurt, *American Agriculture: A Brief History*, (Ames: Iowa State University Press, 1994), 333.

14. The Wetland Reserve Program and the Water Bank are two programmes related to the CRP but of minor importance. See Thurman, *Assessing the Environmental Impact of Farm Policies*, 44.

15. Thurman, *Assessing the Environmental Impact of Farm Policies*, 45-48.

16. In 1986, the first year of CRP, total CRP spending was $137 305 000.00. In 1994 it reached $202 992 000. In 1995 it dropped back to its 1986 level. Source: United States Department of Agriculture, *Agricultural Statistics 1997*, (Washington: United States Printing Office, 1997), XII-8.

17. Thurman, *Assessing the Environmental Impact of Farm Policies*, 54-56.

18. Cochrane, *The Development of American Agriculture*, 254.

19. Alan L. Sutton and Don D. Jones, "Animal Waste Management Regulations: A Look into the Future," (unpublished manuscript).

20. Sutton and Jones, "Animal Waste Management Regulations."

21. The deadline was not met, but a large number of operations now have a permit and the delivery of permits continues.

22. See Blue Ribbon Study Commission on Agricultural Waste, *Report to the 1995 General assembly of North Carolina 1996 Regular Session*, (Raleigh: May 1996); Jim Cummings, "Legislation Relating to Agricultural Waste and Regulations and Penalties on Pollution of Water Resources," (Paper presented at the Agribusiness Law Conference, Campbell University, January 1997). See also House Bill 515 of the 1997 Session of the General Assembly of North Carolina.

23. In 1998 the state has nevertheless imposed a three year moratorium on the construction of earthen lagoons. On the various regulations see Department of Natural Resources, "Confinement Feeding Operations," at: http://www.state.ia.us/government/dnr/organiza/epd/wastewtr/feedlot/feedlt.htm. See also Environmental Protection Commission, "Adopted Rule Awaiting Publication: Chapter 65 Animal Feeding Operations," (Des Moines: 1997).

24. For information on Oklahoma regulations see Oklahoma Department of Agriculture, "Concentrated Animal Feeding Operations," News release, December 17, 1997 at: http://www.oklaosf.state.ok.us/~okag/piarc/caforeq.html; Oklahoma House of Representatives, "Hog Regulation Bill Becomes Law," News release, June 4, 1997 at: http://www.lsb.state.ok.us/house/news407.htm; Oklahoma House of Representatives, "State House Divides Over Tougher Regulation of Hog Farms," News release, June 3, 1998 at: http://www.lsb.state.ok.us/house/news863.htm; Animal waste and Water Quality

Task Force, *Final Report*, (Oklahoma City: Office of the Secretary of the Environment, December 1997).

25. Oklahoma House of Representatives, "Legislator Calls for Cooperative Control of Water Quality in Oklahoma," News release, May 13, 1998 at: http://www.lsb.state.ok.us/house/news808.htm.

26. Blue Ribbon Study Commission on Agricultural Waste, *Report to the 1995 General assembly of North Carolina 1996 Regular Session*, 3.

27. Cummings, "Legislation Relating to Agricultural Waste and Regulations and Penalties on Pollution of Water Resources," 7.

28. Fritz W. Scharpf, *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*, (Boulder: Westview Press, 1997), Chapter 6.

29. William D. Coleman, "Banking, Interest Intermediation and Political Power: A Framework for Comparative Analysis," *European Journal of Political Research*, 26: 1 (1994), 31-59.

30. Browne, *Private Interests, Public Policy, and American Agriculture*; Browne, *Cultivating Congress*; Hansen, *Gaining Access*.

31. National Environmental Dialogue on Pork Production, *Comprehensive Environmental Framework for Pork Production Operations*, (Washington: America's Clean Water Foundation, December 1997).

32. Paul A. Sabatier, "Policy Change over a Decade or More" in Paul A. Sabatier and Hank C. Jenkins-Smith, (eds), *Policy Change and Learning: An Advocacy Coalition Approach*, (Boulder: Westview Press, 1993).

33. Sabatier, "Policy Change over a Decade or More," 17.

34. Kingdon, *Agendas, Alternatives, and Public Policies*.

35. Hank C. Jenkins-Smith and Paul A. Sabatier, "The Dynamics of Policy-Oriented Learning," in Sabatier and Jenkins-Smith, *Policy Change and Learning*, 42.

36. Jenkins-Smith and Sabatier, "The Dynamics of Policy-Oriented Learning," 48.

37. The myth of a unified farming community which sustains agricultural corporatism in France needs to evolve for the sake of maintaining the arrangement. See Jean-Louis Marie, *Agriculteurs et politique*, (Paris: Montchrestien, 1994), 15-17.

38. Interview, May 1998.

39. It is important to note that environmental groups in the United States have better resources to exercise policy influence than their French counterparts.

40. National Environmental Dialogue on Pork Production, *Comprehensive Environmental Framework for Pork Production Operations*, 2. Emphasis added.

41. Interview, May 1998.

42. Interview, May 1998.

43. National Pork Producers Council, "NPPC Delegates Overwhelmingly Endorse Environmental Dialogue Guidelines," (Press release, March 6, 1998), 30.

44. Sabatier, "Policy Change over a Decade or More," 17.

45. Scharpf, *Games Real Actors Play.*

46. William D. Coleman and Grace Skogstad, (eds), *Policy Communities and Public Policy in Canada: A Structural Approach*, (Mississaugo: Copp Clark Pitman Ltd., 1990).

47. Sabatier, "Policy Change over a Decade or More," 27.

48. Browne, *Cultivating Congress.*

49. See Morgan, *Governing Soil Conservation.*

50. Interview, May 1998.

51. Interview, May 1998.

52. Interview, May 1998.

53. See Morgan, *Governing Soil Conservation.*

54. See Barry G. Rabe, "Power to the States: The Promise and Pitfalls of Decentralization," in Norman J. Vig and Michael E. Kraft, (eds), *Environmental Policy in the 1990s: Third Edition*, (Washington: Congressional Quarterly Press, 1997).

55. Finegold and Skocpol, *State and Party in America's New Deal.*

56. Interview, May 1998.

57. See Sabatier, "Policy Change over a Decade or More," 14; Rabe, "Power to the States," 32-39.

58. Interview, April 1998.

59. Owen J. Furuseth, "Restructuring of Hog Farming in North Carolina: Explosion and Implosion," *Professional Geographer*, 49: 4 (1997), 397.

60. David J. Aiken, *State Laws Relating to the Ownership of US Land by Aliens and Business Entities*, (Washington: USDA, 1993).

61. This explanation, however, fails to account for the observed differences between Iowa and Oklahoma. It appears that Oklahoma has imposed more severe agro-environmental regulations on large corporate farms in recent years because of feedback originating from the repeal of its law on agricultural corporations in 1991. Iowa's agricultural corporation law was only slightly modified, but never repealed despite the pressure created by the competition among states in the hog sector.

Chapter Six

Canada: Explaining Divergence in Change

So far, I have argued that policy change in the agro-environmental sector in France and in the United States was strongly influenced by institutional factors. Again, changes in agro-environmental policy communities, made possible by Europeanization, led to profound policy changes in France while pluralism and federalism in the United States led to more moderate changes. One might, however, rightly point to the fact that in both countries regulations have become more important. Therefore, one might conclude from my analysis that institutions matter only at the margin, in fact merely drawing different paths for policy to ultimately converge.

In light of such observations, Canada appears to be a particularly interesting case to add to this study. Just like France and the United States, agricultural pollution was placed on the country's political agenda with increases in environmental stress caused by agriculture. Already in 1989, the concept of "increased environmental sustainability" was named as one of the four pillars of Canadian agricultural policy in *Growing*

Together, the major farm policy document of the Mulroney government.[1] A consultative task force followed and in 1990 a Federal-Provincial Committee on Environmental Sustainability took a broad look at environmental challenges arising from Canadian agricultural practices.

What is more, these growing environmental concerns came at a time when, just as in France and the US, the protected development paradigm was coming under fierce political attack from neo-liberals for its high budgetary costs in a time of growing deficits and its incompatibility with regional and international free trade.[2] As in the other two countries, a competing market-liberal policy paradigm has emerged in Canada. It envisages an eventual end to border protection and the removal of price and income policies that distort agricultural trade. By the mid-1990s, it has come to mean an agriculture sector operating increasingly in a relatively open regional economy with the signing of the Canada-US Free Trade Agreement and NAFTA, and a more liberal international economy with the conclusion of a liberalizing Agriculture Agreement in the Uruguay GATT Round.[3] Given rising regionalization and "internationalization" of agricultural markets, one might have expected to find very important pressures on North American governments for policy convergence when it comes to environmental regulation.[4] And within the Canadian federation, one might expect these pressures to be particularly strong.

Despite these pressures for policy convergence, policy change in Ontario and Québec, the two Canadian provinces on which this chapter will focus, did not merely

differ, it took entirely different directions. Québec's policies are comprehensive, coercive in approach, and rather intrusive into the production process. Those in Ontario, while comprehensive, rely much more on industry self-regulation and shy away from intruding significantly into farming practices.

The observation of policy divergence between Ontario and Québec is particularly interesting because the agricultures and the geographies of both provinces have much more in common than those of France and the United States. The most important agricultural regions in each province--the southern peninsula of Ontario and the valley of the St. Lawrence River in Québec--are both flat, adjacent to important water bodies and urban areas, planted with similar crops, and house similar types of livestock. In short, because Ontario and Québec have relatively similar agro-environmental problems but divergent policies, a comparison of the two provinces constitutes a good test for my argument that policy change is *significantly* influenced by institutional factors.

It is important to note, however, that well established institutionalist work on Québec's and Ontario's agricultural policies, most notably the work of Grace Skogstad,[5] does not readily lead to the expectation of more intrusive agro-environmental regulations in Québec than in Ontario. Québec's producers have long participated in a corporatist policy network where they should have been much better placed to obtain less intrusive rules and more self-regulation than Ontario's producers. Skogstad demonstrated that Ontario farmers functioned in pressure pluralist policy networks where they faced a relatively strong agriculture ministry.

My analysis of policy trajectories reveals some differences as well as changes since Skogstad's analysis of both provinces. More specifically, three institutional factors help explain policy divergence. First, Québec's main environmental act opened the door to the environment ministry to participate in the agro-environmental policy community's sub-government. Ontario's environmental acts did not have the same policy feedback, leaving its environment ministry in the attentive public.[6] Second, changes in governments in Ontario enabled the agricultural policy network to take on many attributes of closed bipartite corporatism during the 1990s, thereby enhancing the power potential of Ontario's farmers. Third, policy learning predisposed Ontario to self-regulatory approaches, but favoured strong statist policies in Québec. I argue that the combination of these institutional differences creates distinctive negotiation settings in the two provinces. In a fashion that bears similarities with France in the 1980s and to the American federal government, policy discussions in Ontario focus on instruments that belong to approaches that pose few risks to farmers' prosperity but exclude distributional issues. In contrast, Québec's institutions, like the institutions of France in the 1990s, are more conducive to discussions that also address distributive issues.

These arguments are developed in three sections. First, I outline the degree of divergence in agro-environmental policies in the two provinces. Second, I elaborate on the policies communities and networks, the evolution of which help explain the divergence between Québec and Ontario. Finally, I conclude on some additional theoretical implications derived from this Canadian analysis.

Agro-environmental Policy Divergence

In order to assess the degree of policy divergence in agro-environmental policy in Ontario and Québec, I have analyzed all agro-environmental policy instruments. I have naturally used the same definition of an agro-environmental policy instrument as that used in the other two empirical chapters. Again, an agro-environmental policy instrument is any instrument which has among other goals the prevention, the reduction, or the limitation of environmental damage resulting from agricultural practices.[7] An exception is made for pesticides whose regulation has more to do with the use of toxic substances generally, than with agricultural practices *per se*. Also, the registration of pesticides is primarily a matter of federal jurisdiction in Canada. The laws and programmes included in the analysis are listed in Table 6.1.

As I did in the two previous chapters, I have identified in Table 6.1 the approach to which each instrument belongs. The reader should notice instruments listed under a self-regulatory approach. If self-regulatory instruments were not accounted for in the two previous chapters, it is simply that the American and French policy instruments that belong to this category never attained the importance that they have in Ontario.

I will also assess both provinces' policy instruments along the dimensions of comprehensiveness and intrusiveness. As a reminder, comprehensiveness refers to the range of agricultural practices that a policy instrument may cover, while intrusiveness focuses on the degree of change in one or more agricultural practices required by the policy instrument.

Table 6.1: Agro-environmental Policy Instruments in Québec and Ontario in 1997

Approach	Québec	Ontario
Regulatory	-Loi sur la qualité de l'environnement. -Loi sur l'aménagement et l'urbanisme. -Loi sur la protection du territoire et des activités agricoles.	-Environmental Protection Act. -Ontario Planning Act. -Farm Practices Protection Act. -Ontario Water Resources Act. -Conservation Authorities Act.
Cross Compliance	-Crop management plans are required to be eligible for crop insurance.	-Certificate of compliance is required by some municipalities to obtain building permits.
Incentive	-Programme d'aide à la gestion des fumiers (PAGEF).	-Financial incentive for the implementation of an Environmental Farm Plan (EFP).
Educational	-Clubs-conseils. -Guides de bonnes pratiques agricoles. -Politique de gestion intégrée de l'eau par bassin versant.	-Best Management Practices Booklets. -Watershed Management Policy.
Self-Regulatory	-Plan d'action environnementale de l'industrie porcine. -Various programmes of the UPA.	-Environmental Farm Plan Programme (EFP).

I will begin with a comparison of the regulatory policy instruments listed in Table 6.1. Adopted by the Québec government in 1972, the *Loi sur la qualité de l'environnement* prohibits all activities, including agricultural activities, that result in the discharge of contaminants into the environment. Article 22 requires a permit from the Ministère de l'Environnement et de la Faune (MEF) for any activities that might produce contaminants, including the construction of any new farm buildings. In 1981, a regulation on livestock operations was adopted to guide the certification of farm

buildings.[8] Sealed manure storage facilities with a 200-day capacity became mandatory, and rules for distance from residences and for application of manure were set, with the possibility of agreements with neighbours for those operations that might lack sufficient land. In 1984, a moratorium on hog production was added for municipalities identified by MEF as having surpluses of organic nutrients. In 1996, the moratorium was lifted for operations dealing with certified surplus management organisations. In 1997, the regulation was overhauled and renamed *Règlement sur la réduction de la pollution d'origine agricole*. It includes new rules on set backs from watercourses and manure application dates, requires an increased storage capacity, and establishes norms on phosphorous levels and mineral fertilization. Even more important, farmers are required by the new regulation to prepare annual certified nutrient management plans.

Initially, the new regulation was also supposed to include provisions dealing with odours. Due to political difficulties, however, it was decided in 1995 that the question of odours would be addressed in the *Loi sur la protection du territoire agricole*, itself under revision to include provisions on the protection of farming practices. This addition to the law was to provide farmers with some protection against nuisance law suits and municipal by-laws on noise, dust, and odours. Farmers do not receive full immunity, however. The law provides immunity only to farmers that respect the newly adopted provincial directives on noise and odours, and the additional municipal by-laws established under a framework defined in the now harmonized *Loi sur l'aménagement et l'urbanisme*.[9] This latter framework, it should be noted, institutionalizes the

participation of civil society actors, including farmers, in the making of municipal by-laws on agricultural practices. Nevertheless, with agriculture falling into the ambit of the *Loi sur la qualité de l'environnement*, it is evident that Québec's agro-environmental regulations are comprehensive and intrude directly into farmers' practices.

Contrast this situation with Ontario where first of all the *Environmental Protection Act* does not even apply to animal waste disposed in accordance with "normal" farm practices. Instead, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the Ministry of the Environment and Energy (MOEE) produced a voluntary Agricultural Code of Practice to be used as a "guideline" for securing certificates of compliance for buildings and minimum distance separations. More recently, the Agricultural Code of Practice was supplemented with three booklets that provide new guidelines on managing nutrients and minimum distance separation. *The Farm Practices Protection Act* of 1988 provides producers protection against nuisance law suits from dust, noise, and odours as long as they adhere to "normal" farm practices. Although the *Farm Practices Protection Act* is subordinated to the *Environmental Protection Act* and the *Ontario Water Resources Act*, it does not include additional environmental regulations such as those found in Québec to complement the *Loi sur la protection du territoire et des activités agricoles*. Nor does the Ontario act define very clearly what constitutes "normal" farm practices.[10] In fact, this Act is more a mechanism for dispute settlement between farmers and their neighbours than an agro-environmental policy instrument.[11]

Finally, the *Ontario Planning Act*, the *Ontario Water Resources Act*, and the *Conservation Authorities Act* are agro-environmental policies only in a marginal way. The *Ontario Planning Act* subjects official municipal plans to a provincial policy statement on the protection of prime agricultural land through the inclusion of the Minimum Distance Separation guidelines and the promotion of "normal farm practices." The *Ontario Water Resources Act* prohibits any discharge (including agricultural waste) into any water body or any watercourse that might impair water quality. And lastly, Conservation Authorities may require permits for work, including agricultural work, in water courses and flooding areas.[12] In brief, as is summarized in Table 6.2, regulatory policy instruments in Ontario are both less intrusive and less comprehensive than those found in Québec.

The second approach, cross compliance, is only marginally used in both provinces. In Ontario some municipalities require a certificate of compliance before issuing building permits. In Québec, farmers are required to prepare crop management plans in order to be eligible for payments under Québec's crop insurance programme. Those plans include agro-environmental measures that are not very intrusive or comprehensive.

Instruments that belong to the positive incentive approach are more intrusive in Québec, while more comprehensive in Ontario. Québec's *Programme d'aide à la gestion des fumiers* (PAGEF), originally a 388 million dollar programme, was initiated in 1988 and comprises four sections: the construction of waste storage facilities, the

promotion of new technologies, support for surplus management organisations, and research. Most of the funds were spent, however, on the construction of sounder storage sites. Under this programme, farmers can indeed apply for a subsidy covering 70 percent of the cost of construction of sealed storage facilities up to 30 000 dollars per site and 100 000 dollars per operation. In its 1997-98 budget, the Québec government announced 320 million dollars in additional funding for PAGEF, now known as the *Programme d'aide à l'investissement en agroenvironnement*. Since the programme provides incentives for major investments and modifications in farm infrastructures, it is intrusive, albeit narrow, because it covers only waste management.

The *Environmental Farm Plan Programme* in Ontario takes quite a different approach. The Ontario Farm Environmental Coalition initiated the programme in 1992 hiring the farmer-controlled Ontario Soil and Crop Improvement Association to organize workshops during which producers are encouraged to conduct a broad assessment of their operation. Based on this assessment, an environmental plan is produced and submitted for peer review. Plans can cover a wide range of practices, but generally lead only to small improvement projects. And the financial incentive of a maximum grant of 1500 dollars is small compared to the grants allocated in Québec's PAGEF programme. Initially, the EFP was financed by a nine million dollar grant from the federal government's Green Plan. In April 1997, it was supplemented by a 5.6 million dollar grant from Agriculture and Agri-Food Canada's CanAdapt Programme to continue the programme until the year 2000. OMAFRA provides only agronomic expertise. In short,

the Ontario programme is more comprehensive in taking a look at the whole farm operation, but far less intrusive. In the summer of 1999, approximately 5700 of Ontario's over 40000 farmers have applied for an EFP grant.[13]

Québec and Ontario have a similar approach when it comes to Education and Extension. Both provinces have produced guides of good agricultural practices covering a wide range of agricultural activities. It should, however, be noted that Ontario's Best Management Practices project, under which the booklets were written, was funded by Agriculture and Agri-Food Canada, managed by the Ontario Federation of Agriculture (OFA), and supported by OMAFRA. MAPAQ has also encouraged the formation of groups for the collective hiring of environmental management advisors. This latter project was initially financed by the federal Green Plan and managed by the Conseil pour le développement de l'agriculture du Québec. Lastly, both provinces have a guidance policy on institutional arrangements for watershed management.

When these instruments are looked at as a whole, it would appear that each province has followed a distinct policy trajectory. In a fashion that is similar to France in the 1980s, the environmental effects of farming practices in Ontario were defined to be a problem of "agricultural" policy. Farmers were trusted as "stewards" of the land, an approach which protects against the erosion of prosperity by distributive measures. Agricultural waste was not covered directly in the *Environmental Protection Act*, with the province preferring to promote voluntary certificates of compliance with "guidelines" provided by the Ministry. Ontario's *Farm Practices Protection Act* is most concerned

with dispute settlement and lacks the regulatory add-ons found in Québec's similar law. As Table 6.2 shows, Ontario shies away from intrusive regulation. Instead, Ontario's agro-environmental policy has evolved further in the direction of voluntarism and self regulation with OMAFRA now promoting the voluntary, self-regulatory *Environmental Farm Plan Programme* as the province's main agro-environmental policy instrument. In a consultation paper released in 1996, Ontario's Conservative government stressed that traditional "command and control" regulatory approaches had to be replaced by economic instruments or "voluntary agreements which put the onus on industry to set targets and to coordinate, finance and practice measures."[14]

In contrast, agricultural pollution is covered with all other types of pollution under the basic environment protection act in Québec. In seeking to secure a clean environment, the Québec government prefers state, not self regulation. Thus, it regulates waste management directly and strictly, and Québec's agriculture ministry provides little encouragement to the rather narrow self-regulatory agro-environmental programmes of the Union des Producteurs Agricoles (UPA) and the Filière porcine. Nevertheless, Québec has broadened and deepened the reach of its agro-environmental policy several times since the 1970s, most recently in 1997. What is interesting, however, is that at each step of expanding state regulation, Québec farmers received significant compensation, a 388 million dollar programme in 1988 and a further instalment of 320 million dollars nine years later. Payouts to farmers in Ontario pale in comparison.

Table 6.2: Evaluation of Agro-environmental Policy Instruments Along Two Dimensions

Approach	Instrument dimensions	Québec	Ontario
Regulatory	Comprehensiveness	high	low
	Intrusiveness	high	low
Cross Compliance	Comprehensiveness	low	low
	Intrusiveness	low	low
Incentive	Comprehensiveness	low	high
	Intrusiveness	high	low
Education and Extension	Comprehensiveness	high	high
	Intrusiveness	low	low
Self-Regulatory	Comprehensiveness	low	high
	Intrusiveness	low	low

Explaining Policy Divergence

In order to explain continuing, indeed widening, differences between agro-environmental policies in Ontario and Québec, I examine the composition of the agro-environmental policy communities and the structure of the policy networks in the two provinces, as in the other two empirical chapters. I also devote a short section to policy learning.

It is thus institutional factors similar in nature to those explaining differences between France and the US that allow for an understanding of why Québec chose to strengthen regulations and increase subsidies in the face of increasing agro-environmental stress while Ontario chose to move further on a less intrusive self-

regulatory path. Interestingly enough, institutional factors helped Québec remain on its regulatory policy trajectory despite possible pressures to ease rules in the face of increasing regional and international competition. Institutional factors also explain Ontario's decision to remain on the self-regulatory route even in the face of the victory of a social democratic party in 1990, a party committed to a more intrusive state-centred policy approach.

Policy Community Membership

I argued in Chapter Four that distinguishing between the sub-government or the actor constellation and the attentive public of policy communities is particularly useful in political systems characterized by multi-level governance. Unlike France, and even the United States, agro-environmental policy making in Canada takes place, for the most part, at one level: the provincial level. Despite the absence of a system of separation of powers such as found in the United States, provincial political institutions are not unified to the point where negotiations among a number of policy participants can be avoided. In fact, many scholars have noted an evolution, even in single-level governance structures, from hierarchical decision making toward networking whereby relatively stable sets of private and public organisations negotiate in a horizontal, coordinating manner.[15] According to Scharpf, such structures are established to overcome some of the informational and motivational problems associated with hierarchical, top-down decision-making in the context of increasingly complex policy problems.[16] Thus, in Canada, where agro-environmental policy making takes place at the provincial level, one

can expect each province to have agro-environmental sub-governments composed of actors possessing specialized knowledge in the area of agricultural ecology. Therefore, provincial agricultural ministries are very likely to be members, but environment ministries, environmental interest groups, representatives of agricultural producers, and even municipalities and health departments are also potential members.

As illustrated in previous chapters, the composition of the sub-government or the actor constellation is likely to matter a great deal in determining whether solutions to agricultural pollution will centre on approaches protective of wealth generation for farmers or will also encompass the distribution of the costs and benefits of agricultural practices. Wealth generation concerns were important in France in the 1980s and remain important to the federal government in the US because the actor constellation features predominantly agricultural actors with convergent strategic positions. If concerns for the distribution of the costs and benefits of agricultural practices increased in France and figured predominantly in some American states in the 1990s, it is largely because of the inclusion of actors preferring command and control regulations into the sub-governments of the policy communities.

Interestingly enough, the situation of France in the 1980s bears some resemblance to that of Ontario while the country's situation in the 1990s is closer to that of Québec.[17] As was noted above, Québec's *Loi sur la qualité de l'environnement* was drafted to include agricultural waste within its purview. Accordingly, following its passage in 1972, the Ministère des Ressources Naturelles, the predecessor of the Ministère de

l'Environnement et de la Faune (MEF) created in 1979, began issuing certificates authorizing agricultural activities. Initially, demands were studied case by case, giving ministry officials a discretionary power deemed inappropriate by both farmers and several environmentalist groups. After a difficult political struggle between the MEF and the Union des producteurs agricoles (UPA),[18] the representative of the farmers, the government finally promulgated regulations on livestock operations, thereby streamlining the process of certification. By this point, then, it became clear that MEF had joined UPA and the agriculture ministry (MAPAQ) as a member of the sub-government of the agro-environmental policy community. And the MEF gradually became a highly capable member of that sub-government. In order to fulfill its responsibilities in issuing certificates for agricultural activities, it had to develop an expertise related to agricultural practices.

The agro-environmental policy community in Ontario took a different form. Ontario's *Environmental Protection Act* does not include "normal" farming practices under its ambit. Accordingly, core agro-environmental issues were considered a matter of "agricultural policy" and thus fell under the responsibility of the Ontario Ministry of Agriculture and Food. Not being directly involved, Ontario's Ministry of the Environment and Energy (OMEE) did not have to build an expertise in farming practices similar to its Québec counterpart. Certainly, the OMEE does not have a division with an expertise and an interest in this sector comparable to that of the Direction des politiques

des secteurs agricole et naturel of the MEF.[19] At best, then, it sits in the attentive public of Ontario's policy community.

These institutional differences have a related impact in civil society. In the 1990s the agricultural groups in both provinces were included in the sub-government of the agro-environmental policy community. It differs for environmental groups. When devising agro-environmental regulations for the province of Québec, the MEF asks for contributions from environmental groups, its natural allies. In turn, environmental groups have to prepare proposals based on solid expertise to face the potential opposition from farmers in the policy community, who are represented by their powerful peak association, the UPA. In contrast, because the *Environmental Protection Act* does not provide the MOEE with agro-environmental responsibilities, environmental groups in Ontario are not asked as often to contribute to agro-environmental policy-making. Therefore, they have less incentive to build an expertise in agriculture.[20] And in fact, no environmental group in Ontario has the organisational capacity to address issues of agricultural pollution (outside pesticides) comparable to the Union québécoise pour la conservation de la nature (UQCN) and other environmental groups in Québec.

Policy Network Structures

Thus far, I have demonstrated that the agro-environmental policy communities in Ontario and Québec differed with respect to the place of the environment ministry and environmental groups. I will now examine a little more closely the relationships between organized interests and the state, the key factor in determining policy network

structures.[21] I argue that when these positions are considered, the policy community in Québec takes a multipartite corporatist form. In contrast, the community in Ontario evolved over time from a pressure pluralist toward a bipartite corporatist structure. Accordingly, the crucial policy interchanges in Québec take place between the MEF, MAPAQ and the UPA, with environmental groups also playing an occasional sub-government role. In Ontario, by the early 1990s, the actor constellation includes a coalition of farm groups and OMAFRA. These different policy networks set the stage for quite distinctive policy interchanges within the respective sub-governments.

The Union des producteurs agricoles has a peak association structure similar to the FNSEA in France. It is the monopolistic representative of Québec's farmers since the adoption of the Loi des producteurs agricoles in 1972 which requires Québec farmers to pay dues to a single organisation.[22] In this respect, the UPA differs from the FNSEA which, we have noted, has competitor organisations seeking to represent agricultural producers. Virtually all agricultural commodities are represented within the UPA, organized as specialist federations.[23] Its comprehensive domain and monopoly position render it perhaps the most powerful farmers' association in North America.[24] With this monopoly position long established, the UPA has developed an ongoing working relationship with MAPAQ that permits the two organisations to work out common policy positions on many issues. In fact, one MAPAQ official said, "We are the spokesman for the UPA."[25] In comparing the relationship between UPA and MAPAQ with that obtaining between farm groups and Ontario's agriculture ministry, Skogstad writes: "The

Québec farm policy community is more integrated than Ontario's: its membership is characterized by greater closure, and restriction; members' real interdependence is greater; and they are more united in their view of the world.[26]

This concertative decision making style developed in agriculture was extended to the agro-environmental policy community. For example, in 1988, when the MEF published its proposal to make the regulation on livestock operations more intrusive, the Liberal government replied that the proposal could not become the policy of the government until a broad consensus was reached among the principal stakeholders. Therefore, with UPA objecting to the proposal, the MEF had to go back to work on a new and more comprehensive set of recommendations. Similarly in 1990, the MEF made public a project to realign the livestock operations regulation on a water-air-soil approach. Again the UPA objected, arguing that too much of the cost burden was being placed on livestock producers relative to growers of field crops. Despite additional proposals from MEF in 1994, the stalemate continued through the change in government. The new PQ government did not reject the consensual approach adopted by the previous government. As a matter of fact, the newly appointed Minister of the Environment created a "table de concertation" to study the 1994 project published by the MEF.[27] Out of this new round of discussions, a rather intrusive and comprehensive regulation was adopted, complemented with significant side payments to UPA.

When agro-environmental issues began to hit the policy agenda in Ontario in the 1980s, they entered a pressure pluralist policy network. On horizontal issues, Ontario

farmers have been represented by three general farm organisations--the Ontario Federation of Agriculture (OFA), the Christian Farmers Federation of Ontario (CFFO), and the National Farmers Union (NFU)--and a large number of commodity groups that enjoy more autonomy from the principal umbrella group, the OFA, than UPA's specialist federations. Skogstad notes that traditionally their relationships with the agriculture ministry were more informal, with their positions reflecting greater differences on what constitutes acceptable state intervention.[28] At the start of the 1990s, she concluded that the policy network featured a mix of usual pluralist advocacy politics and some concertation.[29]

The election of an NDP government in September 1990 pushed Ontario's farm organisations in a direction that was to lead ultimately to bipartite corporatism. When the NDP proposed to enact an Environmental Bill of Rights that would provide every citizen with the right to a clean environment, it became an important object of concern for the farming community. As an agricultural leader reported: "farmers own an important share of rural Ontario; so if the province was to have an Environmental Bill of Rights the community impacted the most would probably be farmers."[30] To address this concern, at the beginning of the NDP mandate, the newly appointed Minister of Agriculture formed an advisory committee of senior agricultural leaders that was to meet roughly once a month.

This committee was instrumental because it provided a forum favourable to the development of a common view among agricultural leaders on agro-environmental

policy. In the beginning, the work of the committee consisted of learning from a number of governmental agencies about their agro-environmental projects and then advising the minister on their appropriateness. In the process, however, these interchanges contributed to farm leaders reaching the conclusion that they were "spending too much time reacting to the environmental agenda of other groups, but not enough time addressing [their] own."[31] Accordingly, in July 1991, some 40 agricultural leaders met in Guelph to consult on a possible "environmental agenda" for the farming community. During the meeting the leaders decided to form a working group mandated to define such an agenda. Composed of officials from the OFA, the CFFO, and several commodity organisations, this group prepared the document *Our Farm Environmental Agenda* which was published in January 1992. It was signed by a coalition of four groups that shortly after formed the Ontario Farm Environmental Coalition (OFEC): OFA, CFFO, and two coalitions of commodity groups, AgCare (producers of field crops), and the Ontario Farm Animal Council (livestock producers).

Normally, one cannot expect coalitions like those that tend to be formed in the United States as a means for civil society actors to increase their power potential to have the same capacity for sustained policy participation as a "peak association" like the UPA or the FNSEA. Such coalitions draw their resources from separate contributions by members whose policy preferences may be quite changeable as we saw in the previous chapter.[32] In the Ontario case, however, an important change was introduced to the agricultural associational system shortly after the OFEC was formed. In 1993, the

Ontario government passed *The Farm Registration and Farm Organizations Funding Act* which required farmers to pay dues to an accredited general farm organisation, currently one of the OFA or the CFFO.[33] This law had two effects. First, it gave these organisations a kind of official public status and legitimacy that they did not have previously. Second, it added to their resources, especially the resources of the OFA, the larger of the two accredited groups. With this added capacity, the coalition gained a permanence and a force that enabled it to become a partner with OMAFRA in a bipartite corporatist network in the agro-environmental policy community. As such, OFEC has gradually ventured toward other agro-environmental policies, with the positions developed on issues such as water quality and nutrient management being sure indicators of a capacity for policy participation.[34]

Collective actors participating in corporatist policy networks have a higher "power potential" to realize their policy objectives than those working in pressure pluralist networks.[35] This added power potential was important because the NDP government had begun to push to open the agro-environmental policy community to broader environmental interests. Already in the 1980s, the environment ministry had identified agriculture as a major cause of water contamination in a series of studies. Accordingly, an important agricultural component was included in Clean Up Rural Beaches (CURB), a ten-year environmental programme of 60 million dollars, that the NDP government approved in 1991. It was expected to address the problem of beach closures due to bacterial contamination in rural areas. Through CURB, the Ministry of

the Environment began to emphasize the need for changes in farm practices. Therefore, the NDP began to build up a certain organisational capacity to address agro-environmental problems within the government's main environmental agency.

The OMEE was never able to penetrate the sub-government of the agro-environmental policy community, however, because the newly elected Progressive Conservative government stopped the process in its tracks. Shortly after the 1995 election, the government announced the premature termination of CURB. It then rapidly proceeded with a 33 per cent cut in the staff of the MOEE, which, according to interviewees, effectively deprived the ministry of any limited capacity it had to deal with agricultural pollution, outside pesticides. These actions by the newly elected Conservative government thus consolidated a bipartite corporatist policy network involving the Ontario Environmental Farm Coalition and OMAFRA, as the sub-government of Ontario's agro-environmental policy community.

Policy Learning

Hugh Heclo argues that policy makers build on successful past experiences when confronted with new problems.[36] I have argued that this type of policy learning tends to lead to incremental policy changes. Thus, it is not very surprising that the American federal government chose to revive conservation policies developed in the 1930s to tackle the problems of agricultural pollution of the 1980s. We saw that Québec's state-centred, intrusive instruments and Ontario's less intrusive and more self-regulatory

approach were the result of interactions in two quite different actor constellations, but policy learning still helps with understanding some of the background to these choices.

With "normal farming practices" and their environmental effects being considered a matter of "agricultural" policy in Ontario, the province's predisposition was to mandate the agriculture ministry to deal with any agro-environmental issues. In 1972, an agreement with the United States committed Canada to improving the quality of water in the Great Lakes and agriculture was early on identified as one of the sources polluting the Lakes. Adding to this concern, the Senate of Canada began pointing at problems of soil erosion in the 1980s.[37] As a result, agreements between the Ontario and federal agriculture ministries led to the launch of several federal-provincial soil conservation programmes in Ontario, programmes that created a self-regulatory capacity with Ontario farmers. The Soil and Water Environmental Enhancement Programme (SWEEP) initiated in 1986 and terminated in 1992 drew considerably on farmer participation. Even more important, Land Stewardship I and II (1987-1994), involved the hiring of a farm organisation, the Ontario Soil and Crop Improvement Association (OSCIA), to administer the programmes. With this self-regulatory capacity thus developed in OSCIA, it is not surprising that Ontario's farmers hired this same organisation to deliver the Environmental Farm Plan Programme. Moreover, in an actor constellation whose focus is on farmers' prosperity such as was natural with Ontario's bipartite corporatist network, self-regulation was bound to be attractive because of its greater compatibility with the objective of enhancing the province's agricultural economy.

A state-centred policy approach was more consistent with the policy path in Québec. In her examination of the farm policy community in Québec, Skogstad found a consensus on a statist approach that went back to the Quiet Revolution period.[38] Students of Québec politics have noted that the development of an interventionist state since the Quiet Revolution of the 1960s has encouraged the creation of an institutional structure in Québec which can be compared to that of some European countries.[39] Besides a dense state structure, Québec has an elaborate associational system notably characterized by strong labour unions that are matched by powerful peak associations representing business and agriculture.[40] In turn, the presence of these institutions has encouraged a concertative policy style. Noël writes that,

> "years of conflicts have left the labour unions and business strong and well organized to consider large compromises (...). In addition, historical disadvantages in Québec, its size and its fragile economy, have encouraged a search for consensus and a flexibility that often characterize small European countries."[41]

In short, a long experience with a statist approach to policy, providing that its application be negotiated in corporatist policy networks, is characteristic of Québec policy making. With this background, policy choices favoured some solution in the agro-environmental policy domain that drew on direct state regulation.

Summary

In both provinces, agro-environmental policy is negotiated between multiple actors seeking to realize their respective policy preferences. Scharpf alerts us to the possibility that differentially composed sub-governments may generate different modes of negotiation, depending on the relative prevalence of distributive or value-creation issues.[42] In Québec, where the agriculture ministry and the UPA face the environment ministry with allied groups (and sometimes the municipalities and their ministry), the mode appears encompassing including concerns for wealth creation of the distribution of the costs and benefits of agricultural practices. As a MEF interviewee said: "At the agriculture ministry, their mission is production while our mission is protection of the environment. It is thus normal that we discuss what standards we should have and it is also normal that the environment ministry propose more constraining standards than those suggested by the agriculture ministry."[43] Scharpf, however, contends that bargaining in a setting like Québec's can only succeed if side payments are permissible to a veto player.[44] We saw that the FNSEA in France was generously compensated for the adoption of severe regulations. Québec provides further support for Scharpf's argument. Evidence shows that as veto players MAPAQ/UPA[45] were able to obtain monetary compensations in exchange for intrusive state regulation.

In Ontario, the agriculture ministry and a coalition of farm organisations form the actor constellation. Here the mode of negotiation differs because the central question excludes distribution to narrowly centre on value-creation. Scharpf characterizes this

situation as "problem-solving."[46] An Ontario interviewee captures well the differences between the distributive bargaining and problem-solving dynamics:

> "The environment agenda is often ecosystem based or watershed based. What you do on farms has to be looked at in terms of the receiving body of water, looking to the common good of the watershed as a whole. By doing this, there may need to be some constraints on farm productivity . . . that could be offset by a grant, but we might expect the farmer to sacrifice productivity. In contrast, the agriculturalist agenda focuses more narrowly on single farm operations, trying to address enhancement of efficiency on the farm. Things that are done for the environment should be done at minimal cost to the farmer."[47]

In Ontario's sub-government, where both negotiating partners were focused on the "agriculturalist agenda," a policy solution that emphasizes less intrusion into farming practices becomes more likely. This situation is not without similarities to that of France in the 1980s.

A farm leader summarized well the close partnership that emerged between OMAFRA and the farmers' coalition. "The good part of it is the Ministry of Agriculture and Food has totally come on side. The Minister of Agriculture's environmental agenda is ours. We're working cooperatively."[48] The fact that a self-regulatory capacity had already been developed added to the attractiveness of the policy solution agreed upon. Another farm leader explained: "for many farmers, their biggest worry today is being

regulated to death, nickled and dimed to death with picky little regulations here, there and everywhere . . . they can't get on with the job of managing their own business."[49]

Conclusion

How does policy change in Canada translate into policy making performance? Quite clearly, the quasi absence of a federal agro-environmental policy allows important variations from one province to the next in environmental standards. Farmers are not faced with intrusive regulations in Ontario, while their counterparts in Québec are governed by such a policy regime. Nor are Ontario farmers given significant financial incentives to alter their farming practices in ways likely to improve the environment. This unevenness in the comprehensiveness and intrusiveness across two provinces with very similar agricultural production structures raises questions about the level of policy making performance in Canada. When these findings are compared with the combined contributions of the federal and state governments in the US, Canada clearly performs less well.

The central idea of this chapter, however, was to produce additional evidence supporting the thesis that institutions influence policy outputs. Because Ontario and Québec agricultures are similar and because farmers in both provinces directly compete against each other in an environment of market liberalism, pressure for policy convergence is greater than between the United States and France. Despite this pressure, both provinces' policies were found to sharply diverge and this divergence is consistent with the particularities of the institutional settings governing the formulation of agro-

environmental policies in each province. Bipartite corporatism favoured a more narrowly focused policy choice on self-regulation in Ontario, while Québec's multipartite corporatist arrangement created a bargaining situation between agricultural economic interests and those favouring more environmental protection. Such a bargaining situation led to a policy compromise that drew instruments from various approaches, while compensating producers for the economic costs incurred from the new policy regime.

Rather unexpectedly, however, this chapter forces me to recognize that similar institutional arrangements can produce different policy outputs and consequently different levels of policy making performance. Corporatism in Québec, as was the case in France, facilitated higher levels of policy performance. In contrast, corporatism in Ontario contributed to a lower level of policy making performance. Likewise, American federalism enabled a higher level of policy making performance than did Canadian federalism. I discuss the implications of these findings in the next chapter.

Endnotes

1. Agriculture Canada, *Growing Together* (Ottawa: Agriculture Canada, 1989), 1-2.

2. William D. Coleman and Grace Skogstad, "Neo-Liberalism, Policy Networks, and Policy Change: Agricultural Policy Reform in Australia and Canada," *Australian Journal of Political Science*, 30 (1995), 242-263.

3. Grace Skogstad, "Agricultural Policy," in G. Bruce Doern, Leslie A. Pal, and Brian W. Tomlin, (eds), *Border Crossings: The Internationalization of Canadian Public Policy*, (Toronto: Oxford University Press, 1996).

4. I consciously refer to "internationalization" meaning growing economic exchanges between states rather than "globalization". Globalization in the sense of transcending borders does not readily apply well to agriculture. For this distinction, see Jan Aart Scholte, "Global Capitalism and the State," *International Affairs*, 73: 3 (1997), 430.

5. Grace Skogstad, "The Farm Policy Community and Public Policy in Ontario and Québec," in William D. Coleman and Grace Skogstad, (eds), *Policy Communities and Public Policy in Canada: A Structural Approach* (Mississauga: Copp Clark Pitman Ltd., 1990), 59-90.

6. Members of the sub-government of a policy community participate directly in the formulation of policy. The attentive public refers to those who have an interest in the policy problem and may act as advocates for particular viewpoints, but who do not participate directly in policy formulation. See William D. Coleman and Grace Skogstad "Policy Communities and Policy Networks: A Structural Approach" in Coleman and Skogstad, (eds), *Policy Communities and Public Policy in Canada*, 25-26.

7. For the sake of simplification I have excluded government sponsored research which has increasingly sought to address agro-environmental problems since the early 1980s.

8. *Règlement sur la prévention de la pollution des eaux par les établissements de production animale.*

9. One of the purposes behind revising the *Loi sur la protection du territoire agricole* was to create more harmony between the protection of agricultural land and the objectives of municipal planning as defined by the *Loi sur l'aménagement et l'urbanisme*. On this problem see Jean Cimon, *Zonage agricole et développement urbain* (Montréal: Méridien, 1990).

10. In the Act "normal farm practice" is defined as "a practice that is conducted in a manner consistent with proper and accepted customs and standards as established and followed by similar agricultural operations under similar circumstances and includes the use of innovative technology used with advanced management practices" *Farm Practice Protection Act*, Article 1.

11. When OMAFRA began a series of consultations on amendments to the *Farm Practices Protection Act* in 1997, there was no indication of major changes in the orientation of the Act.

12. Under the *Ontario Building Code*, municipalities have to deliver building permits for any structure larger than 10 square meters, including manure storage facilities. When the structure is a farm building, the municipalities often require a project assessment by an agricultural engineer. OMAFRA's regional offices can provide this service. In certain cases, the Conservation Authorities have an advisory role for the issuing of municipal building permits. It should be noted that municipalities in Québec have a similar responsibility in delivering building permits for agricultural projects, yet only once the project has been certified by the MEF.

13. AgCare, "New Chair Named to Environmental Farm Plan Working Group," *Update*, Summer 1999, 3.

14. Ontario, *Responsive Environmental Protection: A Consultation Paper* (Toronto: Government of Ontario, 1996).

15. William D. Coleman and Grace Skogstad, (eds), *Policy Communities and Public Policy in Canada: A Structural Approach* (Mississauga: Copp Clark Pitman Ltd., 1990); P. Kenis and V. Schneider, "Policy Networks and Policy Analysis: Scrutinizing a New Analytical Toolbox", in B. Marin and R. Mayntz, (eds), *Policy Networks: Empirical Evidence and Theoretical Considerations*, (Frankfurt, Campus Verlag, 1991), 25-59; P. Hassenteufel, "Do Policy Networks Matter? Lifting descriptif et analyse de l'État en action", in P. LeGalès and M. Thatcher, (eds), *Les Réseaux de politique publique. Débat autour des policy networks*, (Paris, L'Harmattan, 1995), 91-108.

16. Fritz W. Scharpf, *Games Real Actors Play: Actor-Centered Institutionalism in Policy Research*, (Boulder: Westview Press, 1997). See Chapter 8 for a development of this point.

17. Some resemblances also exist with the US but France remains closer because of the presence of corporatism.

18. Jean-Pierre Kesteman en collaboration avec Guy Boisclair et Jean-Marc Kirouac, *Histoire du syndicalisme agricole au Québec: UCC-UPA 1924-1984* (Montréal: Les Éditions Boréal Express, 1984), 286-287.

19. It should be noted that the Ministère des Affaires Municipales (MAM) and Municipalities have also developed a capacity for policy participation as a result of the contradiction between the *Loi sur la protection du territoire agricole* and the *Loi sur l'aménagement et l'urbanisme*. During the process of revising the *Loi sur la protection du territoire agricole* and the regulation on livestock operations, the MAM exercised pressures for thorough environmental rules similar to those proposed by the MEF.

20. More often than not environmental groups have very limited resources. In Ontario a large share of these resources are devoted to building an expertise in the areas of nuclear energy, toxic substances, air pollution, and industrial pollution, that are problems for which environmental groups are more often consulted by the MOEE. Thus when an Environment official in Ontario was asked whether environmental groups address agricultural pollution, he replied, "Not that I am aware of. Among the briefings and letters to ministers that I have seen in the past year, environmental groups are absent." Interview, 12 February 1997. See also Mark Winfield, "The Ultimate Horizontal Issue: The Environmental Policy Experiences of Alberta and Ontario, 1971-1993,"*Canadian Journal of Political Science*, 27 (1994), 129-152.

21. See Coleman and Skogstad, "Policy Communities and Policy Networks," 26-29, and W.D. Coleman and Anthony Perl, "Internationalizing Policy Environments and Policy Network Analysis," *Political Studies*, (forthcoming).

22. Jean-Pierre Kesteman en collaboration avec Guy Boisclair et Jean-Marc Kirouac, *Histoire du syndicalisme agricole au Québec: UCC-UPA 1924-1984* (Montréal: Les Éditions Boréal Express, 1984), 270-272.

23. Kesteman, *Histoire du syndicalisme agricole au Québec*, 274.

24. Skogstad, "Farm Policy Community," 73-75.

25. Interview, 3 April 1997.

26. Skogstad, "Farm Policy Community," 69.

27. Noteworthy is the new filière approach adopted in Québec whereby commodities from input supply to processing are organized for concertation.

28. Skogstad, "Farm Policy Community," 69.

29. Skogstad, "Farm Policy Community," 78.

30. Interview, 13 March 1997.

31. Interview, 13 March 1997.

32. Scharpf elaborates on the different capacities for collective action of coalitions and associations in *Games Real Actors Play*, 54-56.

33. Farmers are permitted to request a refund from the organisation to which they chose to pay dues. They have to make the request within 90 days starting with the deadline to pay the annual dues. Otherwise, all Ontario farmers are required by law to belong to one of the accredited general farm organisations.

34. The activities of the coalition are well described on the Web site of AGCare: http://www.agcare.org/.

35. This point is developed in W.D. Coleman, "Banking, Interest Intermediation and Political Power: A Framework for Comparative Analysis," *European Journal of Political Research*, 26: 1 (1994), 31-58.

36. Hugh Heclo, *Modern Social Politics in Britain and Sweden*, (New Haven: Yale University Press, 1974).

37. Standing Committee on Agriculture, Fisheries, and Forestry, *Soil at Risk* (Ottawa: Senate of Canada, 1984).

38. Skogstad, "Farm Policy Community," 67.

39. Daniel Latouche, *Le bazar: des anciens Canadiens aux nouveaux Québécois* (Montréal: Boréal, 1990), 149.

40. William D. Coleman, "Le nationalisme, les intermédiaires et l'intégration politique canadienne," *Politique et Sociétés*, 28 (1995), 37-51.

41. My translation of Alain Noël, "Le chômage en héritage," in Alain-G Gagon ed., *Québec: État et Société* (Montréal: Québec/Amérique, 1994), 430.

42. Scharpf, *Games Real Actors Play*, Chapter 6.

43. Interview, 4 April 1997.

44. Scharpf, *Games Real Actors Play*, 128.

45. In 1988, it will be recalled, the Liberal government would not proceed with recommended policy changes from MEF because UPA and MAPAQ were opposed.

46. Scharpf, *Games Real Actors Play*, 130-132.

47. Interview, 12 February 1997.

48. Interview, 18 November 1992.

49. Interview, 13 November 1992.

Chapter Seven

Policy Making Performance in Comparative Perspective

In the three preceding chapters, I examined agro-environmental policy change in France, the United States, and Canada. Going back to the argument of Chapter Three, policy change can be used as an indicator of policy making performance. While performance cannot be inferred from policy convergence toward one single "best" approach, I contend that increases in intrusiveness and comprehensiveness are likely to have a positive impact on the environment, independent of the approach to which the policy instruments belong. In fact, I propose that an optimal solution is most likely to be a policy which involves a mix of instruments belonging to a number of different approaches, because only such changes can achieve policy intrusiveness and comprehensiveness without endangering the economic interests of farmers.

The first objective of this chapter is to determine what the policy changes which occurred in each of the three countries mean in terms of policy making performance. Clearly, my evidence shows that none of the three countries pursued a neo-liberal policy

agenda. What is less clear, however, is why the three countries differed in their levels of performance. France performed better than the United States, and the US, in turn, performed better than Canada. The second objective is to go back to those factors identified in Chapter Three as possible explanations for differences in levels of policy making performance. Finally, in noting that, on balance, all three countries performed well, I return to reconsider those theories which identified potential obstacles in the way of policy makers' successful performance.

Policy Change and Policy Making Performance

Of the three countries examined, France has changed its agro-environmental policy most extensively. After agricultural pollution was identified as a problem in the 1970s and then strongly reiterated in the Hénin report in 1980, the French government responded by adopting an educational approach, while rejecting emphatically regulations. By the 1990s, however, despite this clear decision in favour of education, regulations and subsidies had become central instruments within broader French agro-environmental policy. Taken as a whole, French agro-environmental policy had moved from narrow to comprehensive in scope, and from shallow to intrusive in depth, indicating a clear break in the policy path.

In the United States, policy change was less sweeping. The federal government has had a conservation policy for the agricultural sector since the 1930s. When the problem of agricultural pollution became more serious, the government increased the comprehensiveness of programmes, but kept levels of intrusiveness rather stable. In

addition, the government chose to remain with the same overall policy instruments and thus approach, suggesting a measure of path dependence. The situation was quite different at the state level where, up to the 1990s, governments had for the most part left the agro-environmental sector to the federal government. In the 1990s, however, states where agriculture is an important economic activity have adopted comprehensive and intrusive command and control policies. The degree of intrusiveness and comprehensiveness does vary from one state to the next, but all opted for some variant of the regulatory approach.

In Canada, the federal government left most of the policy making space in this sector to the provinces. In Chapter Six, I examined two provinces, Québec and Ontario, whose policies, unlike those of the American states, diverged quite significantly. Early on, Québec embarked on the regulatory route with rather intrusive instruments. More recently, policy reforms have deepened the level of intrusiveness and extended the comprehensiveness. The policy changes, however, are complemented by more legal protection of the rights of farmers to produce and by a generous programme of subsidies. In contrast, from early on, Ontario's agriculture was put out of the reach of command and control environmental policies, with the province preferring a voluntary and increasingly self-regulatory approach. While this strategy yielded more comprehensive instruments, it also avoided intruding significantly into farming practices.

What can be inferred about policy making performance from these changes? As we saw in Chapter 4, policy change in France was more significant than in the other two

countries. France also experiences problems of agricultural pollution more severe than those of the United States and Canada. Hence, the depth of the changes is a clear indicator of performance. It is not, however, an indication that France did "better" than the United States and Canada, if only because agricultural pollution is less severe in the latter two countries. Therefore, I base my argument about policy making performance in France, the United States, and Canada solely on the *direction* of change rather than its depth.

I have argued that because agricultural pollution has become a serious problem in all three countries, capable policy makers are those who have the capacity to develop an environmental policy for the agricultural sector. France, the United States, and the two Canadian provinces all performed well in formulating clear policies in that area.

Because agricultural pollution has increased in all three countries, their environmental policy for the agricultural sector should evolve in the direction of greater intrusiveness. In other words, each country's policy should have increased the level of constraint on farming practices over the years. Changes in that direction, I have argued, indicate high levels of policy making performance. The policy changes observed in the three countries suggest that differences exist in the capacity of policy makers to increase the intrusiveness of their agro-environmental policy. Naturally, these differences reflect on the overall level of policy making performance. In Chapter Four, I showed that the regulations adopted in France in the 1990s and the new Programme de maîtrise des pollutions d'origine agricole (PMPOA) were rather intrusive. In contrast, the US federal

government did not increase the intrusiveness of the agro-environmental policy very much. To be sure, the old Soil Bank programme was revived in 1985 under the name Conservation Reserve Programme (CRP), but we saw that the initial aim of the CRP, just as that of the soil bank, was more to subsidize farmers during a tough period than to change farming practices. The cross-compliance measures for their part had some teeth at the origin when first introduced, but then were significantly watered down in the 1990 farm bill. The American federal government responded to the increases in agricultural pollution mostly by increasing the range of agricultural practices covered under its agro-environmental programmes.

State governments acted differently. All states where agriculture is an important activity adopted intrusive regulations in the 1990s. This situation contrasts with that of Canada where significant differences exist from one province to the next. Beginning in the 1970s, Québec adopted intrusive regulations on a scale similar to those found in France and the American states. Conversely, Ontario's 1990 agro-environmental policy does not require or encourage important changes in farming practices. These variations from one province to the next are indicators of a lower level of performance in Canada than in the United States.

Research has shown that environmental policies with a narrow focus encourage the transfer of pollution from one medium to the next. Conversely, comprehensive policies are likely to improve the quality of the environment. Thus as suggested in Chapter 3, policy changes that increase policy comprehensiveness are indicators of high

policy making performance in the environmental sector. In all three countries, policy changes have included an increase in the comprehensiveness of the environmental programmes or regulations. In France the PMPOA subsidizes a large range of practices and even the CORPEN has come to encompass pesticides in the 1990s. In the United States, in 1998, the CRP was enhanced to cover livestock farming better. The policies adopted by the states have also been rather comprehensive, comprising a mix of measures addressing water and air pollution. In Ontario, the Environmental Farm plans, even if they incite minor changes, do nevertheless cover a wide array of agricultural practices. In Québec, regulations were adopted to protect each of water, air, and soil.

Finally, when policy makers can rely on policy instruments that do not belong to one single approach, I have argued that they are more likely to be able to adopt an environmental policy that is comprehensive and intrusive, but which does not endanger the economic interests of farmers. In other words, changes that embrace a wider array of instruments are further indicators of high policy making performance. Here again, differences were found between the three countries. In France, the favourite instruments in the 1980s, the educational instruments, were not sacrificed when policy makers began making deeper changes to agro-environmental policy in the 1990s. On the contrary, the comprehensiveness of CORPEN was slightly increased. The most surprising change that occurred in France was the adoption of rather intrusive regulations. It is important to note, however, that those regulations were accompanied by a generous programme of subsidies which compensated farmers for the economic harm such policies might

engender. Quite clearly, policy makers in France were able to rely on a mix of instruments to protect simultaneously the environment and the interests of farmers.

In contrast, the federal government in the United States relied for the most part on the provision of positive incentives, which, if unproblematic from the farmers' point of view, might have gained in efficiency had they been complemented by regulations. The opposite situation exists at the state level where regulations are favoured almost exclusively over other types of instruments. Taken as a whole, however, the United States embraced an interesting mix of instruments.

In contrast, from a similar panoramic perspective, Canada does not show a comparable mix of instruments. Because of the quasi absence of the federal government in the agro-environmental sector, important disparities exist from one province to the next. While Québec policy makers appear able to adopt intrusive policies which also take some account of the economic interests of farmers, Ontario relies on non intrusive self-regulations.

In short, the performance of France's policy makers was higher than that of American policy makers because the former were able to adopt intrusive instruments simultaneously with others that reduced the costs to farmers of increased environmental protection. Taken as a whole, United States' governments utilize an interesting mix of instruments, but the capacity of policy makers at each level of government remains limited. Under these conditions, coordination is more likely to arise as a problem. Nevertheless, United States' governments performed better than those in Canada where

important disparities exist from one province to the next. While the level of performance of Québec policy makers compares favourably with their counterparts in France, Ontario policy makers appear to have a more limited capacity to protect the environment. This argument is summarized in Table 7.1.

Table 7.1 does indicate, however, that policy makers have performed better than might be expected. Fifteen out of the twenty cells in the table display positive results. This score is clearly much higher than several of the theories examined in Chapter 3 might lead us to expect. I will come back to the question of explaining the relatively successful performance of governments after discussing the factors that have enabled France to perform better than the United States and the United States better than Canada.

Table 7.1: Comparative Policy Making Performance

Indicator/country	France	The United States		Canada	
		federal	states	Québec	Ontario
Development of an environ. policy for agriculture	Yes	Yes	Yes	Yes	Yes
Increases in intrusiveness	Yes	No	Yes	Yes	No
Increases in comprehensiveness	Yes	Yes	Yes	Yes	Yes
Move toward a mixed approach	Yes	No*	No	Yes	No

*Taken as a whole, the United States has increasingly had instruments that belong to a mix of approaches. This mix may, however, suffer from a lack of coordination.

Explaining Differences in Policy Making Performance

In the three preceding chapters, I have attempted to provide explanations for the changes that have occurred in each of the countries. The characteristics of policy communities turned out to be significant factors explaining the orientation of the policy changes and by extension policy making performance. Going back to those characteristics, I now try to assess the validity of the proposals on policy making performance that I have reviewed in Chapter Three. I begin with an explanation of the difference between France and the United States.

France Versus the United States

Again, I argue that the performance of France has been slightly better than that of the United States because the country was able to adopt simultaneously intrusive command and control policy instruments and generous subsidies to compensate farmers for lost revenues. In Chapter Five, I argued that one of the most striking differences between France and the United States is the structure of the policy networks. In the agro-environmental sector, the French network is corporatist, while policy networks in the United States are pluralist. We have seen in Chapter Three that important policy changes, can occur rather rapidly in pluralist networks after periods of stability, a situation referred to as punctuated equilibrium. In contrast, pressures for policy change tend to be more constantly mediated in corporatist networks. Following Streeck and Schmitter, I have proposed that this situation is preferable from the point of view of policy making performance.[1] Policy changes in corporatist networks are indeed more

likely to draw from a variety of approaches and are less likely to be influenced by fashionable ideas than those in pluralist networks. Now, is this a sufficient explanation for the difference in policy making performance between the United States and France?

It appears that corporatism had the expected mediating effect in France, but pluralism in the United States failed to produce punctuated equilibria in the agro-environmental sector. The European Union (EU) directive on the need to control water pollution by nitrate clearly contributed to legitimize the French Ministry of the Environment, which, prior to the 1990s, had not been part of the actor constellation. Given the background of the personnel of the water division, it was natural for the ministry to propose addressing the problem of agricultural pollution using command and control regulations. Because of the corporatist structure that has traditionally governed the relationship between the state and the Fédération nationale des syndicats d'exploitants agricoles (FNSEA), the EU pressure on France to change its agro-environmental policy was not sufficient to discredit farmers. The FNSEA continued to participate in the formulation of policies for the agricultural sector, including an environmental policy. Naturally, the preferences of the Ministry of the Environment regarding this policy differed from those of the FNSEA, the group preferring a more voluntary and less intrusive approach. In other words, the pressure for change modified significantly the negotiation setting in the agro-environmental sector, but did not dismantle it.

As one might expect of negotiations which involve actors with such different preferences, they were long and rather noisy. More significantly, however, actors had to trade instruments belonging to a mix of approaches in order to reach an agreement on a policy. The farmers accepted the intrusive regulations of the Ministry of the Environment in exchange for a generous programme of financial aid targeted at the required agro-environmental investments. In other words, the corporatist structure did respond to the pressure for environmental policy change, but not without finding some accommodations for the farmers. The corporatist structure in France facilitated the negotiation of an intrusive and comprehensive environmental policy for the agricultural sector, but one that also does not endanger the economic interests of farmers.

In theory, the emergence of ideas on non-point source pollution in pluralist settings, like those at the federal level in the United States, should legitimize actors demanding a stringent environmental policy for the agricultural sector while discrediting farm groups' demands for a voluntary policy. Accordingly, policy makers should be relatively free to adopt rapidly an intrusive policy for the sector, a policy which disregards the economic interests of farmers. Such was not our finding, however. It appears that what Jenkins and Sabatier call "learning across coalitions," a type of learning which should encourage important policy changes, is more likely to occur in pluralist settings.[2] Through a variety of exchanges with other actors, the National Pork Producers Council (NPPC) learned that it was in its interest to accept a certain degree of environmental command and control regulations. The change in the preference of the

group certainly enlarges the possibilities of forming coalitions powerful enough to exert some influence on policy makers. In contrast, because the FNSEA in France is involved in a corporatist setting, the group does not need coalition partners: the participant status of the group suffices to direct policy in its preferred direction. Faced with different institutional incentives, the FNSEA is unlikely to change its policy preferences to the extent they were changed by the NPPC.

Under these circumstances, it may appear surprising that policy change in France was more profound than in the United States. We have already seen how major policy changes can occur in corporatist settings despite the stability in the preferences of the actors. Pressure for change legitimizes new actors, thereby modifying the roster of participants in negotiations. What may be more puzzling at this point is that the American federal government did not change its policy more. The American federal government, I argue, was locked on a policy trajectory because of the strength of the United States Department of Agriculture (USDA). The USDA began administering a conservation policy in agricultural areas in the 1930s. Since those years, the Natural Resources Conservation Services (NRCS) has had the opportunity to develop an expertise in the agro-environmental sector unsurpassed by the other agricultural departments of OECD countries. Thus, it appears difficult for policy makers in Washington to ignore USDA in making changes to the country's agro-environmental policy.

In contrast to the United States Environmental Protection Agency, a regulatory enforcement agency, the favourite approach of USDA, a service agency, has traditionally been to rely on the provision of financial incentives and advice which do not intrude significantly into the modern farming practices the department incidentally had helped to develop. This approach naturally excludes all intrusive command and control policies. Thus, USDA effectively prevented the adoption of a mix of policy instruments belonging to different approaches. Policy change occurred incrementally, as USDA officials learned about aspects of the policy area which posed no threat to the department's core beliefs.[3]

To an extent, the situation at the federal level in the United States confirms Pierson's prediction regarding policy feedback locking in past policy choices.[4] The American conservation policy of the 1930s contributed to the development of a significant agro-environmental expertise in the USDA. In turn, bureaucrats oppose resistance to any policy change that might disturb their work significantly. For example, USDA officials refuse to become regulation enforcers. This situation might suggest, however, that lock-in effects in pluralist settings are most likely to originate from state actors, giving credence to statist theories.[5] Bureaucratic strength provides powerful explanations for policy outcomes in these settings.

Beyond the institutional arrangements at the meso level, the form of state differs between France and the United States. I have argued in Chapter Three that the American setting is closer to the dual federalism ideal type while the European setting conforms to

interlocking politics models. These institutional arrangements are likely to enhance the capacity of policy makers in different ways. Dual federalism encourages policy learning by providing opportunities for experimentation, while interlocking politics models enlarge petitioning strategies whereby policy makers can escape the collective action problems that occur in their own setting. The literature nevertheless suggests that the United States' federal arrangement should be more conducive to high performance than the interlocking politics of the European Union. European policies attempting to break lock-in effects at the member state level would be limited in their efficiency because the responsibility for policy implementation lies with domestic actors.[6]

This study raises questions about some of these assumptions. American dual federalism did not produce policies more innovative than those found in the European Union and sub-national governments did not appear particularly willing to bear the cost of policy experimentation. In addition, given the path dependence pattern at the federal level, diffusion upward from the states may be problematic if policy experiments were to occur.

Second, the interlocking arrangements of the European Union turned out to be an important source of pressure for policy change in France. As shown in Chapter Four, unhappy with the shallow agro-environmental policy of the country, the French ministry of the environment successfully used the European Union to "win" in Paris. We described how the nitrate directive legitimated the ministry of the environment as a participant in the agro-environmental policy community. With this change in the sub-

government of the domestic policy community, profound policy changes resulted. In other words, the effect of Europeanization might not come directly on policy outputs, but on the structures of the strategic interactions taking place in domestic settings. Theories focussing on the implementation of European directives, this study suggests, may have neglected the extent to which the European Union has transformed policy communities and thus policy making at the member state level.[7]

In summary, France performed at a higher level in the agro-environmental sector for two reasons. First, policy formulation at the European Union level created new pressure at the domestic level for resolving a collective action problem that until the 1990s had frustrated policy change in the direction of more intrusiveness. Second, this pressure was mediated by the presence of a corporatist setting in the agricultural sector which allowed a policy compromise that improved policy, while providing economic compensation for farmers. In contrast, the lower performance of policy makers in the pluralist setting of the United States is attributable to a lock-in effect arising from the strength of USDA in the agro-environmental sector. These findings suggest that in some circumstances at least, policy makers in corporatist settings may possess a greater capacity to adapt policies to changing circumstances than those working in pluralist settings.

The United States Versus Canada

In the above discussion, I have focussed on comparative weakness in the policy performance in the United States. Quite clearly, however, the American performance was also marked by sufficient success to distinguish its performance from that in Canada.

We saw above that pluralism rather than federalism facilitated policy learning in the United States. Unlike what some students of federalism suggest, the institutional setting did not prove to be particularly conducive to policy experimentation.[8] This is not to say that American federalism is irrelevant to policy performance. Because the United States is a federation, environmentally concerned actors had the option to petition state governments after being confronted with the policy feedback locking in past policy decisions at the federal level. Where such options were taken up, particularly in more farm-oriented states, governments were pushed to adopt more intrusive regulations.

Interestingly enough, the strength of the USDA pre-empted the development of an agro-environmental capacity in state agricultural departments. Thus, state agricultural departments had never locked themselves into the use of voluntary instruments as USDA had done at the federal level. At the same time, pressures arising out of social learning about the impact of non point source pollution brought added policy making legitimacy for state departments of the environment and natural resources. With this new legitimacy, these departments formulated environmental policies for the agricultural sector, which have utilized heavily command and control instruments. The preference

for these instruments is not at all surprising given the state environment departments' traditional role of regulation enforcement rather than service provision.

Also noteworthy is that where the attentive public allowed it, the adoption of intrusive command and control policies was a sudden and swift process that sometimes ignored the economic interests of the farming sector, an outcome more possible in a pluralist than in a corporatist network. In North Carolina for example, where independent farmers are fewer relative to corporate operations, a moratorium on the growth of the hog industry was adopted, a measure that harms the viability of that industry in the state. It should be added, however, that USDA programmes can compensate for some of the economic losses suffered by American farmers from these rather stringent state environmental regulations.

In short, dual federalism, like interlocking politics systems, can produce positive sum games. When policy feedback prevents a government at level X from formulating policy changes to raise performance levels, concerned actors can always petition the policy makers at level Y. In the absence of policy duplication, when both levels of government have made different choices of policy instruments, the concerned actors might expect some success in obtaining a policy at level Y that complements the existing policy at level X.

What would seem important for policy change in dual federalist systems then is policy activity at both levels of government. In contrast to the United States, the federal government in Canada has largely absented itself from the agro-environmental sector and

provinces have sufficient policy authority that they can take policy in varying directions. Québec has clearly moved its policy in a direction that I characterize as high policy making performance, while Ontario chose not to adopt intrusive agro-environmental instruments. Faced by the choice of shallow voluntary instruments in Ontario, one might have expected those actors concerned by the quality of the environment to petition the federal government. Certainly, the option must have been attractive if only because the federal government had not committed itself to any particular approach in the agro-environmental sector. All the evidence suggests, however, that the federal government had no interest in responding to such a request.

Unfortunately, I have not conducted extensive empirical research to develop an explanation for the quasi absence of a federal agro-environmental policy in Canada. The research that I conducted focussed, for the most part, on Ontario and Québec. Nevertheless, the existing literature on environmental policy in Canada hints at some explanations. Because the costs of environmental policies are concentrated on industry while the benefits are diffused among all users of the environment, Harrison argues that the Canadian federal government--as any other government would--has tried to escape its responsibilities in the environment sector as much as public opinion has allowed it. She goes on to suggest that the low capacity of the ministry of the environment in policy formulation made it easier for the federal government in Canada to escape its responsibilities.[9] Another study of the federal ministry of the environment concludes that

> "the DOE [Department of the Environment] ultimately failed to convince the political centre and other departments that environmental issues were real and threatening their own continuance -- that they were not just public opinion and the views of environmentalists. The DOE started the 1990s buoyed by the Green Plan but still facing a phalanx of ministers and policy mandarins who felt that the environment / economy was a trade-off. It had not made a convincing case in the Ottawa system that the environment had moved from an amenity concern to a vital issue."[10]

Under these circumstances, it is not surprising that any Ontario actors seeking a federal agro-environmental policy to complement the shallow provincial policy were unsuccessful. Studies suggest that the federal ministry of the environment is rarely a participant in policy communities, a position similar to that of its Ontario counterpart which did not participate in the sub-government formulating the province's agro-environmental policy.

In understanding the weak federal role in this policy area, it is also useful to compare the Department of Agriculture and Agri-Food in Canada with the USDA. A central difference between the United States and Canada rests in the low capacity of Agriculture and Agri-Food Canada in the agro-environmental sector. We saw that the agro-environmental capability of the USDA can be traced back to the dust bowls of the 1930s, storms that also afflicted Canada. In contrast to Canada, however, the conservation policy of the United States became a central one after the Supreme Court

decision of 1936 struck down the Agricultural Adjustment Act of 1933. In reaction to this decision, the Roosevelt administration and Congress began using federal powers over conservation to construct policy instruments that also provided income support to farmers. With both the USDA and farmers content with this approach, USDA continued to strengthen its agro-environmental capacity well beyond the 1930s.[11] Although the dust bowls in Canada forced a shift in the efforts of federal research centres and extension services, the conservation policy was never a major agricultural policy instrument as the Canadian constitution endows the federal government with the power to directly support farmers' income. Thus, the conservation policy adopted during the 1930s was quickly abandoned without particular opposition by farmers after the threat of soil erosion was past. Agriculture and Agri-Food Canada, therefore, did not have the same opportunity as the USDA to develop a strong expertise in the agro-environmental sector. In short, with a ministry of the environment rarely participating in policy formulation and an agricultural ministry endowed with a low capacity in the agro-environmental sector, the Canadian federal government never embarked upon putting in place a significant agro-environmental policy.

This study confirms other findings that highlight the difficulty in drawing a straight cause and effect relationship between federal institutions and public policy.[12] I have showed in this dissertation that multi-tiered settings not only take different forms, they interact in varying ways with policy networks and bureaucratic arrangements in producing policy outputs. Without a corporatist arrangement at the domestic level, the

multi-tiered system of the European Union would not have facilitated a higher policy making performance in France than in the United States. And without the particular distribution of bureaucratic capabilities in the United States, American federalism might not have led to a higher performance than Canadian federalism.

Québec Versus Ontario

Overall, the United States' performance is higher than that of Canada. As Table 7.1 indicates, however, within Canada, Québec's performance is comparable to the high performance of France while that of Ontario comes closer, at best, to the lower performance of the American federal government. Corporatism, it will be recalled, was found to be the most important factor explaining the difference between the United States and France. Both, Québec and Ontario, have corporatist arrangements. Why then the difference in performance?

Again, the participation of civil society actors in policy formulation distinguishes corporatist from pluralist arrangements. Policy formulation in corporatist settings tends to create opportunities for negotiation or concertation among the participants.[13] The Canadian situation teaches us, however, that corporatist arrangements are not all alike. The corporatist arrangement in Ontario is far less encompassing than that of Québec. To understand this difference, it is useful to go back to the conditions leading to the creation of these settings. In 1990, the New Democratic Party (NDP) was elected to form a majority government in Ontario after having promised to take the environment seriously. In this context, it was natural for the ministry of the environment of the province to

expect to play a larger role in policy formulation. Thus, the ministry, as well as other actors, began elaborating an environmental agenda, including one for the agricultural sector. In reaction to these circumstances, farm groups organized themselves into a coalition whose purpose was to increase the influence of farmers in the formulation of a new agro-environmental policy for the province. Helped by financial resources and by the misfortune of the NDP government, the coalition was able to go far beyond this objective. First, it gained the status of participant in the formulation of the province's agro-environmental policy. Second, it was able to obtain a network structure that leaves the ministry of the environment outside the constellation of participants. In short, the corporatist structure of Ontario results from farmers' desire to increase their power in the agro-environmental sector. Helped by circumstances, they were able to obtain a structure that excludes actors whose policy preferences sharply differ from theirs.

In contrast, since the early 1970s, Québec has had a corporatist arrangement in the agricultural sector and its creation can be understood as part of a broader trend, dating back to the Quiet Revolution, to engage state and civil society actors in collaborative consensus-building before making important policy decisions.[14] Here, the rationale for corporatism is to increase the legitimacy of policy decisions.[15] Decisions whose formulation has involved the leaders of groups which represent civil society are understood to be more likely to receive the support of the population. Admittedly, the end result is the same as that in Ontario: the power of those included in the network will be higher than that of those excluded.[16] Nevertheless, a corporatist arrangement whose

function is solely to increase the power of some actors differs from one aimed at increasing the legitimacy of public policy decisions. The former will be most effective at performing its function when it is exclusive, while the latter will be most effective when its membership is more encompassing. By excluding the ministry of the environment, the corporatist setting in Ontario was successful at increasing the power of farmers while the inclusion of the ministry of the environment in the Québec setting can only raise the legitimacy of policy decisions.

In fact, when it became self-evident that agriculture was a significant source of pollution, the participation of the ministry of the environment in the formulation of an agro-environmental policy in Québec was not open to question. Helped by the mandate it received under the *Loi sur la qualité de l'environnement*, the ministry was immediately included as a participant. Policy makers reasoned that the absence of the ministry of the environment in the formulation of an agro-environmental policy for the province would render the effort simply illegitimate. Because of the differences between the policy preferences of the ministry of the environment and those of the Union des Producteurs Agricoles (UPA), the possibility of a deadlock was often invoked. Despite this possibility, the government kept insisting on the importance of achieving a consensus among the rather broad array of policy participants. In short, functional differences led to the creation and maintenance of a more encompassing corporatist arrangement in Québec than in Ontario.

What does this imply in terms of policy making performance? A less encompassing corporatist network will encourage strategic interactions favouring the adoption of a narrower policy whose instruments are unlikely to be drawn from a variety of approaches because the participants have convergent preferences. Because the Ontario network benefits farmers at the expense of broader environmental interests, the province's agro-environmental policy is not only narrow, but also rather shallow. Conversely, an encompassing corporatist network will encourage strategic interactions favouring the adoption of policy instruments that include a mix of approaches because participants' policy preferences are likely to differ. In Québec, the ministry of the environment was able to obtain intrusive regulations while farmers obtained some compensation in the form of financial incentives. In short, in the agro-environmental sector, encompassing corporatist arrangements are likely to produce better results.

This dissertation shows that institutions matter. It may also serve as a solid warning against the temptation to attribute deterministic effects to certain types of institutional arrangements. American and Canadian federalism produced different results, just like corporatist arrangements in Québec and Ontario encouraged strategic interactions leading to the adoption of divergent policies. Beyond the variations in policy making performance discussed in this section, it appears important to note as well that, generally speaking, the three countries' performances were at a higher level than what a number of theories would have led us to expect. I shall now turn to this question.

Pessimistic Predictions About Policy Makers' Performance Confronted to Reality

Fifteen cells out of the twenty cells contained in Table 7.1 display positive results. In all three countries an environmental policy for the agricultural sector was adopted and each country's policy was comprehensive. In short, unlike what an important segment of the political science literature suggests, policy makers do appear effective in finding solutions to problems.

Agenda setting naturally always precedes policy changes. Therefore, agricultural pollution had to become a political problem before participants began formulating an environmental policy for the agricultural sector. But Kingdon warns that the seriousness of problems, while a necessary condition, is not sufficient to guarantee that they will be placed on the political agenda.[17] He adds that problems, policy alternatives and political conditions are not linked in a systematic way. Following this reasoning, agricultural pollution would be placed on the agenda only if policy entrepreneurs were capable of taking advantage of the opening of windows of opportunity on those rare occasions when the problem stream, the policy stream, and the political stream come together. In other words, Kingdon's theory suggests, agricultural pollution stands large risks of been left unattended. At best, the problem might appear randomly on the political agenda of one or two of the countries.

Because agricultural pollution appeared on the political agenda of all three countries approximately at the same time, one might question the idea that problems are independent of policy alternatives and of political conditions. The empirical evidence

gathered in this study suggests that the emergence of serious problems encourages the creation of favourable political conditions and the drawing of policy alternatives. The level of agricultural development in France, the United States, and Canada gave rise to serious environmental problems that policy makers simply could not ignore. In turn, the seriousness of the problem, as well as the political conditions it created, activated those actors Kingdon calls policy entrepreneurs. Certainly, this latter scenario is more consistent with our finding that all three countries adopted an environmental policy for the agricultural sector. It also sees policy makers to be more in control of the policy process than Kingdon's scenario.

Once a problem is placed on the political agenda in this era of big government, policy makers often have to contend with existing policies when they begin to formulate new policies. These existing policies, Pierson argues, produce policy feedback that often renders the formulation of significant policy changes rather difficult.[18] Any new policy for agriculture appears rather vulnerable to lock-in effects because past policies for this sector encouraged the formation of powerful policy networks. And we indeed saw that under certain institutional conditions, policy feedback did lock in past policy choices. The strength of the USDA in the agro-environmental sector is shown to be a clear obstacle to a change in policy approach and the same can be said of the bi-partite corporatist setting in Ontario. We also found more situations where lock-in effects were overcome. The encompassing corporatist networks of France and Québec turned out to be conducive to policy change. Even in the United States, the distribution of

bureaucratic capabilities within the country's pluralist settings permitted "decentralized" policy changes. States adopted policy instruments that belong to an approach that contrasts with that favoured by the federal government. Thus, despite the resistance to change from the USDA, some complementarity of policy approaches did come about in the American federal system.

Policy designs can either concentrate costs and disperse benefits or concentrate benefits and disperse costs. More significant changes are possible, Pierson argues, when prior choices reflect the former policy design because cost concentration encourages the organisation of groups demanding change. The same logic naturally implies that the new policies are most likely to involve a design that concentrates benefits. In other words, policy change in the agro-environmental sector, if at all possible, is likely to be away from command and control regulations and toward subsidies and even education programmes. Institutional settings, however, rarely allow policy makers to follow this strategy. Sure, this logic might have contributed further to locking-in the American federal policy on the subsidy approach, but it did not prevent state governments from adopting intrusive regulations. In Canada, the federal government appears to have tried to avoid adopting policies that concentrate costs, but the federal setting permitted Ottawa to escape responsibilities rather than relying on policy designs that concentrate benefits. In brief, policy feedback is only rarely an obstacle to high policy making performance.

That policy feedback rarely prevents significant policy changes should be no surprise to those who argue that the political environment of the 1990s has been

conducive to policy change. Some of them may nevertheless be surprised at the high performance of policy makers. First, I have argued in Chapter Three that political parties which win elections on an ideologically motivated broad plan for change might orient agro-environment policy change away from the directions indicative of high policy making performance. Empirical evidence however suggests that parties' contribution to policy change is small and certainly not always harmful to policy making performance. In France, in the early 1990s, the Socialist Party helped the ministry of the environment to use Brussels against ministries opposed to its point of view. In contrast, the election of the Gaullists to power in the National Assembly in 1993 contributed to securing the position of farmers in a policy community where environmental actors had become participants. Again, by 1993 the ministry of the environment had gained, through the EU, the capability to require farmers to abide by intrusive regulations. Thus, political parties somewhat contributed to the French performance. In the United States, since 1994, the Republican majority might have prevented the Clinton administration from using Congress in order to obtain a deeper reform of the country's agro-environmental policy, thereby strengthening the lock-in caused by USDA. It is very unlikely, however, that a Democratic Congress would have been able to ignore the expertise of USDA in formulating changes. If Ontario can serve as an example, the NDP was never able to pursue an environmental agenda for the agricultural sector against the powerful actors of the policy community. In short, party changes should not be regarded as a serious impediment to high performance.

Moving from political parties to policy paradigms,[19] I argued in Chapter Three that a possible consequence of paradigm shifts might be to discourage the adoption of instruments that belong to a variety of approaches. Policy makers influenced by the new ideas might be constrained to ignore proposals arising out of marginalised or yet-to-be-important epistemic communities. For the agro-environmental sector, I spoke of the emergence of the non-point source paradigm which provided an explanation for the poor quality of the environment despite years of environmental policy. Largely formulated by agricultural systems analysts, the paradigm stresses the inadequacy of direct discharge regulations and favours the adoption of positive incentives and education instruments for the agricultural sector. Clearly, this paradigm shift has brought non-point source pollution to the attention of policy makers. Institutional settings, however, including pluralist settings, have rarely allowed policy makers to adopt wholesale the proposals of agricultural system analysts. Wherever environmental agencies are participants in policy formulation, command and control regulations were adopted. In fact, paradigms are not sufficient to significantly influence the policy preferences of environmental agencies. These agencies are enforcement agencies as opposed to service agencies and as such are firmly committed to command and control regulations. Therefore, where environmental and agricultural actors participated together in the formulation of policy changes, several approaches contributed to the policy outputs, despite the pressure exercised by the non-point source paradigm.

We have already seen that multi-tiered systems, whether they interlock politics between levels or take a dual form, can enable high policy making performance. Only the Canadian system failed to encourage such performance, but it did not prevent it. Institutional conditions enabled Québec to adopt intrusive regulations next to Ontario, where regulations are shallow. Clearly, no race-to-the-bottom occurred, nor were joint decision traps observed.

Lastly, I suggested in Chapter Three that a risk associated with international trade regimes, and more generally with the internationalization of the economies, might constrain policy makers to adopt shallow and narrow agro-environmental policies. "Exogenous easing," Frieden and Rogowski's analysis suggests, will encourage the formation of powerful coalitions of export oriented farmers ready to resist the adoption of any policy harmful to their competitive advantage.[20] While it may be true that exogenous easing encourages the formation of export oriented coalitions, this study shows that these coalitions have to penetrate and come to dominate existing policy networks which often comprise actors for whom the adoption of intrusive regulations is far more important than the protection of comparative advantage. The international trade regimes and internationalization did not significantly constrain policy makers in the agro-environmental sector.

Most of the time, policy makers were able to overcome the obstacles to high policy making performance in the agro-environmental sector. Agenda setting was unproblematic. Most policy networks were more conducive to policy change than neo-

institutionalists would have predicted. Certainly, they mediated potentially harmful pressure for change. In short, this study does not support pessimism when it comes to the capacity of policy makers to address problems.

Conclusion

The objective of this dissertation was to examine how well policy makers could respond to problems that became serious. I chose the problem of agricultural pollution in France, the United States, and Canada for three reasons. First, the level of development of the agricultural sector in these three countries has engendered serious problems of agricultural pollution. Second, it appears appropriate to study problems that fall into the broader sector of agriculture because of the importance of the involvement of the state in that sector. Third, the institutional arrangements for the agricultural sectors of France, the United States, and Canada differ significantly. From a more theoretical point of view, this is an important concern. In contrast to neo-liberal thinking which argues that state intervention causes more problems than it solves, I contend that the actions taken by policy makers to address the problem of agricultural pollution are generally likely to result in environmental improvements.

Beyond this general point, institutions produced differences in policy making performance between the three countries. This dissertation nevertheless shows that it is difficult to establish a clear causal relationship between institutions and policy outcomes. Corporatism clearly contributed to the good results obtained by France and Québec, but also to the lower performance of Ontario. Corporatism, I argued, is more likely to

encourage performance when its membership is encompassing of diverse policy preferences rather than narrow and including only actors with convergent policy preferences. Canadian and American federalism also produced different results. American federalism permitted environmentally concerned actors to petition state governments in the face of the lock-in created by the USDA at the federal level. In contrast, Ottawa offered little opportunities for those disappointed by shallow provincial agro-environmental policies. The effect of federalism appears to be significantly contingent on the distribution of the power attributes among the actors of the policy community, notably the distribution of bureaucratic capabilities. Certainly, however, these differences provide no ground to support the commonly held perception that policy makers are unable to address problems in an adequate manner.

End Notes

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7. For an example of such a study see: W.R. Sheate and R. B. Macrory, "Agriculture and the EC Environmental Assessment Directive: Lessons for Community Policy-Making," *Journal of Common Market Studies*, XXVIII: 1 (1989), 68-81.

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