# Transitioning to a New Approach for Sustainability: The Case of Manitoba's ALUS Project

by

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# Abstract

In the early 2000s, Canadian governments began to adopt new programming tools aimed at improving farmers' land stewardship practices. This dissertation focuses on the Blanshard Alternative Land Use Services (ALUS) pilot project. The Manitoba project recognized agriculture's multifunctional roles and stemmed from a grassroots push led by industry, conservation groups, and a local government. These groups were concerned with primary agriculture's sustainability and formed a unique partnership to develop an innovative incentive-based policy tool for government consideration.

Policy change in Canada is often difficult and complicated, especially in areas that are subject to shared federal-provincial jurisdiction, including agriculture and the environment. Therefore, the adoption of a new programming concept towards agriculture provides an interesting case study to better understand the policymaking process and in particular, how a window of opportunity was created that enabled the ALUS project to be implemented. Furthermore, despite evidence that suggests the project was successful in many regards, the Manitoba government has never renewed ALUS. Therefore, this case study also analyzes why the window for further policy change seemingly closed in Manitoba and offers an explanation regarding what it may take to encourage policymakers to adopt similar programs in the future.

My thesis is that multiple factors including international influences, the push for change from stakeholders, broader policy trends, the availability and merit of the policy alternative, the lack of opposition, and public attention to environmental issues, coalesced to create a receptive policy environment for the ALUS pilot. However, the lack of renewal and/or broader application of the ALUS programming concept suggests that the shift to a new agricultural policy approach, which embodies and promotes multifunctionality, is still tentative and reversible.

# Preface

This thesis is an original work by Kerri L. Holland. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name "Transitioning to a New Approach for Sustainability: The Case of Manitoba's ALUS Project", No. Pro00021260, June 16, 2011.

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# Table of Contents

# List of Figures

## List of Abbreviations

| | |
|---|---|
| AAFC | Agriculture and Agri-Food Canada |
| ALUS | Alternative Land Use Services |
| APF | Agricultural Policy Framework |
| BMP | Beneficial Management Practices |
| BSE | Bovine Spongiform Encelopathy |
| CWB | Canadian Wheat Board |
| CRP | Conservation Reserve Program |
| DACC | Delta Ag Conservation Co-op |
| DUC | Ducks Unlimited Canada |
| DW | Delta Waterfowl Foundation |
| EFP | Environmental Farm Plan |
| EGS | Ecological Goods and Services |
| GDP | Gross Domestic Product |
| GIS | Geographic Information System |
| GMC | George Morris Centre |
| GMO | Genetically Modified Organism |
| GPS | Global Positioning System |
| EU | European Union |
| IISD | International Institute for Sustainable Development |
| ILO | Intensive Livestock Operation |
| KAP | Keystone Agricultural Producers |
| LSRCD | Little Saskatchewan River Conservation District |

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|---|---|
| LWSB | Lake Winnipeg Stewardship Board |
| MAFRD | Manitoba Agriculture, Food, and Rural Development |
| MAFRI | Manitoba Agriculture, Food, and Rural Initiatives |
| MASC | Manitoba Agricultural Services Corporation |
| MCIC | Manitoba Crop Insurance Corporation |
| NAFTA | North American Free Trade Agreement |
| NDP | New Democratic Party |
| NGO | Non-Governmental Organizations |
| OECD | Organization for Economic Co-operation and Development |
| PC | Progressive Conservatives |
| PEI | Prince Edward Island |
| PFRA | Prairie Farm Rehabilitation Administration |
| RM | Rural Municipality |
| UN | United Nations |
| USA | United States of America |

# Introduction

Canadian agriculture has been shaped over decades by technology, market signals, the natural environment, and government policies. Trends of farmland consolidation, intensified farming practices, and conversion of natural capital (e.g. wetland drainage and bush clearing) have escalated in the last two decades. Largely a result of the economic pressures faced by farmers, these trends have raised serious concerns regarding long-term economic, social, and environmental sustainability. In addition, environmental degradation has become an important issue in Canada with discussion taking place at all levels of government to address short and long-term objectives especially as it relates to economic development.

In the early 2000s, a shift in policy approach towards Canada's agricultural industry began to take shape in two key ways. First, government policies demonstrated a transition from an overwhelming focus on economic growth and production to an effort that better incorporated ecological management as a central tenet of working towards sustainable development goals. Second, while national and provincial governments continued to use traditional policy tools including legislation, regulations, and institutional changes, they also made notable attempts to implement incentive-based policy instruments aimed at improving land stewardship. Incentive-based programs embodied the notions that it was necessary to offset the financial pressures placed on farmers to meet changing environmental standards and that good land stewardship should be recognized and rewarded.

A common argument in Canadian political science is that public policies are rarely new and are most often modifications to existing policies and programs.[1] Therefore, if Canada's policymaking environment presents challenges for adopting a new approach or implementing alternative policy tools, it is worth considering what factors coalesce to enable fundamental

change to occur. This dissertation seeks to better understand the agenda-setting process and in particular what elements within the policymaking environment influence and support policy change. To achieve this research goal, I have conducted an in-depth case study that exemplifies both the shift in policy approach towards agriculture and also the application of a new policy tool in working towards sustainability goals.

This dissertation focuses on the first Alternative Land Use Services (ALUS) project that was implemented in Canada.[2] The pilot project in the Rural Municipality of Blanshard, Manitoba (2006-2008) was a three-year initiative that recognized agriculture as a multifunctional industry. The concept of multifunctionality rests on the belief that agriculture serves multiple functions (economic, social, and environmental) and that the management of farm operations can provide ecological goods and services (EGS).[3] EGS are the result of physical, chemical and biological functions of healthy ecosystems and include market goods produced from ecosystems (e.g. food, fibre, fuel, fresh water), benefits from ecosystem processes (e.g. nutrient cycling, flood mitigation, climate regulation, water purification, waste treatment, pollination), and non-material benefits (e.g. esthetic values, recreation). Through good land stewardship farmers are able to produce EGS, which provide widespread public and private benefits.

Blanshard's ALUS pilot project also serves as an interesting case study in how policy ideas and design can originate at the grassroots level. The project was conceived by Ian Wishart, a Manitoba farmer and farm leader, who was concerned about the environmental impact and economic stability of Canadian agriculture. Taking inspiration from international programming that provided incentives to farmers for improving land management, Wishart began developing a program in the late 1990s that he believed could play an important role in supporting a sustainable Canadian agricultural industry.[4] The ALUS program was designed to ease the

financial burden placed on farmers for modifying their operations by offering incentives to encourage improved land stewardship rather than imposing penalties for poor performance. The ALUS project provided financial incentives to farmers for two main purposes: to take farmland that was classified to be in an environmentally sensitive area out of production and to implement beneficial management practices (BMPs) to enhance environmental stewardship.[5]

The Keystone Agricultural Producers (Manitoba's largest general farm lobby organization), the Delta Waterfowl (a national conservation group), the Little Saskatchewan River Conservation District, and the Rural Municipality of Blanshard formed a partnership that was instrumental in garnering widespread support for the ALUS programming concept, developing a policy proposal for government, and participating in the administration of the Blanshard pilot project. The program, which was described as a "new style of programming", "radical", and "an innovative rural and agricultural policy concept", gained government support (federal, provincial, and municipal) and numerous stakeholder groups' support (industry and conservation groups) across Canada.[6] The Blanshard pilot project fostered partnerships among three levels of government and stakeholders as common objectives were established that promoted both economic and environmental sustainability.

The Blanshard pilot project had four main objectives: first, to test the feasibility of the ALUS concept as part of a locally delivered program; second, to test the delivery model of a landscape conservation program through an existing agricultural agency; third, to determine how landowners would respond to a voluntary incentive-based program; and last, to provide practical information to policymakers that could be utilized in the design of a large-scale national conservation program.[7] The Blanshard project exceeded many expectations. For example, uptake and compliance rates were high, feedback from landowners and the project's administrators was

overwhelmingly positive, the project came under budget, and over 20,000 acres of land were enrolled in the conservation project.

Despite the information gained from the three-year Blanshard pilot that indicated the project was successful in many regards, the Manitoba government never renewed or more broadly implemented ALUS. In addition, the ALUS programming concept has not yet become part of a national conservation plan as stakeholders had hoped. These facts prompt two other important questions in studying the policymaking process. First, did the factors in the policymaking environment that enabled the initial adoption of ALUS change or matter differently after the project was completed? Second, what conclusions can be drawn about how "windows of opportunity" for policy change open and close?[8]

***Research Goals and Thesis***

The goals of this dissertation are two-fold. The first is to provide a greater understanding of the Canadian policymaking environment and in particular how and why policy change occurs. The case study examines stages of the policymaking process and analyzes the roles played by actors (political and non-political), institutions, and context, which encapsulates not only policy legacy but also, for example, social and economic issues present on a government's agenda. Understanding what led policymakers to shift their policy approach and adopt a new policy tool is important to the study of agenda-setting and policy change within the political science field. Moreover, identifying key factors that enable change may help to explain why seemingly good policy is not renewed or modified for broader application.

The second goal of this dissertation is to detail a pivotal case in Canadian agricultural policy. The ALUS program represented an alternative and flexible approach to addressing agricultural sustainability. The pilot project promoted enhanced land management while taking

into consideration the benefits that an incentive program could have in promoting greater uptake of BMPs compared to other policy tools such as regulation and penalties. The Blanshard ALUS pilot project was the first of its kind in Canada that acknowledged the multifunctionality of agriculture and how farmers' provision of EGS could be better enabled. A departure from command and control policy tools, the ALUS program offered education and financial incentives to better address economic pressures faced by farmers and improve land stewardship. In addition, the Blanshard project has served as a program model for other ALUS projects in Canada. Therefore, it is important to provide an account of how the program originated to fully appreciate how its broader application could contribute to broader sustainable development goals.

My thesis is that factors including international influences, the push for change from stakeholders, broader policy trends, the availability and merit of the policy alternative, the lack of opposition, and public attention to environmental issues, coalesced to provide a window of opportunity for Blanshard's ALUS project to be adopted. However, the lack of renewal and/or broader application of the ALUS programming concept suggests that the shift to a new policy approach in agriculture is still in transition. Furthermore, as policymakers demand short-term results to justify public expenditures, the case for agri-environmental programs requires better ways of measuring impact and translating environmental benefits into economic terms.

***Literature Review and Theoretical Framework***

This dissertation is a case study in policymaking. As such, this literature review will discuss key concepts and themes related to the research questions including public policy, agenda-setting, the roles served by actors, institutions, and contextual factors within the policymaking process, and policy change.

Public policy is a general term that refers to a set of interrelated decisions in a particular area of government jurisdiction. Thomas Dye defines public policy as the "collective action or inaction taken by government in a given area of public interest."[9] This definition entails two key components—it identifies government as the principal agent of public policy, and it implies that government has a fundamental choice to act or not to act.[10] As such, it is the role of government to set direction through legislation or non-legislative means (e.g. policy statements), implement or redesign policies, and monitor progress towards the achievement of policy objectives.

Neil Bradford's *Commissioning Ideas* (1998) is an important piece of work within Canadian political science. It provides a theoretical foundation from which to grasp the interplay of ideas, interests, and institutions in the policy environment that facilitate and/or impede policy innovation at "critical junctures" in national policy. Bradford argues that interests (e.g. interest groups, bureaucrats, politicians, media, citizens) play a crucial role in generating and disseminating new policy ideas.[11] When ideas are developed, the action or inaction that follows is highly dependent on the support of effective and committed leaders, both political and non-political, to influence the government's agenda.

John W. Kingdon's work provides a comprehensive framework for studying the agenda-setting process.[12] Kingdon suggests that there are three major streams that help explain the agenda-setting process: problem, policy, and political. The problem stream focuses on how problems come to the attention of policymakers. System indicators (e.g. monitoring of program statistics), a focusing event such a crisis or disaster, or critical feedback with respect to an existing policy (e.g. evaluation studies, citizen complaints), can all serve as catalysts to bring attention to a problem. The policy stream is the process of accumulating knowledge from policy communities (e.g. specialists in the area) and the presentation of policy proposals to address a

problem. The political stream emerges as public attention and/or a new political administration help to further the problem on the government's agenda. Kingdon states, "The combination of the streams, as well as their separate development, is the key to understanding agenda change."[13] Moreover, when these streams come together, a window of opportunity opens for fundamental policy change to occur.

Kingdon also describes the pivotal role played by policy entrepreneurs, which he describes as policy advocates who are willing to invest their time and money to promote their ideas and present proposals.[14] Policy entrepreneurs must "soften up" the policy community, build acceptance for their proposals, and be persistent.[15] Kingdon explains that policy windows can be both predictable and unpredictable but they are not open for long. As such, he emphasizes that policy entrepreneurs must be ready to seize the opportunity to push their proposal forward on the government's decision-making agenda.

The pattern of interaction that develops among societal and state actors is often characterized in terms of policy networks and policy communities.[16] William Coleman and Grace Skogstad explain that a policy community includes "all actors or potential actors with a direct or indirect interest in a policy area or function who share a common policy focus, and who, with varying degrees of influence, shape policy outcomes over the long run."[17] Michael Atkinson and William Coleman explain that the term policy community refers to actors (e.g. politicians, bureaucrats, media, interest groups, citizens), while the network describes the "linking process" that occurs within the policy community.[18] The matrix of relations that develops illustrates that there is a complexity of linkages and influences among institutions and actors. Of course, the dynamics of the policy network can change over time and be highly issue-dependent. David Marsh and Martin Smith argue that the nature of the network is

> the result of actions of actors. It is agents who interpret and negotiate constraints or opportunities. However, the interactions among these agents are located within a structured context, which is provided by both the network and the broader political and social-structural context.[19]

While generalizations can be made about policymaking, variations of the policy network lead to different patterns of development depending on the policy domain.[20] Atkinson explains that there is no set pattern of public policy development, but rather, each area of public policy has "different actors, different coalitions, and different patterns of interaction."[21] Furthermore, the content of policy also impacts how the policymaking process occurs and interaction can vary amongst policy actors within a policy field.[22] The agricultural policy field and to a lesser extent, the field of environmental policy, comprise the main focus of the ALUS case study. Policy actors in the fields of agriculture and the environment include officials (political and bureaucratic) from all levels of government, farmers, scientists, interest groups, media, academics, and citizens.

As the farm population continues to decline, farm lobby groups continue to be a strong voice within the policy network. The farm population in Canada has consistently decreased over recent decades and farmers are estimated at 1% of the total Canadian population.[23] As such, the ability to organize, lobby government, and educate the consuming public is critically important for farmers to be able to effectively draw attention to their concerns.[24] Canadian farmers have historically mobilized to promote their interests in various ways such as forming political parties, co-operatives, and lobby groups. However, in the past few decades, farm interest groups have been the primary means of communicating with government.

Farm groups contribute to the policymaking process by putting forth their specialized knowledge about agriculture to government officials. As the issues governments deal with are increasingly complex, elected officials can no longer be expected to have substantial expertise in all policy areas. Interest groups, which are able to focus on one particular area, fill this void by

acting as consultants and relaying their specialized knowledge. As academics Jacquetta Newman and Brian Tanguay state, "government policy seems to vary within restricted parameters. In such an environment, organized interests … can be extremely important as sources of innovative ideas and as critics of conventional wisdom."[25]

For the most part, farm interest groups have chosen to participate in collaborative activities with policymakers and avoid protest-associated behaviour. As a result, most agricultural interest groups are able to maintain a respectful position with government, which helps them gain access to officials, both political and non-political, to present their concerns and ideas. According to John Sawatsky, this illustrates that "effective lobbyists prefer to operate as insiders rather than outsiders" within the policymaking process.[26] As stakeholder groups were involved in all stages of the ALUS policymaking process including the push to get agri-environmental issues on the political agenda, designing the pilot, implementing the project, and taking part in the evaluation, this research analyzes how their roles may have been a key determinant in the program's adoption and arguable success.

As farm interest groups play an important role in the policymaking process, the political system, in turn, determines how they operate. Donald Smiley wrote, "Government institutions will be shaped by, as well as shape the structures and activities of interest groups."[27] A similar perspective is put forth in Paul Pross' *Group Politics and Public Policy*. Pross cites the work of Harry Eckstein who argued, "pressure group politics are a function of the variable attitudes of individual members and of the society at large, the structure of governmental decision-making, and the patterns of policy-making in the political system."[28] As farm groups organize and attempt to influence the public and political representatives, the political system has largely shaped whom they specifically target and the methods they consider effective. This study treats

institutions as a key determinant in how relations among the policy network have been structured and how policy action has been guided.

While interests and institutions undoubtedly play central roles in the policy change process, the context in which policies are created and evaluated is also a key determinant. Challenges within the policy environment can include budgetary restraints, intergovernmental relations, and bureaucratic resistance. How policy actors navigate the constraints and opportunities within the political environment is critically important to pushing issues onto the decision-making agenda of government.

How the political agenda and its related priorities are established and pursued reflects not only the interconnection between institutions and actors but also historical, cultural, and contemporary considerations.[29] The context in which an issue exists affects the political response as well as how the issue is addressed and by what means.[30] In *Politics in Time,* Paul Pierson argues that consideration for context is crucial to fully grasping why and how policies develop and change.[31] Pierson explains that a particular moment in time must be recognized as part of an unfolding social process and that thinking about context provides a deeper insight to the relationships that exist in the policy environment.[32] Pierson states, "Particular social contexts constrain and enable political actors, and indeed may shape those actors very understanding of who they are and what they do."[33] Furthermore, "actors, organizations, or institutions are shaped by their spatial relationships to other aspects of a social setting."[34] Therefore, policy legacy contributes to the nature of the current policy environment and existing relationships within it.

Policy legacy not only refers to past or existing government policies that influence policy action and historical relations between policy actors but also how governments have traditionally operated. For example, regulation has been the favoured policy tool of Canadian governments

especially in the area of agricultural policy. However, in the early 2000s, Canadian policymakers were adopting incentive-based programming to enable rather than punish producers to meet changing environmental standards. For example, the inclusion of incentive and education-based policy tools rather than regulation in the 2003 Agricultural Policy Framework (APF) signified that policy actors were shifting their thinking about the multiple roles of agriculture (economic, social, and environmental) and how broader sustainability goals could be pursued.

Understanding how and why fundamental policy change does or does not occur has been a prominent area of discussion in the political science field. Shifts in policy approach in Canadian agricultural policy are often discussed using the term paradigm shifts.[35] The terminology stems from Thomas Kuhn's *The Structure of Scientific Revolutions* (1962). Peter A. Hall adapted Kuhn's paradigm theory to his study of macroeconomic policy change in Great Britain in the 1970s and 1980s. Hall's *Policy Paradigms, Social Learning, and the State* (1993) argued that policymakers work within a framework of ideas and standards regarding policy goals, policy instruments, the nature of problems, and how they should be resolved.[36] Eventually the framework becomes embedded in governing institutions and societal discourse and is not easily changed. Hall refers to these established frameworks as policy paradigms.

Hall explains that there are three distinct orders of policy change—each associated with a higher level of change: first, modifications to existing policy instruments; second, the adoption of new policy instruments to achieve goals; and third, a shift in overarching policy goals. Hall characterizes changes in policy approach as incremental in nature and wholesale change as being rare. Hall's work puts forth a number of valuable conclusions on policy learning and change including the important role served by ideas and discourse, the overlap of paradigms, and the argument that state and society both play an active role in fundamental policy change.[37]

As Bradford argues, policy change begins with the acceptance that change within the existing framework is necessary and new ideas are put forth as a way of addressing problems.[38] Kingdon also emphasizes the importance of problem recognition and stakeholders' realization that change is necessary as a catalyst for issues to be placed on the decision-making agenda of government. Therefore, following a discussion of the evolution of the Canadian agricultural industry, which helps to provide necessary context for the adoption of Blanshard's ALUS project, the dissertation's analysis begins with the problem recognition stage of the policymaking process. Following problem recognition, stages of agenda-setting and policy formation further policy development. Policy actors will articulate the problem, communicate with other actors, and propose possible solutions.[39] The societal agenda encapsulates a diversity of public issues. Howlett and Ramesh define agenda-setting as "the process by which problems come to the attention of governments."[40] As the governing political party, namely the Prime Minister/Premier and to a lesser degree, the Cabinet and caucus, decide how, and to what extent, issues of public policy are addressed, the institutional or political agenda of government develops. Furthermore, agenda-setting implies that issues vary in importance according to the time and manner of how they are addressed by government.[41]

Given the complexity inherent in the policymaking process, Kingdon's three streams model lends itself well to a policy case study. The model helps to better understand how problems are recognized, how proposals are presented for policymakers to address, why some issues are prioritized on the decision-making agenda, and how alternatives are chosen to address problems and/or achieve policy goals. The dissertation research and layout have been guided by Kingdon's model in addition to the policy cycle model first put forth by Michael Howlett in *Studying Public Policy: Policy Cycles and Subsystems* (1995).[42]

Howlett's policy cycle provides a useful analytical framework to examine the policymaking process. Examining how a policy develops and what factors shape the policy environment at various stages promotes a better understanding of the process as a whole. The model, which has been refined by many scholars including Howlett, first and foremost serves as a guide for a policy study by outlining the main stages worthy of consideration and it provides a model for organizing and conceptually breaking down the roles of actors, institutions, and context within each step. By analyzing the dynamics in the various stages of the policy process, policymaking in its entirety can be better understood.

The policy cycle model has been criticized as portraying the policy process as overly simplistic, systematic, and linear.[43] However, these criticisms are based on a misinterpretation of the model itself. The model does not suggest that stages always follow each other in a perfectly linear or systematic fashion. The reality is that policymaking is multifaceted and by no means consistently simple or straightforward. For example, policymakers may backtrack to a prior stage or skip ahead as problems are reconceptualized or elements of programs need to be redesigned. For example, Stuart Soroka has convincingly argued that agenda-setting should be regarded as ongoing throughout the policymaking process.[44] While Soroka has been critical of the policy cycle model, his point on agenda-setting provides a valuable addition to better understand why policies are/are not renewed or more broadly adopted following the evaluation stage.

Many political scientists have made valuable contributions to the study of agenda-setting, policy formation, and policy change. There has been less attention to what happens after a policy is implemented and evaluated or why policies fail to be renewed, especially when deemed a success. However, there are notable examples that do provide some insight into this phenomenon. Anthony Down's issue-attention cycle and Kathryn Harrison's analysis on the

impact of federal relations on environmental policy provide evidence to support the argument that public and government attention can shift and subsequently impact policy direction.[45] For this study, analyzing how policymakers' priorities may have shifted following the end of the Blanshard pilot project helps to explain why the program was never renewed or expanded.

Grace Skogstad's analysis on policy paradigms in Canadian agricultural policy also provides valuable insight into the extent of the recent shift towards the multifunctionality paradigm. Skogstad argues that despite some attempts by Canadian governments to incorporate alternative policy tools to address the multiple roles of agriculture, "there has been no significant shift in the governing paradigm."[46] Skogstad provides a number of explanations for why Canada has not fully adopted multifunctionality while the European Union has.[47] Skogstad explains that agriculture is less visible in Canada, there is less linkage made by the public between agriculture and environmental damage, federal policies continue to emphasize the economic contribution of agriculture over social and environmental roles, and non-agricultural civil society organizations (e.g. environmental or consumer groups) have been largely excluded from the policymaking process.[48]

Skogstad's research supports Hall's argument that policy change is incremental and that even with changes in policy instruments, overarching policy objectives can remain the same.[49] Moreover, there is a period in which paradigms seem to overlap as new understandings and goals replace old ones. Therefore, the Blanshard ALUS case study considers that Canadian governments have not implemented the program more broadly because the concept of agriculture's multifunctionality, and the best policy tools to enable and measure benefits, are not yet well understood or fully accepted.

It must be noted that Skogstad acknowledges that a limitation of her study is that it did

not examine provincial policies and that in the period 2008-2013, the federal government "devolved considerable responsibility to provinces" with regard to farm income support programs, on-farm food safety programs, and environmental programs.[50] As such, Skogstad writes that these policy developments "make provinces, local communities, and farms themselves the front line in advancing many of the practices that are associated with the more sustainable agriculture evoked by the multifunctionality paradigm."[51] The ALUS pilot project provides an ideal example of the type of policy Skogstad describes. As such, valuable insight can be drawn from the case study as it demonstrates how a new policy tool, which embodied the multifunctionality concept, rose from the grassroots with support from farmers, conservation groups, and local government.

The discussion above has highlighted key academic sources in the areas of policymaking, policy change, and agenda-setting. The dynamic roles of ideas, interests, institutions, and context, the relationships among policy actors, the policy legacy of governments, and broader policy trends and approaches, are all important considerations for analyzing a policy case study. The theories that have been outlined provide the orientation for this dissertation and guide the analysis as they direct attention to key elements of the policymaking environment.

***Methodology***

This dissertation has utilized a range of methods and sources to answer the central research questions. The following discussion provides an overview of the Blanshard ALUS pilot project, the case study method, and the data that guided and supported the research.

The three-year Blanshard ALUS project serves as an ideal example of an innovative policy tool that was designed to address the environmental impact of agricultural production. The RM of Blanshard, located in southwestern Manitoba, encapsulates the communities of Oak River

and Cardale and covers 350 square kilometers.[52] Blanshard was chosen to test the ALUS pilot project because there was local support for the program idea from the RM Council and landowners, the geographic location was considered "typical agro-Manitoba", its size was "workable for evaluation", and baseline data of land use in the area was available.[53]

The ALUS program has often been described as innovative, as it embodied a new approach towards Canadian agriculture that recognized the multifunctional nature of the industry and promoted enhanced environmental management through economic incentives.[54] The Blanshard project was the first of its kind to be implemented in Canada and has served as a model for ALUS projects in other provinces including Alberta, Saskatchewan, and Ontario. In addition, since 2008, Prince Edward Island has had a province-wide ALUS program. By studying the first ALUS project to be implemented in Canada, it contributes to an understanding of what factors were largely responsible for initiating policy change. In addition, the case study also explores why government has not renewed or expanded ALUS despite the project meeting and exceeding many of its objectives. Therefore, the Blanshard ALUS project is an ideal case study to draw conclusions on what factors in the policy environment enable policy change and why windows of opportunity seem to close for policy continuance and/or additional change.

Case studies have been widely used in social science research. Robert K. Yin argues that the case study approach is a particularly valuable method in contributing to knowledge of social phenomena. Yin writes, "the case study allows an investigation to retain the holistic and meaningful characteristics of real-life events."[55] Furthermore, Yin explains that case studies are particularly well-suited for research that involves program evaluation.[56] He states, an "important [application] is to explain the causal links in real-life interventions that are too complex for the survey or experimental strategies."[57] Especially with regard to agenda-setting studies, Soroka

argues that detailed case studies are superior to large-scale quantitative tests.[58] Furthermore, Schramm states, "the essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result."[59] Harry Eckstein's classic essay "Case Study and Theory in Political Science", argued that case studies are uniquely valuable because, unlike wide-ranging comparative studies, they permit an intensive analysis, which helps to identify critical variables and relations to be found.[60] Moreover, while case studies may have limitations in drawing broad generalizations about political phenomenon, the research method is particularly useful for refining existing theories and models.[61] As such, analyzing the single case study of the Blanshard ALUS project provides rich detail to better understand the factors and dynamics within the policy environment that led to policy change.

Bent Flyvbjerg explains that case selection can either be random or information-oriented.[62] Information-oriented are case studies selected "on the basis of expectations about their information content."[63] As the Blanshard ALUS case study was chosen specifically for its attributes it can be described as information-oriented. Flyvbjerg outlines four main types of cases: extreme, which study unusual/deviant cases; maximum variation, which consists of using several cases to obtain information about the significance of various circumstances for case process and outcome; critical, which use "most likely" or "least likely" cases to either confirm or falsify propositions and hypotheses; and paradigmatic, which are cases that highlight more general characteristics of the societies in question."[64] Flyvbjerb also explains that cases can fit into more than one category. For example, "a case can be simultaneously extreme, critical, and paradigmatic."[65] The ALUS case study is an excellent example of a case that fits into multiple categories, as it could be described as extreme, critical, and paradigmatic.

While there are many advantages to using case studies, there are also weaknesses. Some of the main criticisms attributed to case studies include too many variables to definitively explain a phenomenon or problem, lack of objectivity/introduction of bias, and inability to generalize.[66] These weaknesses must be addressed through analytic rigour. The discussion that follows is a brief explanation of how this dissertation has tried to meet these challenges.

The literature review, statistical analysis, and interviews have not only supplemented the case study research for this dissertation but also have guided it. For example, the literature review, which included sources such as news articles, government reports, and interest group publications, directed my attention to which policy actors played key roles in the policy process. Furthermore, as previously discussed, theories of agenda-setting and policy change have provided a foundation for this dissertation. While there are many variables in the policymaking process that shape policy outcomes, there are arguably some factors that have greater influence than others. A concerted effort has been made to draw from as many sources as possible to identify and verify what factors served the largest role in enabling a window of opportunity for policy change to occur.

Subjectivity and bias of a researcher are not exclusive to the case study method alone. It can be argued that all methods reflect a certain amount of subjectivity. For example, research questions in both qualitative and quantitative analyses are shaped by a researcher's prior knowledge or experience with the subject matter or method. I acknowledge that there is more opportunity in case study research to introduce bias especially with regard to case selection. However, the case study for this dissertation was not chosen to fit the research questions. Rather, the research questions stemmed from observations of the ALUS case.

In collecting research for my Master's thesis (2005-2007) at the University of Manitoba,

which focused on Canadian agricultural policymaking, I became aware of the three-year Blanshard ALUS pilot project (2006-2008). Being familiar with many of the existing policies and programs directed at Canadian agriculture, the ALUS programming concept drew my attention as it diverged from the regulatory action the federal and provincial governments typically favoured. In addition, I was interested in how and why a partnership formed between industry and conservation groups to push for policy action. Moreover, the ALUS project led me to question whether policymakers' decision to adopt an alternative policy tool represented a larger shift in policy approach towards agriculture. To mitigate bias in the research, a large amount of data was collected through the literature review, statistical analysis, and interviews, to ensure that I fully considered alternative explanations for the research questions. In addition, while the Blanshard ALUS project is referenced several times in the dissertation as having been successful, conclusions about the pilot project's merit were drawn from statistical evidence as well as policy actors' observations of how objectives were met.

With regard to the generalizability of case studies, there are potential limitations of the Blanshard ALUS project that must be acknowledged. First, the focus on a policy implemented in Manitoba may reflect different intergovernmental relations and capacity (e.g. budgetary) compared to another province. Second, an agricultural policy case study may have different actors with different influence within the policy environment when compared to another policy field. However, Flyvgberg explains that the ability to generalize can be increased by the strategic selection of cases.[67] He argues,

> When the objective is to achieve the greatest possible amount of information on a given problem or phenomenon, a representative case or a random sample may not be the most appropriate strategy. This is because the typical or average case is often not the richest in information. Atypical or extreme cases often reveal more information because they activate more actors and more basic mechanisms in the situation studied.[68]

Therefore, I am confident that my research findings can be applied more broadly—beyond Blanshard, beyond agriculture, and beyond Manitoba.

First, Manitoba's relations with the federal government are not atypical especially as it relates to agricultural policymaking. For example, the federal-provincial Agricultural Policy Framework (2003) and related agri-environmental programming demonstrate that a shift in policy approach towards agriculture in the early 2000s was not confined to Manitoba. Furthermore, the ALUS programming concept has been implemented in a number of other jurisdictions in Canada. While the Blanshard case study is unique because it was the first ALUS pilot project, understanding how and why the new policy tool was initially adopted sheds light on why subsequent projects were implemented in other provinces.

Second, the agricultural policy field has distinctive qualities but there are a number of commonalities that exist in the policy environment that make this study applicable to other policy areas. For example, there is a large degree of overlap in many areas of federal and provincial jurisdiction. While many areas of policy are constitutionally under provincial jurisdiction, the reliance on federal funding necessitates intergovernmental relations. As touched upon in the literature review section, federalism can potentially impede innovation and present obstacles to policymaking. Therefore, the Blanshard ALUS project is an interesting case study to examine how a grassroots policy initiative gained widespread government support.

Third, even if this research only allows for a better understanding of Canadian agricultural policy, that alone is enough to warrant this dissertation's focus. Agriculture affects all Canadians economically, socially, and environmentally. The industry serves multiple roles that include generating economic wealth, providing employment, managing land resources, and ultimately producing a variety of agricultural products. The foundation of the agricultural

industry rests on primary agricultural producers and their ability to provide a stable supply of quality agricultural commodities for processing. How farmers manage their operations and produce commodities has far reaching impacts, both directly and indirectly, most obviously on rural communities but urban Canada as well. Analyzing the ALUS pilot project and whether it represented a transition to a new policy approach not only provides a greater understanding of the agenda-setting process but also how policy change has occurred and how sustainability objectives have been pursued.

To support the case study, data has been gathered from an extensive literature review of primary and secondary sources, a statistical analysis of Canadian agriculture trends, and in-depth personal interviews.

The literature review included sources from political science as well as other academic fields. The study of agricultural sustainability benefits from a multidisciplinary approach and scholarly sources, particularly from economics and the natural sciences, were useful in understanding agricultural trends, economic pressures on the industry, environmental degradation, and incentive-based policy instruments. The literature review provided the required framework necessary for the inclusion of statistical data and interview responses.

Statistics are helpful for identifying economic and environmental trends as well as gauging the level of support from various stakeholders by analyzing funding commitments, levels of participation in programs, and programming results. The majority of statistics that have been compiled and incorporated are publicly available through Statistics Canada, Agriculture and Agri-Food Canada, and Manitoba Agriculture, Food, and Rural Development. In addition, research data presented by agricultural economists and natural scientists related to the case study have been incorporated into the analysis. Such data is particularly insightful in evaluating the

extent to which the Blanshard ALUS project met its key objectives. The analysis includes a breakdown of funding and sources, the number of landowners involved, total acres enrolled in the program, land-use practices, average acres and payments per landowner, total payouts to landowners, all other costs (e.g. administration), and compliance rates. These statistics were provided by the Manitoba government in response to an application made under the *Freedom of Information and Protection of Privacy Act*. A telephone conversation with Doug Wilcox, currently Manager of Research Administration and Program Development at Manitoba Agricultural Services Corporation (MASC), provided further detail on the statistical information.[69] It should be noted that Wilcox was also involved in MASC's administration of Blanshard's ALUS project and his comments during our telephone conversation provided valuable insight from the perspective of a civil servant. Wilcox discussed the ALUS project's administration, the partnerships among stakeholders, and the evaluation of the project.

Data was collected from a variety of informants, in addition to Wilcox, throughout the research process via email and telephone conversations, which allowed respondents the opportunity to provide detailed explanations and clarification on various topics related to the research. James Battershill, the General Manager of KAP, detailed the group's current initiatives and provided a number of documents related to the ALUS project. In addition, Lenore Kowalchuk, former KAP Communications Coordinator, who was involved with the lobby group at the time of ALUS, helped to clarify some of the documents provided by KAP. Manitoba's Department of Agriculture, Food, and Rural Development (MAFRD) was also forthcoming with information and offered statements about the Blanshard project and more recent government policy action. The fourth key informant was Jim Fisher, Delta Waterfowl's Director of

Conservation Policy. Fisher provided information about current ALUS projects in Canada including the recently announced (May 2014) stakeholder led project in Manitoba.

In collecting data for the dissertation, I discovered a lack of information regarding the dynamics among the stakeholder groups that designed the Blanshard ALUS project. As the ALUS programming concept was designed and promoted from the grassroots level, I was particularly interested in understanding how the partnership between the Keystone Agricultural Producers (KAP), the Delta Waterfowl (DW), the RM of Blanshard, and the Little Saskatchewan River Conservation District (LSRCD) came to be formed and what the nature of their relations were. Furthermore, I felt it was important to understand how an industry group, conservation groups, and a local government found common objectives, designed the ALUS proposal, and how and why they pushed government to take action. Relatedly, the provincial government never clearly stated what their motivations were to adopt the ALUS project and ultimately what their reasons were for not implementing ALUS again.

Keith Archer and Loleen Berdahl state, "Given the demands placed on both the researcher's time and the respondents' time, interviews should not be used when the necessary information can be more efficiently obtained through other means."[70] As such, statements from various policy actors were incorporated from such sources as government and lobby groups' news releases, media coverage, annual reports, and radio interviews. However, there were still questions left unanswered about the ALUS policymaking process. As such, it was necessary to conduct a few key personal interviews with stakeholders involved in the Blanshard pilot project. I applied for ethics approval through the University of Alberta's Research Ethics Board. Interviewees were contacted by email (Appendix A) and/or lettermail and were required to sign a consent form, which outlined the study, details of the interview, and their rights as an

interviewee (Appendix B). Four individuals were interviewed and were specifically requested to participate because of the important roles they had in the Blanshard project. The four participants provided a wealth of information and each contributed a unique perspective on the policymaking process.

The first interview was conducted with Ian Wishart. Wishart was the farmer who initiated the ALUS programming concept. In addition, he has served as the Vice-President and President of the Keystone Agricultural Producers, and he was elected to the Manitoba Legislative Assembly in 2011. Therefore, Wishart provided information from multiple perspectives including that of the architect of ALUS, as a former leader of a farm lobby group, and as a current member of the Official Opposition in the Manitoba legislature.[71]

The second interview was with Roy Greer, who was a councillor for the RM of Blanshard from 1983 to 2010 and Chair of the LSRCD during the ALUS pilot project. Greer was born and raised in the RM of Blanshard, farmed for decades, participated as a landowner in the ALUS project, and continues to reside on his farm. Greer's interview provided insightful observations regarding the changes in agriculture and the environment he has witnessed over his lifetime, his role and participation in ALUS, and changes in land stewardship in the RM since the end of the ALUS project.

The third interview was conducted with Robert Sopuck. Sopuck had worked for the International Institute of Sustainable Development before serving as Delta Waterfowl's Vice President of Policy from 2000 to 2009. In 2010, Sopuck was elected as a Canadian Member of Parliament and has sat on a number of parliamentary standing committees including Fisheries and Oceans and Environment and Sustainable Development.[72] The interview with Sopuck was very informative as he was able to provide great detail on his experiences as a former member of

an international public policy research institute, an executive member of a national conservation organization involved with the promotion and administration of ALUS, as well as a member of the federal government.

The fourth interview was conducted with Rosann Wowchuk. Wowchuk served as a Manitoba MLA representing the rural constituency of Swan River from 1990 to 2011. She was the Minister for Agriculture from 1999 to 2009 and Minister of Finance from 2009 to 2011.[73] In addition, Wowchuk was the province's Deputy Premier from 2003 until 2011 when she retired from office. Wowchuk's ability to communicate her wealth of political experience was a valuable contribution to this dissertation. As Minister responsible for Agriculture at the time that ALUS was adopted, the discussion with Wowchuk offered detailed insight into the policymaking process from the government's perspective.

The interviews were based on the elite interviewing approach first developed by Lewis Anthony Dexter (1970) and refined by other political science scholars, which allows for general questions and open discussion.[74] As Jared Wesley explains, "Elite interviews are an important tool for political science research. An 'elite' in this sense is an individual or group with access to the specialized information we need."[75] The interviewees were provided with information on the research project and were given a list of general questions and topics for discussion in advance of the interview. For the convenience of the participants and myself, interviews were conducted by telephone at a mutually agreed upon date and time. Stephens, Holt, and Williams all support that telephone interviews can be a productive and valid method for collecting research data.[76] The length of the interviews averaged one hour and general notes were taken. All quotations cited in the dissertation were noted exactly as the participants stated. Moreover, a concerted effort has

been made to ensure that all quotations used in the dissertation were placed in the proper context with regard to the topic the interviewee was addressing during the discussion.

While the specific questions slightly varied based on the participant's background and position, a number of common topics were discussed. These topics included: interviewees' conception of sustainable agriculture, the role they/their organization played in the ALUS policymaking process, primary agriculture's responsibility in working towards sustainable development objectives, the extent to which policy actors worked collaboratively, evaluation of the ALUS project, opportunities and challenges that exist in the policy environment, their perception as to why the renewal of the ALUS program has not been supported by the Manitoba government, and the changes, if any, they would like to see if ALUS was implemented in the future. The questions were open-ended and there was flexibility with the topics discussed as some answers provoked further inquiry.

Conducting interviews is a common method in policy analysis because of their usefulness in providing a rich and detailed historical account.[77] Archer and Berdahl explain interview data can be less useful for producing a theoretical explanation. However, with an understanding of relevant theoretical approaches and familiarity with the existing literature, interview data can prove to be a valuable addition to help better explain the policymaking process.[78] While the statements of interview participants are subjective, important conclusions can be drawn from comparing and contrasting interviewee responses. In addition, a triangulation research strategy, which incorporates a variety of data sources, or a "mixed-methods" approach, helps to support and verify research findings.[79] For example, using statistical analysis to contradict or corroborate interviewee responses adds legitimacy to the study and helps validate research conclusions. In addition, Wesley explains that the triangulation strategy can also involve "member-checking",

which is used to "verify the results of their observations with the subjects, themselves, as a means of verifying the authenticity of their findings."[80]

Both of my parents are third generation Canadian farmers and growing up on a mixed grain and livestock farm in rural Canada has provided me with firsthand experience with the primary agricultural industry. My background gives me not only a deep appreciation of the contributions farmers make to broader society but also an understanding of the dynamics and culture within the farming community. For the past few years, my academic research has heavily focused on Canadian agricultural policies and programs and the policymaking process in general. This experience provides an excellent foundation upon which this dissertation builds.

***Chapter Outline***

To analyze the Blanshard ALUS case study, it is essential to understand the context in which policy change occurred. The first section of ***Chapter One*** provides an overview of key stages of the Canadian agricultural industry's evolution dating back to the late 1800s. The stages of primary agriculture's development frame a discussion on sustainability issues, farm mobilization, and government policy. How the agricultural industry has evolved, how and why farmers have pushed for policy action, and what key factors have shaped the nature of the present Canadian agricultural industry will all be touched upon.

The objective of the ALUS pilot project was to promote agricultural sustainability. To better understand how sustainable agriculture fits into larger and more encompassing sustainable development goals, this chapter highlights central points of the discourse and debate related to the sustainable development concept. The term sustainable development rose to international prominence in the late 1980s with the Brundtland Report. Canadian policymakers have been influenced by the concept and international debate continues regarding how to best define the

term and translate it into policy action. At the heart of this discussion agriculture has been a central topic and has generated much debate in regards to how economic, social, and environmental goals can be concurrently and effectively pursued. The final section of this chapter builds off the first two sections by discussing sustainable agriculture and detailing how policy trends within Canada demonstrated that a shift in agricultural policy approach had begun in the early 2000s. In turn, the change in policy approach contributed to a receptive policy environment for the adoption of a new policy tool like ALUS.

***Chapter Two*** analyzes how and why stakeholders began to push for policy change. The chapter also explores how key policy concepts and emerging ideas within the policy environment helped shape the ALUS proposal presented to government by stakeholders.

The first section highlights significant industry trends and related concerns among policy actors. As concerns, especially related to environmental degradation, were gaining more attention in the late 1990s and early 2000s, international dialogue on sustainable development was taking place. Furthermore, new conceptions of the roles of agriculture and the goods and services that a sustainable industry provides were being promoted and embodied in new programming in other countries. The second section of the chapter provides a discussion on what has been termed the multifunctionality of agriculture. This term embodies the argument that primary agriculture serves multiple economic, social, and environmental roles, which produces ecological goods and services. Emerging concepts and agri-environmental programs in other countries ultimately served as inspiration for the ALUS program that sought a different approach to fostering agricultural sustainability goals.

The third section of this chapter analyzes how the partnership formed among stakeholders, what the main features of the ALUS pilot project proposal were, and how the proposal was presented to government.

***Chapter Three*** analyzes the agenda-setting and policy formation stages of policy development related to the ALUS program. While the previous chapter focuses on how and why stakeholders pushed for policy action, this chapter examines what factors in the Manitoba policy environment enabled a window of opportunity for policy change to occur.

As policy actors interact within the institutional framework to determine the nature and content of policy proposals, this chapter analyzes how Canada's governing system shapes both intergovernmental relations and interest group activity, and how policy action is influenced by the nature of the party system and the dynamic relationships among political and non-political actors.

This chapter also analyzes three key environmental concerns (flooding, Lake Winnipeg pollution, growth of hog sector) in Manitoba that were fostering a discussion regarding agriculture's environmental role in the late 1990s and early 2000s. This chapter aims to understand how broader policy trends and greater attention towards agriculture's environmental role, created a favourable policy environment for ALUS to be considered by policymakers.

***Chapter Four*** studies the decision-making and implementation stages. The decision-making stage is critical to policy outcomes as political actors must first establish a course of action and choose which policy instrument they believe will meet their goals. The Blanshard ALUS pilot project represented an alternative policy tool to promoting improved land stewardship in primary agriculture. The design and administration of the program is detailed and includes a discussion regarding the main objectives of the pilot project, program delivery,

funding sources, landowner eligibility and payments, and roles of administrating bodies. An analysis follows to highlight elements of the pilot project's implementation that were key to stakeholder participation and compliance.

***Chapter Five*** analyzes the evaluation stage of the policymaking process. Following the conclusion of a program initiative, policymakers decide whether to renew, terminate, and/or redesign. This decision is largely based on an evaluation of the program and policymakers will draw conclusions on whether it achieved its objectives, if the program was the best way to achieve policy objectives, and if the program was relevant under current conditions. The first section of this chapter discusses the process and purpose of policy evaluation.

The Manitoba ALUS project was a policy tool that represented a change in how policymakers were pursuing goals of agricultural sustainability. In addition, the project brought together a diverse group of stakeholders and was largely regarded to be a success. However, while other ALUS projects have been implemented in Canada, the program has yet to be renewed by the Manitoba provincial government.

This chapter details the evaluation of the Blanshard ALUS project as well as the feedback from policy actors. An analysis of the pilot project's main objectives is presented in an attempt to judge the project's success. Conclusions are drawn as to whether or not ALUS failed to be renewed by government because it was an ineffective policy tool or whether factors within the policy environment changed to essentially close the window for further policy change to occur.

In May 2014, Delta Waterfowl and the Little Saskatchewan River Conservation District, two of the ALUS program's original partners, announced that a new project would be implemented in Manitoba under their leadership. This project will operate a slightly refined ALUS programming model and will be administered by stakeholders not the federal or

provincial government. This chapter concludes with a brief overview of the new project and discusses how the new ALUS model may help to encourage government support and eventual adoption of a broader ALUS initiative.

The ***Conclusion*** provides a summation of major findings and concluding remarks regarding the central objectives of the dissertation.

## Notes

[1] Paul G. Thomas, "Governing from the centre: reconceptualizing the role of the PM and Cabinet", *Policy Options*, December 2003 [Online]. Paul J. Larkin Jr., "The Antiterrorism and Effective Death Penalty Act of 1996: An Illustration of John Kingdon's Three Streams Theory of How Public Policy Is Changed*", Journal of Law and Politics*, 28, 1 (2012), 28.
[2] In 2005, the Blanshard ALUS pilot project was adopted by the Manitoba government and commenced in 2006.
[3] EGS can be used as the acronym for the following: Ecological Goods and Services, Environmental Goods and Services, and Ecosystem Goods and Services. All three terms are synonymous and can be used interchangeably.
[4] Ian Wishart, Personal Interview, May 29, 2013.
[5] A beneficial management practice (BMP) is defined as "A recognized agricultural management practice that mitigates or minimizes negative impacts and risk to the environment, by maintaining or improving soil, water and air quality and biodiversity; or improves adaptability and ensures the long-term health and sustainability of land-related resources used for agricultural production. Canada and Manitoba, *Growing Forward II Terms and Conditions: Growing Assurance-Environment*, December 30, 2013 [Online]
[6] Ron Friesen, "Ottawa Silent on Renewed ALUS Funding", *Manitoba Co-operator*, December 3, 2009. Allen Tyrchniewicz and Edward Tyrchniewicz, *Alternative Land Use Services (ALUS): A Preliminary Overview of Potential Cost Reductions and Financial Benefits to Canada*, January 15, 2007 [Online]
[7] Ian Wishart, "The Alternative Land Use Services (ALUS): An Ecological Goods and Services Research Project in the Rural Municipality of Blanshard, Manitoba", *Ecological Goods and Services Technical Meeting Proceedings*, April 29-30, 2009 [Online] Robert D. Sopuck, "Case Study: Rural Municipality of Blanshard (MB) pilot project", Presentation at the Association of Manitoba Municipalities Municipal Officials Seminar, February 26, 2007 [Online]
[8] In John W. Kingdon's Policy Streams Approach policy formation is described as the flow of three 'streams', the problem stream, the policy stream and the politics stream. When these streams come together, Kingdon argues that a 'policy window' opens which creates an opportunity to facilitate policy change. John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (Boston: Little, Brown, 1984).
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[10] Michael Howlett and M. Ramesh, *Studying Public Policy: Policy Cycles and Policy Subsystems*, 2nd ed., (Don Mills, Ont.: Oxford University Press, 2003), 5.
[11] An interest group/pressure group can be defined as an organization whose members act together to influence public policy in order to promote their members' common interest. Rand Dyck, *Canadian Politics*, 2nd ed., (Scarborough: Nelson Thompson Ltd., 2002), 204.
[12] John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (Boston: Little, Brown and Company, 1984).
[13] John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (New York: HarperCollins, 1995), 179.
[14] Ibid., 115-128.
[15] Ibid. 125-128
[16] George Hoberg, "Environmental Policy: Alternative Styles", In Michael M. Atkinson, ed., Governing Canada: Institutions and Public Policy, (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 310.
[17] William D. Coleman and Grace Skogstad, "Policy Communities and Policy Networks", In William D. Coleman and Grace Skogstad, eds., *Policy Communities and Public Policy in Canada: A Structural Approach,* (Mississauga, Ont.: Copp Clark Pitman Ltd., 1990), 25.
[18] Michael M. Atkinson and William D. Coleman, "Policy Networks, Policy Communities, and the Problems of Governance", In Laurent Dobuzinskis, Michael Howlett, and David Laycock, eds., *Policy Studies in Canada: The State of the Art,* (Toronto: University of Toronto Press, 1996), 197.
[19] Ibid.
[20] William D. Coleman and Grace Skogstad, eds., *Policy Communities and Public Policy in Canada: A Structural Approach,* (Mississauga, Ont.: Copp Clark Pitman Ltd., 1990), 316. Also see: Laurent Dobuzinskis, Michael Howlett and David Laycock, eds*., Policy Studies in Canada: The State of the Art*, (Toronto: University of Toronto Press, 1996), 195.
[21]Michael Atkinson, "Public Policy and the New Institutionalism", In Michael M. Atkinson, ed., Governing Canada: Institutions and Public Policy, (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 37.
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[32] Ibid.
[33] Ibid.,169.
[34] Ibid.,171.
[35] Some examples include Grace Skogstad, "Effecting Paradigm Change in the Canadian Agriculture Sector: Toward a Multifunctionality Paradigm", In Rod MacRae and Elisabeth Abergel, eds., *Health and Sustainability in the Canadian Food System: Advocacy and Opportunity for Civil Society*, (Vancouver: University of British Columbia Press, 2012) 17-38. Grace Skogstad, "Canadian Agricultural Programs and Paradigms: The Influence of International Trade Agreements and Domestic Factors", *Canadian Journal of Agricultural Economics*, 56 (2008) 493-507. William D. Coleman, Grace D. Skogstad, and Michael M. Atkinson, "Paradigm Shifts and Policy Networks: Cumulative Change in Agriculture", *Journal of Public Policy*, 16, 3 (1996), 273-301.
[36] Peter A. Hall, "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain", *Comparative Politics* 25, 3 (April 1993), 275-296.
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[39] Melody Hessing, Michael Howlett, and Tracy Summerville, *Canadian Natural Resource and Environmental Policy: Political Economy and Public Policy,* 2nd ed., (Vancouver: UBC Press, 2005), 108.
[40] Michael Howlett and M. Ramesh, *Studying Public Policy: Policy Cycles & Policy Subsystems,* (Toronto: Oxford University Press, 2003), 13.
[41] Stuart N. Soroka, *Agenda-Setting Dynamics in Canada*, (Vancouver: UBC Press, 2002).
[42] Michael Howlett, M. Ramesh, and Anthony Perl, *Studying Public Policy: Policy Cycles and Policy Subsystems,* 3rd ed., (Don Mills, ON: Oxford University Press, 2009).
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[48] Ibid. Macrae and Abergel define CSOs as "community-based, not-for-profit organization working for the public interest, for the most part independently of governments and private sector organizations." Rod MacRae and Elisabeth Abergel, eds., *Health and Sustainability in the Canadian Food System: Advocacy and Opportunity for Civil Society*, (Vancouver: University of British Columbia Press, 2012), 4.
[49] Peter A. Hall, "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain", *Comparative Politics* 25, 3 (April 1993), 278-279.
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# Chapter One

## The Evolution of Canadian Agriculture and Sustainable Development

This dissertation examines the Blanshard ALUS pilot project, which represented a notable shift in policy approach towards primary agriculture in the early 2000s. To provide some context, the first section of this chapter examines five general stages that can be identified in the Canadian agricultural industry's evolution. The stages of agriculture's development frame a discussion of major events of the period, key government action and policy goals, sustainability concerns, and how and why farmers have mobilized to promote their interests. This section provides insight into what has driven change from one stage to another as well as some perspective regarding what factors shaped the nature of Canadian agriculture in the early 21st century.

The second section of this chapter presents an overview of how the sustainable development term gained popularity and explores main points of the discourse and debate. This section also discusses how international dialogue influenced Canadian policy beginning in the 1990s. The third section of the chapter examines the notion of sustainable agriculture and how its related objectives fit into the larger goal of sustainable development.

The chapter's aim is to provide a deeper understanding of what factors have shaped Canadian agriculture and how international dialogue helped to push the issue of sustainable development and agricultural sustainability onto the political agenda. Furthermore, as following chapters focus on the policymaking process of Blanshard's ALUS project, this chapter analyzes how sustainable development dialogue within the policy environment contributed to the shift in policy approach towards agriculture.

## 1.1 The Structural Evolution of Canadian Primary Agriculture

The agricultural industry in Canada has evolved through a series of stages.[1] Environmental conditions, technological development, market factors, and public policies and programs are interconnected and have contributed to a constantly adapting industry.[2] Modifications to how commodities are produced in Canada reflect the considerable influence of each of these factors on the historical evolution of primary agriculture. Moreover, as the majority of Canadian agricultural land (81%) is located in the Prairie Provinces (Manitoba, Saskatchewan, and Alberta) and policies directed at that region have been distinct, the discussion that follows is primarily based on their development.[3] For brevity, the discussion does not attempt to provide an all-inclusive historical account but rather highlights significant points and notable trends within the general stages of primary agriculture's structural evolution.

The ***Initial Period of Settlement*** (1880-1914) in Canadian agriculture coincided with the Canadian government's attempt to populate the Western region of Canada and develop the country's economy.[4] The National Policy (1876), which was adopted following Confederation in 1867, established settlement, tariff, and railway policies that shaped the initial development of primary agriculture especially in Western Canada. The overarching goal during this timeframe was not only to develop an industry that could produce enough commodities to support local populations in the West but also supply Central Canada's growing industrial and manufacturing sectors in Ontario and Quebec. The national government imposed high tariffs and enacted the Crow's Nest Pass Agreement (1897) to enable economic expansion within Canada. The Crow Rate was a rate-control agreement for the transportation of Prairie grain. Its primary purpose was to support railway expansion and the transfer of raw products from the Western region to the manufacturing provinces of Central Canada. Economist V.C. Fowke argued in *The National*

*Policy and The Wheat Economy* (1958), the agricultural sector played a critical and central role in developing the manufacturing base in Ontario and Quebec. As such, the national government's objective was to promote economic growth by ensuring more raw and manufactured products were produced for export.

Early settlement throughout Canada largely depended on immigrants, primarily from Europe, lured with the promise of inexpensive land. This influx of settlers, usually with little experience in agriculture, were required to quickly adapt in order to survive. Farms were small but diversified in nature to be as self-sufficient as possible. The expansion of the railway network brought relative prosperity throughout Canada as the goal of the national government to integrate the economies of East and West was largely met.

The second major period in Canadian agriculture's evolution can be classified as the ***Great Expansion*** (1914-1930). The First World War (1914-1918) resulted in high demand for wheat and prices were relatively good for Canadian farmers. Livestock expansion and increases in wheat production followed in the post-war years as the market demand remained stable. In fact, Canadian farmers were producing almost one-third of the wheat on the entire world export market. However, Western farmers were becoming increasingly frustrated with the impact of high tariffs.[5] The tariff structure caused financial hardship to Western farmers as they were forced to buy inputs at an exceptionally high cost from suppliers and sell grain at lower prices to protected manufacturers in the East. This area of contention contributed to agrarian discontent on the Prairies towards the national government for many years to come. David Laycock writes, the National Policy established a "transcontinental economy, in which the Western and Maritime provinces would be dependent resource-producing 'hinterlands', serving the interests of central Canadian businessmen and politicians."[6] However, the national government's objective to

expand the agricultural industry both in the East (manufacturing) and the West (raw commodity production) would be further realized as growth in production rates remained steady.

The National Policy's unequal effects in different regions of the country were a central reason why many Prairie farmers decided to join together in opposition to what they believed was political, economic, and social domination. The farm movement was not only a response to the federal government's economic policies but also reflected broader political and social concerns. Laycock explains that Prairie farmers have historically mobilized when they believed "that their interests were being poorly served by the prevailing distribution of political and economic power, and that concerted collective action could positively change the situation."[7]

At the beginning of the 20th century, farmers started to formally organize to promote economic, social, and democratic reform in Canada. The agrarian movement continued to gain strength and began to make significant breakthroughs in the political environment around the time of World War I. A central desire of farmers was to establish agriculture as an attractive occupation for returning soldiers and new immigrants. Moreover, given that many farmers had been involved in farmer, labour, or other political reform activity in their countries of origin, coalitions between different social groups began to form as farmers conceptualized their movement as encapsulating and benefiting the larger civil society.[8] Agricultural interests were mobilized in three main ways: the formation of political parties, establishment of collectively owned farmer enterprises, and the creation of farm organizations to lobby government.

When the federal government failed to make any significant changes to the existing tariff structure, Western farmers felt that their interests were not being represented at the federal level by either of the two main political parties. Political parties were regarded as inherently undemocratic and some political activists believed that it would be better to replace them with

non-partisan political organizations. Within the agricultural community it was generally agreed that change was needed to ensure that farmers' interests were better represented and their concerns addressed. At the national level, a loosely organized party was formed called the Progressives, which ran on a platform created by the Canadian Council of Agriculture. The "New National Policy" that was the foundation of the Progressives platform in the 1921 federal election proved to be successful. While the Progressives were viewed as a party fuelled by Western discontent, their platform appealed to voters beyond the Prairies. In fact, the Progressives won 20 out of 82 federal seats in Ontario and made significant gains in the Maritime Provinces.[9] The Progressives' platform advocated a variety of economic and social reforms such as free trade, state unemployment insurance, public ownership of utilities, old age pensions, health/disability insurance, and a national bank system.[10] In addition, the party drew attention to democratic reforms. Laycock explains,

> Their attacks on concentrated corporate wealth, and the complicity of the two major parties, were blunt, often incisive, and usually of high educational value to the public. Many farmer activists then spoke about class exploitation, and shared with labor activists a critique of an undemocratic society.[11]

The Progressives proposed a number of democratic reforms: the opening of seats in Parliament to women on the same terms as men, the publication of election campaign expenditures, removal of press censorship/the right to free speech, and electoral reform by implementing a system of proportional representation.[12] By collectively pressuring government to make changes to the political system, economic policies, and social security programs, farm groups believed they were speaking for all Canadian citizens and that it would ultimately lead to a more democratic Canada.

The Centre for Canadian Studies at Mount Allison University states, "Of all Canada's regions, the West participated most enthusiastically in the new era of democracy from 1900 to

1930."[13] Laycock attributes this to the large influx of immigrants in the West, which "created a political culture that was more likely to embrace new ideas than the more traditional political culture of Eastern Canada."[14] The growth in popularity of third parties in the Prairie Provinces supports this line of argument, as considerable success was enjoyed by a number of farmer supported groups: the Non-Partisan League and the United Farmers in Alberta, the Co-operative Commonwealth Federation (CCF) in Saskatchewan, and the United Farmers of Manitoba, among many others. Despite the fact that the Progressives lost significant ground at the federal level due to a lack of organization, many of the core issues were taken up by parties at the provincial level and were also mobilized through farm co-operatives and agricultural organizations.

The second way in which farmers organized was by establishing jointly owned co-operatives. Frustrated over what was perceived to be economic domination from Eastern Canada, Western farmers organized co-operatives to gain more control over the grain economy. "They felt that the only solution was to organize against the well-organized forces of corporate power."[15] By 1905, all three Prairie Provinces had grain growers' associations, which acted as farmers' lobby groups and dealt with private grain companies, the world grain trade, financial institutions, and railways. As one-member, one-vote enterprises, co-operatives allowed farmers to "manage their economic affairs in their own communities, while developing experience in democratic decision-making."[16] During this time, the banking system and grain markets were undergoing reforms in response to many of the issues brought forward by farm organizations. Decentralized grain trading had been suspended during the war and an appointed national board regulated sales and pricing. The board was dissolved after the war but farm organizations sought the reconstitution of the board when prices consecutively fell in 1920 and 1921. Unsuccessful in their efforts, the co-operative marketing organizations, which controlled a third of the country

elevators, partnered to create a pricing arrangement where individual farm sales were pooled together. Three wheat pools were established and operated as successful grain traders and marketers from 1923 to 1929.

The support of third parties and co-operatives was largely enhanced by the mobilization of farm organizations. These groups were designed to lobby government and serve as tools in which the agricultural industry could mobilize broader public support. While there were several groups formed during the early 20th century, the Canadian Council of Agriculture (CCA), which launched in 1909 as a merger between the Grain Grower Associations from the Prairies and the United Farmer organizations in Ontario and Quebec, was one of the most active in the political environment. In 1935, the CCA was renamed the Canadian Federation of Agriculture (CFA), which along with its provincial counterparts remains the largest, and arguably one of the most influential national farm lobbies in Canada.

Lower commodity prices and regional drought caused substantial financial stress on many Prairie farms following World War I. The Saskatchewan government appointed a Royal Commission and Alberta set up an investigative board to inquire into farming conditions. Both inquiries pointed to the advantages of a diversified industry with a mix of crops and livestock, the potential for irrigation, and the need to improve soil conservation. The Royal Commission emphasized that a soil survey be completed to better understand the soil capability in some areas of settlement.[17] However, concerns over ecological management were secondary to better understanding how future economic growth could be enabled. Prairie farmers were eager to expand their operations and towards the end of the 1920s technological developments, especially to machinery, enabled land to be worked with fewer people. By the end of the 1920s, Canada was exporting large amounts of wheat and flour to meet international market demands.

As much of the expansion in the early years of development had been debt financed, 1930-1945 largely represents a period of ***Disaster and Recovery.*** The 1930s were undoubtedly a critical juncture in Canadian Prairie agriculture. Crisis and recovery policies and programs underlined the interconnection of economic, social, and environmental sustainability during this period. Government policy measures were largely reactionary to the economic, social, and environmental dimensions of the crisis.

The collapse of the wheat market in the early 1930s and the concurrent years of drought, wheat disease, grasshoppers, and armyworms hit the Prairie Provinces especially hard. The technological advances in farm production during the 1920s (e.g. mechanized plows for soil tillage), which promoted summer-fallow practices also brought about substantial wind and soil erosion. In fact, the Prairie region was often described to be a "Dust Bowl". With wheat prices reaching a historic low, many farms were abandoned and those farmers who decided to stay sought government help to deal with the overwhelming financial hardship they were experiencing.

Policy responses to the challenges of the 1930s encouraged institutional changes and industry adaptation to better manage the environment as a means to ensure economic and social stability. While the term sustainable development was not specifically used at the time, concerns for long-term sustainability were present in the discourse. Below are excerpts from a 1934 radio address given by Paul F. Bredt, President of the Manitoba Pool Elevators,

> There is also growing up amongst us, as in the older countries, a more definite recognition that the land we live on is not merely a field for careless exploitation but a heritage we should use wisely for ourselves and pass along with its fertility unimpaired to the generations coming after us.
>
> In the past few years we have experienced not one but a series of calamities. Drought and grasshoppers have destroyed the crop on millions of acres. Soil drifting has likely permanently injured a considerable section and enormously added to the

> difficulties of cultivation in far greater areas. Is this a warning by Nature herself that we should take stock? Have we failed to make the best use of our fertile areas? Is it not high time that all who have welfare of this land we live on, at heart, should seriously and soberly consider what adjustments should be made in our farming practices?[18]

Bredt's radio address called on the federal and provincial governments to co-operate to address the "major national problem."[19] In addition, he argued "to assure the success of any policy which may be adopted, it is essential to secure the co-operation of the settlers in the affected area and of our various farm organizations."[20]

The federal government assumed the leadership role in addressing the crisis on the Prairies through policy action. For example, one of the main objectives of the *Prairie Farm Rehabilitation Act* (1935) was to develop technology to solve production problems and gain control of the depressed agriculture economy. Following the *Act's* implementation, subsequent policy action included the introduction of drought tolerant grasses and legumes, distribution of bait for grasshoppers, circulation of information to help farmers understand and control soil drift, distribution of trees to plant shelterbelts, promotion of crop rotation to reduce disease, restoration of natural grasses, formation of community pastures, construction of dugouts to provide on-farm water supplies, creation of local irrigation schemes in some regions (Alberta mostly), and relocation of some farm families. Land management agencies were given authority to withdraw land from agricultural production and control grazing rates where they deemed necessary. Methods of cultivation switched from plows to cultivators, which left stubble near the surface to better control soil erosion. In addition, ongoing research at experimental farms developed rust resistant wheat varieties (Regent in 1934, Thatcher in 1935, Apex in 1937), which helped to remove one of the greatest hazards to Prairie wheat production.[21]

During this time of recovery, the Prairie Farm Rehabilitation Association (PFRA), which had been established under the *Prairie Farm Rehabilitation Act*, was instrumental in enabling changes to land management. The PFRA's mandate was to "rehabilitate land affected by soil drifting and to develop and promote systems of farm practice, tree culture, water supply, and land utilization that would rehabilitate eroded fields and ultimately the economic security of farmers in the region."[22] Through small grants and technological assistance, the PFRA encouraged and enabled farmers to make changes to their operations.

When commodity prices continued to fall, the wheat pools became financially insolvent and the Canadian government was forced to cover the loan guarantee to provide some level of economic stability. The wheat pools continued as grain elevator operators but after 1935 all grain marketing in Canada shifted to a new government agency, the Canadian Wheat Board (CWB) that proceeded to stabilize prices through market intervention. By 1935, the agency operating the wheat pools was formalized under the provisions of the *Canadian Wheat Board Act* (1935). The primary objective of the CWB was to underwrite the minimum price and provide a level of price stability for Western farmers.[23] Four years later in 1939, the federal government passed the *Prairie Farm Assistance Act* (forerunner of the Crop Insurance Program 20 years later) with the objective of trying to secure further economic stability for Prairie farmers.

The fourth general period of Canadian agriculture's development followed World War II. ***Post-War Growth*** (1945-1970) was characterized by further advances in mechanization, growth of livestock production, and increased global demand for farm commodities. This period constituted a major structural change in agriculture as capital investment in Canadian farming more than doubled between 1951 and 1967.[24] Subsidized credit from the Canadian government enabled this large investment, which supported the notion that "larger and more mechanized

farm units increased efficiency, enhanced agricultural productivity, and would make the sector more competitive."[25] Created as part of the *Farm Credit Act (1959)*, the Farm Credit Canada (FCC) program provided loans for farm improvement. Diversification of crop varieties being grown in the 1950s and 1960s, in addition to other technological advances, ultimately led to higher yields and recurrent surpluses in grain production. In the post-war period, dramatic declines in the number of farming operations coincided with an increase in urbanization. Between 1956 and 1961, the number of Canadian farms reduced by 94,000 (16.4% of total farms).[26]

The fifth period of agriculture's development has arguably made the largest impact on the present state of Canadian agriculture. The ***Modernization*** (1970-1990) stage is characterized by greater expansion and intensification of agricultural production. In 1967, the Federal Task Force on Agriculture was appointed to study the state of the Canadian industry. In 1969, the Task Force released their findings and recommendations in the report, *Canadian Agriculture in the Seventies*. The Task Force's suggestions to the federal government included reducing its direct involvement in agriculture, phasing out subsidies and price supports, and helping to reduce the farm population, which they believed was too high to be viable.[27] In addition the report stated, "Inflation and the cost-price squeeze imply that individual farm enterprises must continuously expand and improve efficiency in order to maintain or increase incomes."[28] Roger Epp states,

> A U.S. presidential special commission and a Canadian task force reached essentially the same conclusion: the problem with farm incomes was that there were too many farmers. The future lay in high-volume, specialized, input-dependent and capital-intensive production for export—a "cheap-grain Olympics". The political message was, in the words of the U.S. Secretary of Agriculture, get big or get out.[29]

During this time period, the Canadian government was becoming increasingly concerned about grain transportation and the declining condition of railway infrastructure.[30] The national government appointed Clay Gilson to examine all aspects of the issue. In 1982, the Gilson Report identified the revenue shortfall for the railways was $658.6 million for the 1981-82 crop year and recommended widespread changes to the entire grain delivery system.[31] The "mounting financial losses it [the Crow Rate subsidy] was causing the railways had become unsustainable" and the national government decided to end the Crow Rate.[32] This decision was highly contentious and led to the adoption of the *Western Grain Transportation Act* (1983). The *Act* institutionalized a subsidy to the railways, informally known as the Crow Benefit, and allowed grain-shipping costs to increase gradually and freight rates to rise to compensatory levels.

In 1996, the Canadian government terminated the Crow Benefit as part of larger budgetary cuts to reduce the national deficit. This action is detailed in a later chapter for its impact on the growth and intensification of Manitoba's livestock production. However, what is important to note here is that with increasing costs of grain transportation, Prairie farmers increasingly had smaller profit margins. To compensate, farmers attempted to produce more to make up the difference in financial return. To accomplish higher yields, the use of inputs such as fertilizers and chemicals also increased. Subsequently, the price of inputs consistently grew, adding to the constant financial pressure on farmers.

During this stage of agriculture's development, government policies were largely directed at income stabilization for producers and increasing production rates (e.g. *The Western Grain Stabilization Act,* 1976). Policies that helped manage financial risk contributed to the increase in farm operation size and significant changes to the agricultural landscape accompanied this expansion; the national Farm Credit Canada (FCC) program is an excellent example of this type

of policy initiative. In the early 1970s, decreasing land prices, declining net farm incomes and higher interest rates served to limit farmers' ability to manage their operations and/or expand. To support farmers by making more capital available, FCC was amended to increase loan limits and dropped the minimum age requirement for applicants to 21 years. Farmers were able to acquire loans for farm improvements for projects such as land clearing, purchasing land, and constructing buildings. Eric Montpetit and William Coleman explain that in the post-war period, most OECD countries used a mix of income support, supply control, and border protection policies in an attempt to stabilize agricultural incomes.[33] Furthermore, as governments were interested in increasing productivity and efficiency, policies largely encouraged intensive agricultural production in both the grain and livestock sectors. Montpetit and Coleman argue, "as the intensity of agricultural production rose, so did the potential for damage to the environment."[34]

In 1984, the Standing Senate Committee on Agriculture, Fisheries and Forestry was tasked with examining the issue of soil degradation in Canada. The Committee's report, *Soils at Risk: Canada's Eroding Future*, raised serious environmental and economic concerns regarding the Canadian agricultural industry's impact on soil degradation.[35] With respect to the Prairie region, the Committee stated, "soil degradation problems in the Prairies show very clearly that something must be done. The current agricultural system is obviously not a sustainable one."[36] The Committee concluded that soil degradation was intrinsically linked with the intensification of agricultural production as farmers responded to economic pressures.[37] The Committee stated,

> To date one of the major drawbacks to soil conservation has been the emphasis on increased production. This has resulted in creation of policies, which have ignored or unintentionally worked against good soil management. Low commodity prices and input costs have also pushed farmers to continuously increase yields–simply to remain financially afloat.[38]

As such, among the Committee's recommendations were investments to conservation research, farmer education, and financial incentives to enable farmers' adoption of better management practices. The Committee suggested, incentives, "appropriate to local needs", would "help defray the costs of conservation practices."[39] Largely as a result of *Soils at Risk*, a number of soil conservation councils were created including the Soil Conservation Council of Canada, the Eastern Canada Soil and Water Conservation Centre, and the Saskatchewan Soil Conservation, among others.

There are two main observations to be made from the historical overview of Canadian agriculture's development. First, public policies and programs have, for the most part, been guided by technological developments, market signals, and broader economic goals such as regional settlement, job creation, and economic growth. Science and research have also largely been focused on growth and productivity, which reflects the policy objectives of consecutive Canadian governments.[40] A number of trends, specifically consolidation, intensification, and conversion of natural capital, have been present within Canadian agriculture for decades. However, as the following chapter discusses, these trends have escalated since the 1990s and are largely due to the overwhelming focus on economic objectives.

The second important observation that can be drawn from the historical analyses is that Canadian farmers have mobilized to push for policy change when they were concerned with the sustainability of the industry–though maybe not using the exact terminology. The social and economic pressures on agriculture are constant and farmers have responded by lobbying government to enact better and more effective policy to promote stability. Throughout history, Canadian farmers have mobilized through a variety of ways including political parties, co-

operatives, and farm organizations to present their concerns to government and bring awareness to the public.

As the political system evolved and the farm population declined, farmers have steadily relied more on non-partisan representative groups to represent their interests in the policy environment. Presently there is a multitude of industry groups within the Canadian policy environment and there is often division in ideology and interests being promoted. There are two national farm organizations: the Canadian Federation of Agriculture (CFA) and the National Farmers Union (NFU). The CFA is an umbrella organization and is affiliated with a number of provincial groups (e.g. Keystone Agriculture Producers in Manitoba, Quebec Union des Producteurs Agricoles). The National Farmers Union (NFU) is a direct membership organization representing farmers who produce a variety of commodities. In addition, there are various commodity groups that lobby government directly on policy matters affecting their sector (e.g. Canadian Cattlemen's Association, Western Canadian Wheat Growers' Association). Andrew Schmitz writes, "When governments seek input from producers to develop agricultural policy, they get very different advice, depending on which group is speaking."[41] Therefore, I argue that when these groups, often with diverse interests, come together to support a policy initiative, it is worthy of notice. As will be discussed in a forthcoming chapter, the programming concept and other ALUS projects across the country gained this broad support.

Growing concerns related to agriculture's impact on the environment have led to questions related to the industry's sustainability and the societal roles it serves. To better understand how agriculture fits into the broader discussion of sustainable development, it is necessary to examine the concept of sustainable development.

## 1.2 Sustainable Development

Sustainable development dialogue, which continues to be a part of many academic fields, policy circles, and industry groups, is an important part of translating both economic and environmental goals into reality. This study regards sustainable development as a policy concept that considers economic, environmental, and social factors to be interdependent in working towards societal objectives related to citizens' quality of life such as a stable economy, a healthy environment, and a safe and secure food supply. As such, development is presented as a qualitative term rather than as quantitative growth. Furthermore, sustainable development is best understood as a broad framework that encapsulates key principles, values, discussion, and policy action in multiple policy fields (e.g. agriculture, forestry, urban planning).

*Our Common Future,* a 1987 United Nations report, sparked international dialogue in the late 1980s regarding the interconnection of economic, social, and environmental objectives. The Brundtland Report, which it is often referred to as, is largely credited with popularizing the term sustainable development. The sustainable development concept has remained a feature of international discussion since the late 1980s. A 2008 OECD report states, "... sustainable development has become a kind of conceptual touchstone, one of the defining ideas of contemporary society."[42] However, Mark Mawhinney argues, "Sustainable Development as a concept promises many things to many people."[43] This statement raises questions regarding how, or if, the concept can be defined, how valid criticisms are that argue the term is too vague to be useful, and what are key takeaways of the discourse and debate when it comes to underststanding sub-fields such as sustainable agriculture.

As a term, sustainable development became popularized in the late 1980s but its conceptual roots go back much further. The International Institute for Sustainable Development

(IISD) has devised a timeline of milestones in the journey of the sustainable development concept. At the beginning of this timeline, the IISD credits Rachel Carson's 1962 book, *Silent Spring,* as a "turning point in our understanding of the interconnections among the environment, the economy, and social wellbeing."[44] Carson's work presented research on toxicology, ecology and epidemiology and suggested that agricultural pesticides in the United States were building to critical levels and could be linked to environmental damage and human and animal health problems.[45] *Silent Spring* provoked discussion and forced a deeper look at how human actions were connected to the environment and why the consequences of short and long-term degradation demanded greater attention. In addition, Carson's work demonstrates that agricultural production has been connected to the sustainable development discourse from the very beginning.

The establishment of the International Institute for Environment and Development (IIED) in the United Kingdom (1971) was also a significant point in setting the groundwork for the sustainable development concept to evolve. The IIED's mandate was to seek and promote ways for countries to make economic progress without destroying environmental resources. In addition, the United Nations (UN) Conference on the Human Environment (1972) and the International Conference on Environment and Economics (1984) laid groundwork for future UN reporting on the connection between economic, social, and environmental considerations. The Stockholm Conference (1972), as it is commonly referred to, focused on pollution and acid rain problems of Northern Europe and it led to the establishment of many national environmental protection agencies and the United Nations Environment Programme (UNEP).[46] A 1984 OECD conference concluded that the environment and economics should aspire to be mutually

reinforcing.[47] The conclusions of the conference subsequently helped shape the 1987 UN report, *Our Common Future*.

In 1987, the United Nations World Commission on Environment and Development, chaired by Norwegian Prime Minister Gro Harlem Brundtland, published *Our Common Future* (The Brundtland Report). The report's central recommendation was that "the way to square the circle of competing demands for environmental protection and economic development was through a new approach: sustainable development."[48] *Our Common Future* defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."[49]

At the UN Conference on Environment and Development (UNCED), which took place in Rio de Janeiro, Brazil in 1992, more than 180 of the world's political leaders pledged their support for the goal of sustainable development. Informally known as the Earth Summit, the gathering of political leaders, delegates from the UN and other international organizations, world media, and hundreds of non-governmental organizations (NGOs), was one of the largest international gatherings ever held. While there were few firm commitments that resulted from the conference, the scale of the event demonstrated that the topic of sustainable development was garnering widespread attention from the international community. Important documents emerging from the conference included a broad non-binding statement of principles relating to development and the environment titled the *Rio Declaration on Environment and Developments;* a non-binding declaration on forest management principles; conventions on climate change and biological diversity; and a detailed program of action principles at the national and international level—better known as *Agenda 21* (Agenda for the 21st Century).[50] A global program for action and development was embodied in the guiding principles of Agenda 21, which called on national

governments to not only adopt strategies for sustainable development but also encourage broader grassroots participation from non-government organizations and the public.

Since 1992, a number of international gatherings and events have kept sustainable development on the agenda. Some notable examples are as follows. In 1993, the UN Commission on Sustainable Development held its first meeting as a follow up to UNCED and outlined principles for enhancing international co-operation and intergovernmental decision-making. In 1995, the World Summit for Social Development took place in Copenhagen and commitments were made by government leaders to eradicate poverty and related issues. In 1998, a controversy was sparked by environmental and food security concerns of genetically modified organisms (GMOs). The European Union implemented trade barriers on GMO crop imports from North America as a result. In 2000, the UN Millennium Development Goals were established at the largest ever gathering of world leaders. Global leaders agreed to a set of time-bound (2015) and measurable goals for combating issues including poverty, hunger, disease, discrimination, illiteracy, and environmental degradation. This gathering was followed by the 2002 World Summit on Sustainable Development in Johannesburg, which marked a decade since the UNCED. In response to a "climate of frustration at the lack of government progress", the summit promoted "partnerships" as a non-negotiated approach to sustainability objectives.[51]

The international meetings and events mentioned above are by no means an all-inclusive list; rather, the examples cited demonstrate the continuing presence of the sustainable development agenda over the last three decades. These gatherings and agreements, binding and non-binding, have ultimately fostered a discussion regarding the interconnection of economic, social, and environmental development.

Robert Morrison explains, "sustainable development, as a concept, seeks to build a future world by balancing three sets of factors over time: economic, environmental, and social. It sees these dimensions as complementary rather than competitive."[52] The fundamental principles of sustainable development are that our actions must take into account effects on the environment, economy, and society, and that what we do today should not compromise the well-being of future generations. George Hoberg adds that sustainable development is advanced by a broad range of actors in environmental policymaking largely due to the term's vagueness.[53] To environmentalists it offers the promise of environmental protection; to industry it offers the promise of continued economic growth. The terms sustainability and sustainable development are widely used in the discussion of policy objectives. Dick Winchell states,

> Many of these debates have been framed in recent years within the context of sustainable development and the need for a balance to be struck between competing economic, social and environmental considerations. Whilst the term 'sustainable development' itself is a chaotic, slippery and immeasurable one to use, its attractiveness for governments and policy-makers seems unlikely to abate... .[54]

The environmental scientist Tim O'Riordan argues in his 1988 work, "The Politics of Sustainability", that the reason for the popularity of the sustainable development term is that it can be used both by environmentalists, emphasizing the sustainable part, and by developers, emphasizing the development part.[55] As such, O'Riordan criticizes the term's vagueness and argues that it would allow people to claim almost anything as part of sustainable development—thus reducing the term to "meaningless".[56] Simon Dresner presents a different perspective and explains that while there is no one clear definition or consensus of sustainable development it does not mean the term is meaningless.[57]

Sustainable development is often regarded as a "bridging concept".[58] This conceptual meeting point rests on the belief that it is possible for government to support both economic

activity and environmental stewardship in a way that achieves a balance for short and long-term objectives. However, while this ideal of reaching a balance is a positive aspiration, it has also drawn criticism regarding valuation, perceived trade-offs, societal priorities, and translation into policy action.

The suggestion of a balance implies a relative equilibrium, which is extremely complex, not to mention problematic, given the uncertainty of thresholds and levels of compliance and adaptation. However, the Brundtland Report's explanation that sustainable development should not be understood as a "fixed state of harmony but rather a process of change", allows for some flexibility in how sustainability can be functionally interpreted and applied through policy action.[59] Whether sustainable development is regarded as a conceptual set of principles, a process, or an end goal, the multitude of perspectives highlight various elements of what the term represents and ultimately contributes to an understanding of how components of sustainability (e.g. sustainable agriculture) can fit within the broader discourse.

The aspiration of sustainability is undoubtedly optimistic. However, it is necessary to be mindful of the potential conflicts that economic productivity and sustainability pose in the short and long-term when policy measures may favour one pillar of sustainability over another. As Glen Toner and James Meadowcroft argue, despite the three pillars of sustainable development (economic, social, and environmental), it has been the "environmental pillar that has been systematically neglected" in Canada.[60]

A very important aspect of the difficulty in defining sustainable development is that people do not agree on what development actually means.[61] Simon Dresner's *The Principles of Sustainability* (2008) cites Nitin Desai who worked on the Brundtland Report: "the issue is not defining sustainable development, but understanding it. ... The value of any definition of

development is simply the clue that it gives to the moral premises of the person who's giving the definition."[62] Dresner adds, "The problem in agreeing on the meaning of sustainable development is not fundamentally about agreeing on a precise definition, but about agreeing upon the *values* that would underlie any such definition."[63] As such, with a multitude of perspectives involved in the dialogue, it is natural that there is debate and discussion about the values that sustainable development should embody.

There is a lack of consensus on how to define sustainable development and even less agreement on how to pursue its principles through policy action. However, Robert Kates argues,

> sustainable development draws much of its resonance, power, and creativity from its very ambiguity ... it has allowed for an open, dynamic and evolving idea that can be adapted to fit … very different situations and contexts across time and space … its openness to interpretation enables participants at multiple levels … within and across activity sectors … to redefine and re-interpret its meaning to fit their own situation ... the creative tension between a few core principles and openness to re-interpretation and adaptation to different social and ecological contexts provides it with the elasticity needed to remain enduringly relevant.[64]

Policy development and business strategies across the globe have reflected an acknowledgement of the linkages that exist among economic, social, and environmental objectives within nations and across borders. International discussion facilitated a platform for dialogue and undoubtedly influenced Canadian policymakers in the 1990s to begin adopting policies that promoted sustainable development.

In *Sustainable Development in Canada*, Dwivedi et al. explain that the mission of Environment Canada in the 1990s was to "make sustainable development a reality in Canada by helping Canadians live and prosper in an environment that needs to be protected, respected and conserved."[65] Dwivedi et al. cite the annual National Round Tables on the Environment and the Economy that began in 1988, Canada's Green Plan (1990), and the *Environmental Assessment Act* (1992), as policy action that represented a move towards incorporating sustainable

development objectives.[66] Building off the work of the National Task Force on Environment and Economy established in 1986, the Green Plan was put forth by the Mulroney government in 1990. The Task Force's mandate was to recommend steps that would move the Canadian government towards sustainable development. The objective of the Green Plan was "to secure for current and future generations a safe and healthy environment and a sound and prosperous economy."[67] Federal departments and agencies were required to produce plans for implementing sustainable development and to submit annual progress reports. In addition, the Office of the Commissioner of Sustainable Development was created in 1995 to assess the federal government's efforts to achieve sustainable development goals. However, Dwivedi et. al state,

> Environment Canada's acceptance of the concept of sustainable development did not mean that the Department suddenly possessed all the means necessary to fulfil its mandate. In fact, and as always, it remained subject to the priorities of its political masters, and the records of both the Mulroney and Chretien governments show a remarkable inconsistency in the realm of environmental policy and practice. Indeed, every step forward seems to have been followed by a step backward.[68]

Dwivedi explains that the Mulroney government's spending of only 30% of the funds allocated to the Green Plan's various programs, the Chretien government's shelving of the Green Plan in 1993, and its move away from the regulatory approach in the late 1990s, all represented a shift in focus from the environment and sustainable development policy towards economic concerns such as deficit reduction.[69]

The discussion will now turn to an important subset of sustainable development: sustainable agriculture. The following section discusses the term and details how change in the policy environment began to take shape leading up to Manitoba's adoption of the Blanshard ALUS pilot project.

## 1.3 Sustainable Agriculture and Policy Trends Leading up to ALUS

Agriculture is deeply intertwined in the discourse related to sustainable development.[70] There are three main reasons for this attention. First, agriculture occupies large areas of land in both developed and developing countries. As an industry, the land base that is enrolled in production is far more extensive than any other, with the possible exception of forestry. Therefore, the management of agricultural lands can have widespread and major environmental impacts within countries as well as across international borders. Second, one of the main goals of agriculture is to produce food to meet societal demands. Food production is one of the basic foundations of human society and we are dependent on the ability of the farmers to produce a safe, stable, and quality food supply. Third, the agricultural industry provides jobs, directly and indirectly, and generates substantial wealth for the economy, which allows governments the ability to provide broader services to citizens.

The IISD defines sustainability as "the capacity of a system to endure over time."[71] Understanding sustainable agriculture as part of the broader pursuit of sustainable development is important. The key to sustainable agriculture is that economic, social, and environmental considerations cannot be separated. There are three main components of a sustainable agricultural industry: environmental stewardship including management, conservation, and rehabilitation; economic viability, which includes market demands, input costs, scientific and technological innovation, and trade policies; and social concerns such as employment, rural development, and global responsibilities.[72] Agricultural sustainability depends upon two critical components: first, how the agricultural industry and farmers can best meet continuing demands without adversely affecting the resource base; and second, how policy action enables economic

stability while acknowledging social and environmental considerations as key parts of long-term sustainability.

From the initial stage of settlement, the landscape of the Prairies gradually changed. Farm operations continued to get larger due in part to government stabilization policies, increased urbanization, and application of technology. In addition, land in the Prairie region was increasingly cleared for crop production. While total number of Canadian farm acres in production reached its peak in 1966 (174,120,560 acres), the Prairie Provinces demonstrate patterns of consistent growth with only minor fluctuations from 1921-2011 (Appendix C).[73] Economic growth in agriculture has remained a central priority of Canadian governments and science and technology have fostered increasing yields through mechanization and application of pesticides, herbicides, and fertilizers. Small family farms have either disappeared or become increasingly specialized and business-focused as they have adapted to the capital-intensive nature of the industry.

Market volatility, extreme weather, crop disease, and increasing costs of inputs (e.g. grain shipping, fuel, chemical fertilizer) have put pressure on farmers to increase production. In turn, the increased agricultural production has had a significant environmental impact. Environmental conditions related to soil, water, terrain, and climate impose constraints and provide opportunities for agricultural producers. Technology has enabled increases in production by addressing challenges posed by environmental conditions. The environment has often been seen as an obstacle to be conquered or as having potential for expansion and economic growth. However, agriculture's expansion and intensification has impacted the environmental landscape with land clearing and wetland drainage. Sustainable agriculture has been largely equated to economic stability and this focus has overshadowed environmental considerations. A good

example is provided by the IISD in *Sustainability of Canada's Agri-food System: A Prairie Perspective* (1994). The IISD explains,

> In 1980, the Canadian Wheat Board (CWB) forecasted that by 1990 grain exports would require Prairie production levels exceeding 55 million tonnes. … agricultural scientists suggested the available resources and technology made the targeted output feasible. Few questions were raised with respect to the effect upon soil and water quality, or ecosystem diversity and stability. If the targeted output was to be achieved with minimal ecosystem disturbance, the date may have had to be postponed.[74]

Conceptions of agricultural sustainability and related policy action have largely been equated to ensuring economic viability and the ability to support additional government goals including initial settlement of the Prairie region, supplying the manufacturing base in Eastern Canada, providing jobs for returning soldiers, and maintaining Canada's significant role in global commodity production. However, while the objective of environmental management seems to have been secondary to economic production, this is not to say that farmers have been unaware of the connection between environmental stewardship and their production practices. For example, the crisis of the 1930s, caused by both depressed export commodity markets and environmental conditions on the Prairies, was a significant juncture point in Canadian agriculture. Arguably, for the first time in Canada, government policymakers and farmers focused greater attention on the linkage between economic objectives and environmental conditions.

The global discussion facilitated by the Brundtland Report in the late 1980s and subsequent international gatherings on the topic of sustainable development helped bring increased attention to sustainability issues throughout the world. Agriculture and the roles the industry performs have been a central topic within global discussion and have enabled a dialogue on what sustainable agriculture is and what related objectives should be. In particular,

agriculture's environmental role gained considerably more attention compared to previous decades. *Agenda 21* stated,

> Major adjustments are needed in agriculture, environmental and macroeconomic policy, at both the national and international levels, in developed as well as developing countries, to create the conditions for sustainable agriculture and rural development. The major objective of sustainable agriculture and rural development is to increase food production in a sustainable way and enhance food security. This will involve education initiatives, utilization of economic incentives and the development of appropriate and new technologies, thus ensuring stable supplies of nutritionally adequate food, access to those supplies by vulnerable groups, and production for markets; employment and income generation to alleviate poverty; and natural resource management and environmental protection.[75]

In 1992, the Parliamentary Standing Committee on Agriculture formally acknowledged agricultural sustainability in their report, *The Path to Sustainable Agriculture.* The Committee recognized that the industry's long-term viability was dependent on economic and social factors but also ecological conservation. The Standing Committee's report made a number of recommendations, among them was the creation of educational and incentive programs, which would assist agricultural producers with environmental stewardship and address the economic hardships being felt by individual producers. However, in the 1990s, these recommendations coincided with a period of extensive budgetary cuts to reduce government deficits at both the federal and provincial level.

Fiscal feasibility and available resources greatly determine whether a government pursues a policy direction. Furthermore, the distribution of government resources is linked to shifting priorities and is often determined by larger political goals. Dwivedi states that from 1992 to 1999, the budget of Environment Canada declined by more than 70%.[76] Furthermore, Mark Winfield explains that between the years 1993 and 1998 almost all Canadian provinces significantly reduced their budgets in the area of the environment. These cuts ranged from 30% in the case of Alberta to over 60% in the case of Newfoundland.[77] As Winfield argues, these

budgetary reductions translated to a loss of capacity especially in terms of enforcing environmental regulations.[78] At the national level, the Liberal government made a number of cuts to department budgets and expenditures as part of the National Program Review beginning in 1994. Agriculture was one of eleven departments singled out for the greatest cutbacks and many long standing farm programs and subsidies were eliminated including freight rate assistance (Crow's Nest Benefit), inspection services, and research programs. Between 1995 and 1998, the overall budget for Agriculture Canada was decreased by over 21% and the affiliated staff reduced by 20%.[79] With budgetary cuts in both the areas of agriculture and the environment, the objective of sustainability was eclipsed by a focus on enabling increased production in the resource sectors. Moreover, there was little policy action devoted towards developing a long-term strategy for sustainable development.

In the early 2000s, government attention towards environmental issues was growing in limited areas, largely in response to greater public attention of issues such as water pollution and climate change.[80] Furthermore, the policy approach the federal government was taking towards many sectors, including agriculture, slowly began to incorporate more environmental considerations. Anthony Downs, Kathryn Harrison, Michael Howlett and Sima Joshi-Koop have all provided explanations regarding the shifting nature of government attention towards environmental policy.[81] Howlett and Joshi-Koop argue,

> Canadian environmental policy can be understood as a cyclical process of active policy selection and passive policy implementation in the context of two significant mitigating forces: a shifting understanding of environmental problems, and an expanding and changing policy tool kit available to address them.[82]

A 2000 Agriculture and Agri-Food Canada report, *Environmental Sustainability of Canadian Agriculture*, stated,

> Government agricultural policy has traditionally focused on economic and production objectives. More recently, policy reform has been guided by environmental considerations, along with more traditional social and economic criteria. The sector has also responded to driving forces with a wide array of voluntary initiatives and changes in management practices.[83]

This shift towards environmentalism also coincided with a policy trend toward deregulation in government in which policymakers sought alternative policy tools to regulations.[84] This trend framed the discussion of the ALUS programming concept and the pilot project proposal in the period 2000-2005.

As Frank Casey et al. argue, a broader trend existed in North America of governments moving towards deregulation or "smart regulation"[85], privatization, and devolution.[86] With regard to addressing environmental issues in Canada, the federal and provincial governments have typically favoured the regulatory model.[87] However, a notable shift in Canadian environmental policy was taking place that demonstrated a move away from a substantive policy approach based mainly on regulation towards a more flexible, consultative approach, incentive-based programs, and an emphasis on "voluntary regulation".[88] Policy action towards primary agriculture was also following the trend of incorporating more environmental objectives, as well as seeking to adopt alternative policy tools to work towards sustainability goals.

In 2002, a decade after *The Path to Sustainable Agriculture* report was released, the federal and provincial governments made a significant step with the creation of the Agricultural Policy Framework (APF). The policy initiative included five pillars that combined to form a strategy to ensure a more stable agricultural industry—one of which was the central tenet of ecological capacity and stewardship.[89] The joint federal-provincial agreement acknowledged the economic pressures faced by agricultural producers and established the Farm Stewardship Program, which provided financial, technical, and educational assistance to identify, implement,

and measure environmental practices through the creation of Environmental Farm Plans (EFPs). EFP certification workshops allowed individual farmers to identify environmental risks and benefits from their own operations and develop an action plan. EFPs were administered at the provincial level while adhering to national standards and objectives, which enabled a consistent approach across Canada with the goal of achieving environmental objectives in the areas of air, soil, water, and biodiversity.[90]

The Canadian agricultural industry responded positively to the Farm Stewardship Program and there was a high participation rate to create EFPs. It was anticipated that over 75% of Canadian farm operations would have implemented EFPs by the end of 2008.[91] In Manitoba, as of September 2008, 6530 producers completed an EFP workshop and 5611 received their *Statement of Completion.*[92] Once receiving EFP certification, farmers were allowed to apply for a cost-shared program, which helped to offset the costs of implementing beneficial management practices (BMPs) by 30% to 50% of total cost depending on the project (e.g. GPS technology for precision farming, improved manure storage tanks, riparian area management). Farmers were required to submit receipts before receiving payment.

The EFP program proved to be extremely successful within the farming community as producers demonstrated their commitment to environmental management when they were made aware of environmental BMPs and were enabled through education and funding to implement them. BMPs, which promote methods that help to mitigate harmful impacts caused by production, can potentially improve a farmer's profit margins. Maintaining environmental integrity is crucial to long-term viability of farm operations. Moreover, developing new techniques that lead to more efficient practices and the reduction of costly inputs also contributes to economic stability for farm families.

The EFP program coincided with an economic crisis in Canadian agriculture. In the early 2000s, many agricultural sectors were experiencing financial hardship. Farmers were subject to increasing input costs and depressed commodity markets and many coped by increasing their debt load and maximizing production levels through consolidation and intensification. In addition, consecutive years of bad weather in the Prairie region and the discovery of BSE in March 2003 combined to cause a major financial crisis especially in the three Prairie Provinces, where the majority of beef and grain producers were, and still are, located. As many farmers were in financial distress, the federal-provincial APF and the EFP program enabled farmers to implement BMPs during a time in which finances were strained. Moreover, the APF demonstrated the potential of an intergovernmental initiative that encouraged compliance to changing standards through incentives and education rather than the alternative of regulations and penalties. The EFP program was a new approach to promoting the environmental role of agriculture and it was considerate of the economic realities within the farming community.

The policy trends discussed in this section, in part, contributed to a policy environment in Manitoba that was more receptive to a new policy tool like ALUS. Manitoba's involvement in the federal-provincial APF, and the EFP initiative in particular, provided the provincial government with policy experience. Manitoba gained valuable insight by administering an incentive-based agri-environmental program and better understanding the willingness of farmers to participate in such a policy initiative.

## 1.4 Summary

Canada's primary agricultural industry has progressed through a series of stages and has been shaped by technology, market signals, the environment, and government policies. These elements have all combined to reflect an overarching theme of enabling increased production and

promoting broader economic goals. In response to the financial risks and downturns that periodically affect the industry, farmers' ability to adapt to challenges and opportunities has been essential. Furthermore, farmers have mobilized to push for policy action when they have expressed concerns with agriculture's sustainability.

Since the 1980s, the sustainable development concept has been discussed and debated at the international level. The attention to goals and principles that have been identified have kept related issues on the agenda for policymakers. Despite criticisms, the underlying values of what the term sustainable development represents have brought different voices and perspectives forward to influence interconnected policy decisions. Ongoing discussion has facilitated a greater awareness of the linkages among economic, social, and environmental considerations and has served to influence policy decisions around the world.

The nature of Canadian agriculture has historically been economically driven and government policies have supported this focus. However, towards the late 1990s a shift in approach towards Canadian agriculture began to take place. International dialogue and programming influenced Canadian policy actors in the 1990s and was arguably a key factor within the policy environment that served to enable policy change towards primary agriculture in the early 2000s.

Policy trends at both the federal and provincial level suggest that Canadian governments were shifting their approach towards agriculture and its environmental role. A new policy framework and programming had been created to encourage and enable farmers to improve their land stewardship. The federal-provincial APF was a significant step as the intergovernmental initiative established a framework for policies and programs that sought to connect the many roles of agriculture and enable economic stability and improved land stewardship. The EFP

program established national standards and goals and farmers across Canada demonstrated their support for the initiative that brought together economic and environmental objectives. The shift towards alternative programming recognized the environmental role of farmers and enabled them to implement BMPs during a time of financial stress within the industry.

## Notes

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[2] Ellen Wall, Barry Smit, and Johanna Wandel, eds., *Farming in a Changing Climate: Agricultural Adaptation in Canada,* (Vancouver: UBC Press, 2007), 3.
[3] Based on 2006 Census. Canada, Statistics Canada, *A statistical portrait of agriculture, Canada and provinces: census years 1921 to 2006*, January 2009 [Online]
[4] I acknowledge that indigenous agriculture in Canada dates back much further. In addition, agriculture in the Easter provinces also begins well before the 1880s. However, the decision was made to start the timeline of Canadian agriculture's development at the initial period of settlement in the West beginning in the 1880s as to focus on the industry's stages of evolution. What could be considered as a national industry commenced with the settlement of Prairie Provinces. I wanted to focus on the evolution of the national industry to gain a better sense of policies and programs directed at the industry and the mobilization of interests. Again, the discussion presented in this section is not meant to be an all-inclusive historical account of Canadian agriculture but rather highlight some key topics in the national industry's evolution.
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[6] David Laycock, "Prairie Farmers in Politics: An Historical Perspective", In Barry Wilson, David Laycock, and Murray Fulton, *Farm Interest Groups and Canadian Agricultural Policy*, (Centre for the Study of Co-operatives. Saskatoon: University of Saskatchewan, 1988), 10.
[7] Ibid., 9.
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[14] The Centre for Canadian Studies, "Prairie political traditions, 1914-35", Mount Allison University, 2001 [Online]
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[16] The Centre for Canadian Studies, "Western Canadian Development and Political Protest, 1867-1914", Mount Allison University [Online]
[17] Art Wilson and Allen Tyrchniewicz, *Agriculture and Sustainable Development: Policy Analysis on the Great Plains,* (Winnipeg: International Institute for Sustainable Development, Art Wilson, 1995), 23.
[18] Paul F. Bredt, "The Land We Live On", Radio Address, November 7, 1934 [Online]
[19] Ibid.
[20] Ibid.
[21] Wheat rust is fungal disease affects the stems, leaves, and grain of wheat, barley and rye. The fungal disease causes devastating yield losses as its spores spread quickly beyond the initially infected area primary through wind transfer easily affecting a widespread geographical region. Tom Fetch, et al., "Rust diseases in Canada", *Prairie Soil and Crops Journal*, 4, (2011), 1.
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[45] Rachel Carson, *Silent Spring*, (Boston: Houghton Mifflin, 1962).
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[47] Ibid.
[48] Simon Dresner, *The Principles of Sustainability*, (London: Earthscan, 2002), 1. The sustainable development term had been coined seven years earlier in the World Conservation Strategy (1980), but the Brundtland Report is largely credited with popularizing it. Neil W. Adger and Andrew Jordan, eds., *Governing Sustainability*, (New York: Cambridge University Press, 2009), 8.
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[57] Ibid., 69. Sustainable development as a broad concept has encouraged important discussion and debate on related issues and has allowed for a meeting point in the discourse between environmentalists and economic developers. Therefore, the constructive ambiguity of sustainable development allows for interpretation, which can either be regarded as a strength or weakness depending on one's perspective. Simon Bell and Stephen Morse, *Sustainability Indicators: Measuring the Immeasurable*, (London: Earthscan Publications, 1999), 10.
[58] Glen Toner and James Meadowcroft, "The Struggle of the Canadian Federal Government to Institutionalize Sustainable Development", In Debora L. VanNijnatten and Robert Boardman, eds., *Canadian Environmental Policy and Politics: Prospects for Leadership and Innovation,* 3rd ed., (Oxford: Oxford University Press, 2009), 79.
[59] Simon Dresner, *The Principles of Sustainability*, (London: Earthscan, 2002), 35.World Commission on Environment and Development, *Our Common Future*, (Oxford: Oxford University Press, 1987).
[60] Glen Toner and James Meadowcroft, "The Struggle of the Canadian Federal Government to Institutionalize Sustainable Development", In Debora L. VanNijnatten and Robert Boardman, eds., *Canadian Environmental Policy and Politics: Prospects for Leadership and Innovation,* 3rd ed., (Oxford: Oxford University Press, 2009), 79-80.
[61] Simon Dresner, *The Principles of Sustainability*, (London: Earthscan, 2002), 74.
[62] Ibid.,70.
[63] Ibid.
[64] Robert W. Kates, Thomas M. Parris, and Anthony A. Leiserowitz, "What is Sustainable Development? Goals, Indicators, Values and Practice", *Environment: Science and Policy for Sustainable Development*, 47, 3 (2005), 20.
[65] Dwivedi et al. cite the mission statements from the Department of Environment Canada for the years 1990, 1995, and 1998. O.P. Dwivedi, Patrick Kyba, Peter J, Stoett, and Rebecca Tiessen, *Sustainable Development and Canada: National and International Perspectives*, (Peterborough: Broadview Press, 2001), 65.
[66] Ibid., 64.
[67] Ibid., 65.
[68] Ibid., 67.
[69] Ibid., 67-68.
[70] Simon Bell and Stephen Morse, *Sustainability Indicators: Measuring the Immeasurable*, (London: Earthscan Publications, 1999), 7.
[71] Ian Morrison and Daryl Kraft, eds., *Sustainability of Canada's Agri-food System: A Prairie Perspective*, International Institute for Sustainable Development, 1994 [Online]
[72] Art Wilson and Allen Tyrchniewicz, *Agriculture and Sustainable Development: Policy Analysis on the Great Plains*, (Winnipeg, MB: International Institute for Sustainable Development, 1995), 53-55.
[73] Canada, Statistics Canada, "A Statistical portrait of agriculture, Canada and provinces: census years 1921-2006", January 30, 2009 [Online]. Also see: Canada. Statistics Canada, "Snapshot of Canadian Agriculture: Census 2011", May 23, 2012 [Online]
[74] Ian Morrison and Daryl Kraft, eds., *Sustainability of Canada's Agri-food System: A Prairie Perspective*, International Institute for Sustainable Development, 1994 [Online]
[75] United Nations, *Agenda 21,* United Nations Conference on Environment & Development, (Rio De Janerio, Brazil: UN, 1992). [Online] Also see: Art Wilson and Allen Tyrchniewicz, *Agriculture and Sustainable Development: Policy Analysis on the Great Plains*, (Winnipeg, MB: International Institute for Sustainable Development, 1995), 8.
[76] While much of this decrease can be attributed to the transfer of Parks Canada to the Department of Canadian Heritage, Dwivedi et. al argue that "it is still a fact that the monies granted to the Department to fulfil its mission declined by approximately 30 per cent during 1995 with a predictable impact on its ability to perform its many tasks", O.P. Dwivedi, Patrick Kyba, Peter J, Stoett, and Rebecca Tiessen, *Sustainable Development and Canada: National and International Perspectives*, (Peterborough: Broadview Press, 2001), 68.
[77] Mark S. Winfield, "Environmental Policy and Federalism", In Herman Bakvis and Grace Skogstad, *Canadian Federalism: Performance, Effectiveness, and Legitimacy*, (Don Mills: ON, Oxford University Press, 2002), 132.

[78] Ibid.
[79] Barry Wilson, "Budget kills Crow, slashes Ag Canada", *Western Producer*, March 2, 1995 [Online]
[80] David Zilberman, "Introduction", In Frank Casey, Andrew Schmitz, Scott Swinton, and David Zilberman, eds., *Flexible Incentives for the Adoption of Environmental Technologies in Agriculture*, (Norwell, Massachusetts: Kluwar Academic Publishing, 1999), 1.
[81] Anthony Downs, "Up and down with ecology: The issue-attention cycle", *The Public Interest*, 28 (1972), 38-50. Kathryn Harrison, *Passing the Buck: Federalism and Canadian Environmental Policy*, (Vancouver: University of British Columbia Press, 1996). Michael Howlett and Sima Joshi-Koop, "Canadian Environmental Politics and Policy", In John C. Courtney and David E. Smith, *The Oxford Handbook of Canadian Politics*, (Toronto: Oxford University Press, 2010), 472.
[82] Anthony Downs, "Up and down with ecology: The issue-attention cycle", *The Public Interest*, 28 (1972), 38-50. Kathryn Harrison, *Passing the Buck: Federalism and Canadian Environmental Policy*, (Vancouver: University of British Columbia Press, 1996). Michael Howlett and Sima Joshi-Koop, "Canadian Environmental Politics and Policy", In John C. Courtney and David E. Smith, *The Oxford Handbook of Canadian Politics*, (Toronto: Oxford University Press, 2010), 472.
[83] Canada, Agriculture and Agri-food Canada, T. McRae, C.A.S. Smith, and L.J. Gregorich, eds., *Environmental Sustainability of Canadian Agriculture: Report of the Agri-Environmental Indicator Project,* (Ottawa: Minister of Public Works and Government of Canada Services, 2000), 3.
[84] Deregulation refers to the removal of legal controls. It can involve the removal of an agency, a program, or specific regulations. It can involve a complete or a partial withdrawal of existing regulatory constraints.
[85] As part of the regulatory reform movement at the federal level the Chretien/Martin governments adopted the slogan "smart regulation" to describe an approach which was based on the best scientific evidence, was justified by cost-benefit analysis, was supported by the stakeholder community and entailed the notion of regulatory reasonableness which meant an avoidance of over-regulation. For further explanation of smart regulation, please see Canada, External Advisory Committee on Smart Regulation,
*Smart Regulation: A Regulatory Strategy for Canada,* September 2004 [Online]
[86] Frank Casey, Andrew Schmitz, Scott Swinton, and David Zilberman, eds., *Flexible Incentives for the Adoption of Environmental Technologies in Agriculture,* (Norwell, Massachusetts: Kluwar Academic Publishing, 1999). Also see: R. B. Gibson, *Voluntary Initiatives: The New Politics of Corporate Greening*, (Peterborough: Broadview Press, 1999).
[87] Mark Winfield, "Policy Instruments in Canadian Environmental Policy", In Debora L. VanNijnatten and Robert Boardman, eds., *Canadian Environmental Policy and Politics: Prospects for Leadership and Innovation*, (Oxford University Press, Don Mills, ON: 2009), 47.
[88] Michael Howlett and Sima Joshi-Koop, "Canadian Environmental Politics and Policy", In John C. Courtney and David E. Smith, *The Oxford Handbook of Canadian Politics*, (Toronto: Oxford University Press, 2010), 469-487. Also see: R. B. Gibson, *Voluntary Initiatives: The New Politics of Corporate Greening,* (Peterborough: Broadview Press, 1999), 473. Frank Casey, Andrew Schmitz, Scott Swinton, and David Zilberman, eds., *Flexible Incentives for the Adoption of Environmental Technologies in Agriculture,* (Norwell, Massachusetts: Kluwar Academic Publishing, 1999).
[89] The five integrated pillars of the APF were Business Risk Management, Food Safety and Quality, Science and Innovation, the Environment, and Renewal.
[90] Canada, Agriculture and Agri-Food Canada, "Environment Pillar: Securing Our Natural Resources for Today and the Future", 2008 [Online]
[91] Ibid.
[92] It was anticipated that over 75% of the farm operations in Canada would have been implemented EFPs by the end of 2008. In Manitoba, as of September 2008, 6530 producers had completed an EFP workshop and 5611 had received their *Statement of Completion.* Canada, Agriculture and Agri-Food Canada, "Environment Pillar: Securing Our Natural Resources for Today and the Future", 2008 [Online]

# Chapter Two

## Problem Recognition, Emerging Concepts, and ALUS

Problem recognition is the first step in policy change. It begins with identifying that a problem exists and accepting that change is necessary. As Neil Bradford explains, this acceptance gives way to new ideas.[1] John Kingdon's first stream in his agenda-setting model also focuses on problem recognition as a critical step. At any given time policy actors inside and outside government are aware of social conditions that they believe government should address. The problem stream describes how conditions become defined as problems and how these problems are brought to the government's attention. Those policy actors who would like to see policy change or a new policy adopted must work carefully to define conditions as problems. Kingdon states, "Conditions become defined as problems when we come to believe that we should do something about them. Problems are not simply the conditions or external events themselves; there is also a perceptual, interpretative element."[2] Furthermore, Kingdon argues that it is policy entrepreneurs that help determine the attention given to a problem.[3]

Policy entrepreneurs will frame and present concerns, ideas, and demands to policymakers for consideration. Moreover, they work to build acceptance within the policy environment for suggestions they put forth. Kingdon's second stream, the policy stream, is the process of accumulating knowledge from policy communities (e.g. specialists in the area) and the presentation of policy proposals to address a problem. As Kingdon argues, a problem will rise more quickly on the government's agenda if there is consensus that the problem should be addressed and there is an available alternative or "solution" attached.[4] However, Kingdon adds that the content of ideas or "merit" of a policy proposal is also a determining factor in moving

the issue up the decision-making agenda.[5] The third section of this chapter uses Kingdon's approach to analyze the beginnings of the ALUS proposal and the presentation to government.

This chapter's aim is to analyze why and how stakeholders began to push for the adoption of the ALUS program and ultimately whether or not the grassroots initiative was a factor in enabling a window of opportunity for policy change to occur. To accomplish this task, the sections that follow analyzes key trends in primary agriculture that acted as a catalyst for sustainability concerns, explain what concepts and emerging ideas within the policy environment (i.e. multifunctionality and EGS) helped to inspire and frame policy demands, and detail how the ALUS proposal was created and presented to government policymakers.

## 2.1 Industry Trends and Concerns

Canadian primary agriculture has been shaped by government policies, market demands, technological advancements, and producer adaptation. As the first chapter discussed, the structural evolution of the industry illustrates the constant push to increase levels of production and economic growth. However, there has been growing concern regarding whether or not this type of growth is sustainable.

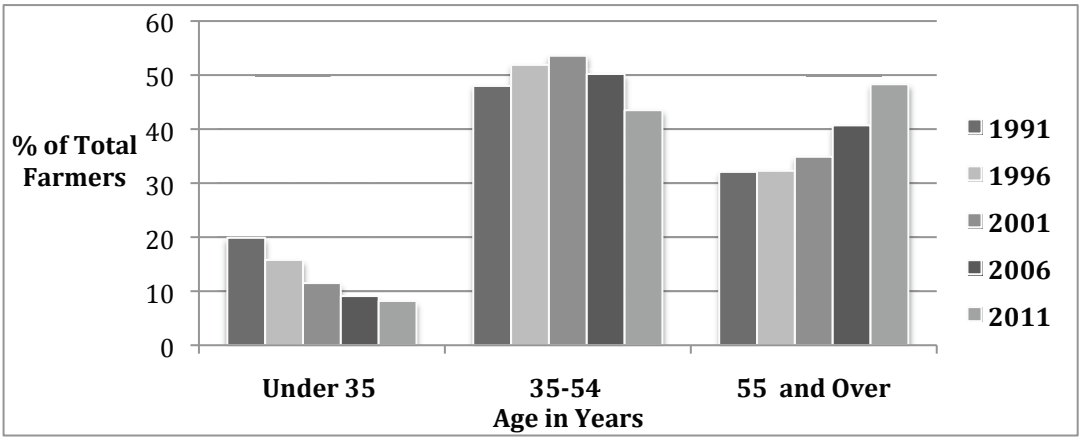
Three noteworthy trends have accompanied the structural evolution of primary agriculture in Canada: consolidation, intensification, and conversion of natural capital. In addition to demographic changes within the farm population, these trends are largely the result of technology, market signals, financial pressures, responses to environmental challenges and opportunities, and related government policies and programs. These factors are all interconnected and cannot be appreciated for their impact in isolation from the others. The following discussion examines these three key trends within primary agriculture and connects them to the broader discourse on agricultural sustainability. The focus is mainly on the province

of Manitoba but when relevant to the integrating themes of the dissertation, broader Canadian statistics are referenced.

The first trend within primary agriculture is ***consolidation*** of agricultural land and operations. Canadian farms have become progressively larger and fewer since World War II. The application of new technologies has enabled a smaller population base to manage larger and more intensive farm operations.[6]

Canadian farm demographics show an increasingly aging farm population. Figure 2.1 illustrates that between 1991 and 2006, there has been a steady decrease in the proportion of younger farmers (under age 35).[7] The 55-and-over group had the opposite movement, revealing the influence of the baby-boom generation as they age and transition from the 35-to-54 category. As a proportion of the total number of operators, the 55 and over group's share increased from 34.9% in 2001 to 48.3 % in 2011 (Appendix D). [8] Furthermore, from 1991-2011, the average age of a Canadian farmer went from 47.5 to 54 years of age.[9] It is reasonable to expect this trend will continue, as it seems younger generations are either not attracted to the occupation or are simply unable to acquire land or buy into a farming operation due to the capital required.

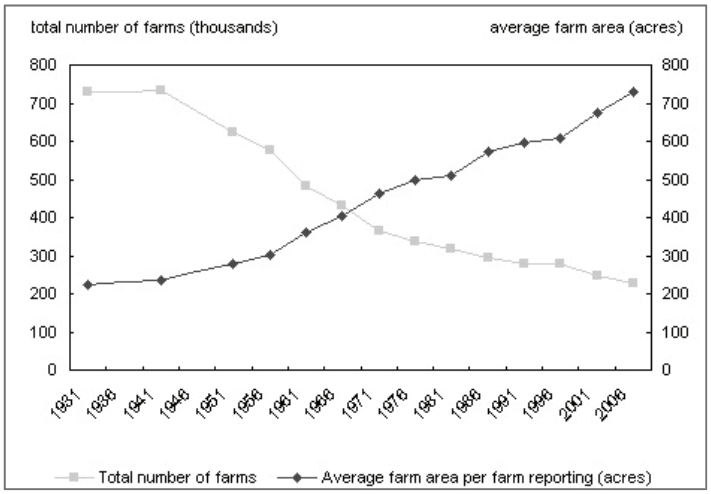
**Figure 2.1: Age of Farm Operators by group, 1991-2011**




Source: Adapted from Statistics Canada, Census data 1991-2011.

Appendix E illustrates the general pattern of consolidation as average farm size has grown while the number of farms in Canada has steadily declined. For example, between 1976 and 2006, there was a reduction of 47.6% of Canadian farms. In the decade 1996-2006 alone, there was a decrease of 47175 farms (20.5%), the majority of which were amalgamated into larger operations. During the period 1996-2006, Canadian farms grew an average of 19% in total acres, from 608 to 728.[10] By 2011, the average farm size had grown in Canada to 778 acres.[11] Figure 2.2 illustrates the steady reduction in farm numbers and the steady increase in farm size over the period 1941-2006.[12]

**Figure 2.2: Number and Size of Farms in Canada, 1941-2006**




In recent years, the rate of consolidation has been even more dramatic in the Prairies Provinces (Manitoba, Saskatchewan, and Alberta) where 81% of Canada's total farmland is located (Appendix C). Between the census years 1976 and 2006, the number of Manitoba farms decreased by 69%, Saskatchewan by 60%, and Alberta by 24%. In the decade 1996-2006 alone, this trend of consolidation accelerated as the number of Manitoba's farms decreased by 28%, Saskatchewan by 35%, and Alberta by 19%. In relation, during the period 1996-2006, the average Manitoba farm grew by 27.6% (784 to 1001 acres), Saskatchewan 26% (1152 to 1450

acres), and Alberta 19.7% (881 to 1055 acres). The 2011 Census reveals that the trend of consolidation and growth of farm size has continued (Appendices C, E, F, G, H). In 2011, the average farm size in the Prairies had grown even larger (Manitoba 1135 acres, Saskatchewan 1668 acres, and Alberta 1168 acres).[13] However, in analyzing these statistics it is important to be mindful that census data takes into account all types of farm operations and that many Prairie grain/oilseed farms are substantially larger in total acreage.[14]

Average area per farm has continued to increase in all provinces while land in production has remained somewhat unchanged. In fact, overall Canadian cropland saw a slight reduction in acreage from 2001 to 2006 (1.3%) and in some provinces such as Saskatchewan and Alberta (2.8% and 1.1% respectively) this trend is also present.[15] When agricultural production has, in most cases, not greatly expanded its overall land base, increases in production indicate that farm operations have been intensified. However, it is noteworthy that in Manitoba in the period from 2001 to 2006, land in crop production increased by 14.9% (1415476 acres).[16] This increase of cropland acres is linked to the conversion of natural capital, which will be discussed later in this section.

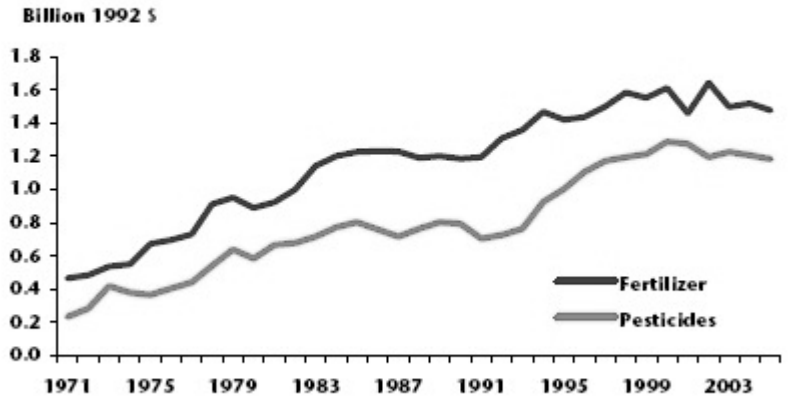
Consolidation is intertwined with the second major trend in agriculture. ***Intensification*** within primary agriculture has largely been the result of applied technology (e.g. mechanization, seed genetics, antibiotics and hormones in livestock production), financial pressures (e.g. capital intensive and smaller profit margins), and market demands. As Gareth Edward-Jones states,

> Since the 1950s, the agricultural systems of the world's advanced economies have been focused more or less exclusively on the single target of increased food production. Agricultural policies have had multiple objectives, including national food security, maintenance of farmers' incomes and rural employment, but policymakers simultaneously assumed that farmland itself would, and should, be managed to maximize food output.[17]

The tendency of farmers to strive to increase production year after year represents one the most fundamental characteristics of primary agriculture. For example, overall wheat production in Canada increased from under 200 million bushels at the turn of the last century to over 1 billion by the end.[18] Furthermore, the average output of grains, oilseeds, and specialty crops per farm has doubled since the 1970s.[19]

The increase in grain and oilseed production has largely been a result of augmented use of fertilizers and chemicals (herbicides, pesticides, fungicides, and insecticides) to boost productivity and maximize production. For example, fertilizer use in Canadian agriculture grew from just over 400,000 metric tonnes in 1961 to over 2,600,000 metric tonnes by 2002.[20] Figure 2.3 illustrates the increase of chemical inputs in primary agriculture between 1971 and 2005.

**Figure 2.3: Chemical Input Use in Canadian Agriculture, 1971-2005**

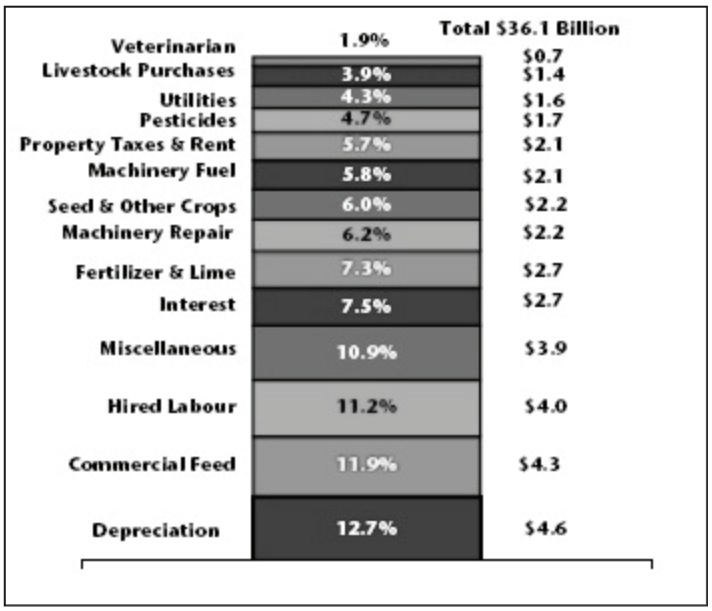



Source: Agriculture and Agri-Food Canada, 2007.

The capital-intensive nature of primary agriculture has also placed increasing financial pressure on farmers. A 2001 report by Statistics Canada concluded that regardless of farm size, farmers are spending significantly more than they were in the mid 1990s to make the same dollar.[21] As farms have been getting larger, the industry has become more capital intensive as farmers rely on getting the highest yield from their crops just to afford the increasingly expensive inputs (e.g. machinery, land, fuel) and high freight rates. Agricultural economists Andrew

Schmitz, Hartley Furtan, and Katherine Baylis argue that the high cost of agricultural production is as much a part of the farm income problem as are low commodity prices.[22] For example, for every dollar Canadian grain farmers earned in 2001, 87 cents went to pay for operating expenses and inputs were even higher for beef cattle producers at an estimated 94 cents for every dollar of revenue.[23] To give some idea of the inputs associated with Canadian farms, Figure 2.4 breaks down the major categories of farm net operating expenses and depreciation for 2006, which total $36.1 billion.

**Figure 2.4: Farm Net Operating Expenses and Depreciation, 2006**




Source: Agriculture and Agri-Food Canada, 2007

Price increases for agricultural commodities have not kept pace with increases in input costs. For example, between 1999 and 2005, the cost of farm fuel (purple gasoline/purple diesel) escalated 84.1% and 99% respectively.[24] By comparison, the prices for wheat and canola, over the same period, witnessed only marginal increases of 2% and 20% respectively.[25] When many agricultural sectors are reliant on markets, which can greatly fluctuate, farming operations can experience years of high commodity prices followed by difficult periods as a result of trade disputes, weather disasters, or flooded markets. In the recent decade, Canadian farmers have

been subject to both extremes. For example, between the years 2003 and 2005, the average farm in Canada had an annual realized net income of $3,734–one of the worst ever recorded in Canadian history.[26] This low net income was largely due to two consecutive years of drought (2001 and 2002), and the discovery of a cow infected with Bovine Spongiform Encelopathy (BSE), which subsequently caused a trade disruption when international borders closed to Canadian beef.[27] While net income has made gains in recent years, so have levels of outstanding farm debt in Canada. Since 1993, there has been a steady increase in farm debt, which reached a record high of $66.4 billion in 2010.[28] Figure 2.5 illustrates that the cost of production has risen substantially and Canadian farmers have taken on increasing amounts of debt in order to stay in business.

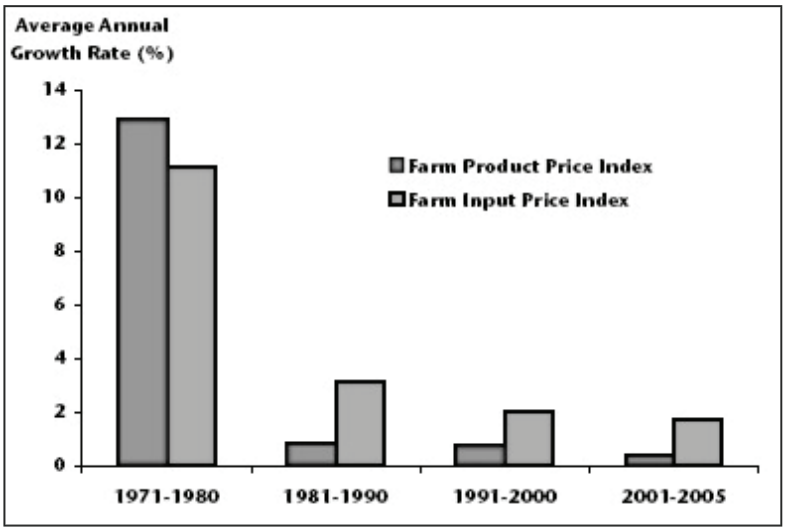
**Figure 2.5: Total Gross Farm Income, Net Farm Income, and Debt, 1970 - 2009[29]**


Source: National Farmers Union, April 2011

In an unpredictable resource economy, the pressure to increase production is escalated when commodity prices are good and trade levels are stable. In 2008, the market demand for grain and oilseeds produced relatively high prices after consistent years of minimal return. As a result, Canadian grain farmers were expected to produce more to make up for debt incurred in prior years. However, it is important to be mindful that price increases for agricultural commodities are still small in proportion to the continually increasing costs of farm inputs (e.g.

transportation costs, pesticides, fertilizer, fuel, machinery). Figure 2.6 illustrates the high input costs relative to commodity prices in the period 1971-2005.

**Figure 2.6: Farm Input Price and Farm Product Prices, 1971-2005**




Source: Agriculture and Agri-Food Canada, 2007

Intensified livestock production has also been a noticeable trend especially in the Prairie Provinces. The increase in livestock production has not only been a result of market demands but also government policies that encouraged and enabled expansion. For example, at the federal level, the cessation of the Crow Benefit subsidy on grain transportation in 1996 contributed to the rise of intensified livestock operations (ILOs) on the Prairies that could utilize the initially low-cost grain. At the provincial level, Manitoba saw a huge increase in intensive hog production in the 1990s. Between 1990 and 2000, the number of hog farms declined by more than 50% while the average number of hogs per farm more than tripled, from 388 to 1290 head.[30] By 1999, Manitoba had an estimated 4.8 million hogs and exported approximately 89% annually.[31] In 2007, Manitoba hog production reached a record high of 9.85 million.[32] However, largely due to volatile market conditions from 2006-2009, Manitoba's total hog herd was significantly reduced and production in 2013 totalled 7.6 million hogs with an average of 4,982 hogs average per farm.[33]

According to a 2007 George Morris Centre (GMC) report, a number of factors, in addition to the end of the Crow Rate and Crow Benefit subsidies, converged to generate and sustain the rapid growth of the Manitoba hog industry.[34] The first was the provincial government's decision to end the single-desk marketing system in 1995 and adopt an open marketing system.[35] Secondly, the Manitoba government played a role through its "overt support" by providing "the vision, the direction, and the reassurance that doubling the hog industry was the right thing to do."[36] Based on these first two contributing factors, GMC explains that there was an acceptance for expanding the livestock industry "due to the lack of alternatives or, conversely, the positive spin-offs of hog production."[37]

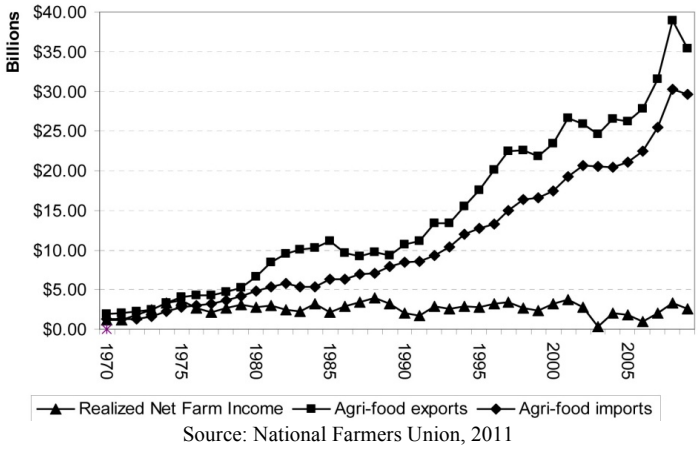
In the late 1990s and early 2000s, a lower Canadian dollar also was a factor that supported the growth of livestock production. This translated to higher prices for hogs, particularly for those producers with weaner barns, as they did not rely as much as the finishing barns on fluctuating grain prices for their operations.[38] The GMC report adds that Canada signed three major international trade agreements that increased market access for Canadian products: Canada-United States Free Trade Agreement (1989), the North American Free Trade Agreement (1993), and a World Trade Organization agreement in 1994. These trade agreements created a greater demand for export and Manitoba producers attempted to meet the demand by intensifying hog production.

Canada's agriculture economy is heavily reliant on international markets. For example, in 2005 the Grain Growers of Canada estimated that approximately 90% of Canadian farmers depend upon the world market for the determination of their price and marketing opportunities.[39] Moreover, the importance of international markets is not restricted to any single commodity or region of the country. For example, in 2005, exports included 60% of Canadian canola, over

75% of the wheat and durum, 68% to 98% of special crops (e.g. dry peas and canary seed), over 50% of Canada's pork production, and over 60% of Canadian cattle and beef production.[40] With such a continued dependence on export markets, fluctuations throughout the decades have contributed to economic crises, programs directed at income stabilization, and specialized commodity production to respond to market signals. Furthermore, markets also relate to the costs of inputs that farmers have increasingly used to produce higher yields and quality commodities. The prices that farmers incur to produce grain crops and livestock have a dramatic effect on what commodities are produced and the profit margin of agricultural producers.

Farming has become more intensified to not only produce larger amounts of product to respond to market demands but also as a necessity to ensure income stability. When farmers are subject to higher input costs and lower profit margins, the inclination is to intensify and consolidate. Figure 2.7 shows that while the value of agri-food export and import products has seen a significant incline, the realized net farm income of Canadian farmers has shown little movement and has actually dropped in recent years. In 2003, Canadian agriculture was at one of the lowest points in decades largely due to low commodity prices, consistent years of bad weather, and trade disputes over such issues as the discovery of BSE in Canada.[41]

**Figure 2.7: Total Net Farm Income[42] and Agri-Food Exports[43]/Imports[44], 1970-2009**




Source: National Farmers Union, 2011

As farming has increasingly become capital intensive and those inputs have seen substantial price increases compared to commodity prices, multiple job-holdings by farm household have become more common across rural Canada.[45] In many sectors of the agricultural industry, tight margins and low incomes have meant that many farms have needed additional income to make their operations viable.[46] From 1991 to 2006, the number of operators reporting off-farm work rose approximately 9%, from 145,005 to 158,255.[47] Furthermore, a correlation has been found between the size and income of the farm and whether, and to what extent, operators are employed off-farm. Statistics Canada states, "Smaller census farms are less likely to provide sufficient and stable income for the household and are more likely to be associated with rural lifestyle choices in which farming becomes a secondary economic activity for the household."[48] Moreover, the larger the farm and income, the less likely the farmer is to have off-farm employment.[49]

The Canadian agricultural industry continually faces domestic and international pressures to meet market demands and changing standards of production. The volatility of trade markets, the record levels of farm debt accumulated in the early 2000s, and rising costs of inputs, have all contributed to consolidation and intensified production. The relationship between costs and returns is critically important for sustainability as a whole. When farmers have to produce more to ensure their operations remain profitable, the pressure to intensify and expand can result in degradation of the natural environment.

Particularly in the grain and oilseed sectors, the ***conversion of natural capital*** to cropland is a third noticeable trend in Canadian agriculture. Bush clearing and wetland drainage have been key ways that Prairie farmers have increased their total cultivated land base. It has been estimated that 23% of land area in the Prairie Pothole region of North America was covered by

wetlands (Appendix I).[50] In 2009, Environment Canada projected that since settlement, 70% of wetlands in the Pothole region have been converted to cropland.[51] A 2001 study of Manitoba's wetlands claims that there has even been a higher rate of loss. *The Canadian Water Resources Journal* published an article that estimated wetland area in the Red River Basin was reduced by 90% in the 20th century.[52] In addition, research conducted in 2008 concluded that 1.5 million acres of land in Manitoba, which was classified as ecologically sensitive, had been put into agricultural production through crops and forages.[53] Given the high historic rate of land clearing and wetland drainage, a reasonable conclusion is that private benefits of drainage/conversion have outweighed the perceived costs/benefits of retention.

As mentioned in an earlier section, government policies and programs have greatly influenced Canadian agriculture's development. Scholars have argued that national government policies and programs in the post-World War II era, reflected and reinforced the belief that larger and more mechanized farm operations were more efficient, productive, and competitive.[54] Agricultural economist G. Cornelis van Kooten argues, Canadian governments in the 1970s and 1980s encouraged wetland drainage and cropland expansion on marginal land through a number of public policies including farm improvement grants, the Canadian Wheat Board quota system, and income stability programs.[55] In addition, van Kooten contends that government fuel rebates and tax incentives promoted the incorporation of larger machinery into production practices, which increased the conversion of natural capital to cropland.[56] As farm equipment has increased in size and efficiency, many farm operators have cleared land to simply remove obstacles. Brett G. Cortus et al. put forth a similar argument that links government risk management programs and ecological impacts. Cortus provides evidence that economic incentives for farmers have contributed to wetland drainage.[57]

The purpose for which land is used reflects its relative profitability. Land prices in recent years have increased. As Cam Henry, a farmer from Blanshard, Manitoba states,

> Since the region was settled the driving principle has been to knock down the bush and drain the sloughs. The reason being that farmers are taxed on those lands that don't produce anything. Also, as land becomes more valuable you look at intensifying the land you own. Thin profit margins have forced farmers to do what is necessary to be viable.[58]

Jia Yu and Ken Belcher argue that since most wetland and riparian areas found within the Prairies are located on privately owned land, effective policy must be informed and be responsive to the socio-economic characteristics of landowners.[59] For example, the financial pressures on farm operations and the capacity (i.e. financial ability, knowledge base) to implement changes is a major factor in determining how producers manage the environment and how they respond to policies and programs that encourage changes in practice. Therefore, a consideration for policymakers is to better understand what may be the most effective policy tools for enabling better management and enhanced economic, social, and environmental sustainability.

In response to the trends outlined above, stakeholders in the agricultural industry began to raise concerns in the late 1990s regarding whether a continuance of these trends was sustainable. These trends served as a catalyst for stakeholders to recognize that a problem existed and that policy change was necessary. The third section of this chapter expands on how stakeholders began to push for policy action. However, it is first necessary to discuss the emerging concepts and programming at the international level that would serve as inspiration for policy suggestions. Therefore, the discussion now turns to what these concepts were and how they represented a new approach towards understanding the roles of agriculture.

## 2.2 Canadian Agriculture: Concepts of Multifunctionality and EGS

As stakeholders began the push for policy change in the late 1990s and early 2000s, international dialogue on sustainable development was taking place. As part of this discussion, new concepts of the roles of agriculture, and the goods and services that a sustainable industry provides, were being promoted and embodied in new programming in several countries. These new concepts and programs inspired Manitoba stakeholders in their development of the ALUS program that sought a different approach to fostering agricultural sustainability goals.

The first time that the concept of agricultural multifunctionality arose in international policy debates was at the Rio Summit in 1992. The term multifunctionality, taken from the *Agenda 21* document, has since become a "leading principle and new paradigm for the future development of agriculture and rural areas.[60] Multifunctionality promotes a deeper understanding of the multiple and functional roles that agriculture serves beyond the traditional understanding of what agricultural landscapes and farmers provide (e.g. food, fibre, fuel).[61]

Since 1992, many OECD countries have supported multifunctionality as part of their policy approach towards sustainable development and rural development goals.[62] For example, while the majority of European countries, Australia, and Japan, have all adopted this new approach towards agriculture, North America has been regarded as "lagging behind".[63] It has been argued that a main reason for the delay in adoption has been that policymakers continue a traditional approach, which is that agricultural production and environmental preservation are seen as rival goals.[64] Conversely, the European model for developing agri-environmental policy has been strongly influenced by the characterization of agriculture as a multifunctional industry, which supports the notion that sustainable development goals, viewed holistically, can have complementary and interdependent benefits.[65]

International adoption of multifunctionality has, in part, been attributed to major policy trends in the last couple decades of the 20th century. According to Bruno Losch, the first of these trends is the critique of the productivist model.[66] The efficiency in production the model created has also brought about negative impacts including overproduction, a reduction in farm population and rural communities, and environmental degradation.

Another trend identified is the growing interest and concern for the efficient use of natural resources. Global concern regarding the management of resources and the industries dependent on them has been reflected in international gatherings such as the Rio Summit (1992), the Kyoto Summit (1999), Rio+20 Summit (2012), as well as ongoing attention to issues related to climate change.

A third major trend has been related to issues of food safety and security. For example, incidents of BSE (Europe and North America) and food contaminated with E. coli bacteria have raised consumer concerns about food quality and safety. In turn, governments have responded with increased regulations and trade standards on imported and exported goods. In addition, the expectation of a growing global population and rising demands for food, raise issues of food security, as production and supply must increase to meet demand. In Fall 2009, the United Nations released a report estimating that by 2050 the world's population will be approximately 9.1 billion and that global food production will need to increase by 70% over today's levels in order to meet the anticipated demand.[67] With the expectation that farmers must constantly produce more raw product, the issue remains how to best facilitate production while considering economic viability, social stability, and the condition of the natural environment as being integral to long-term agricultural sustainability.

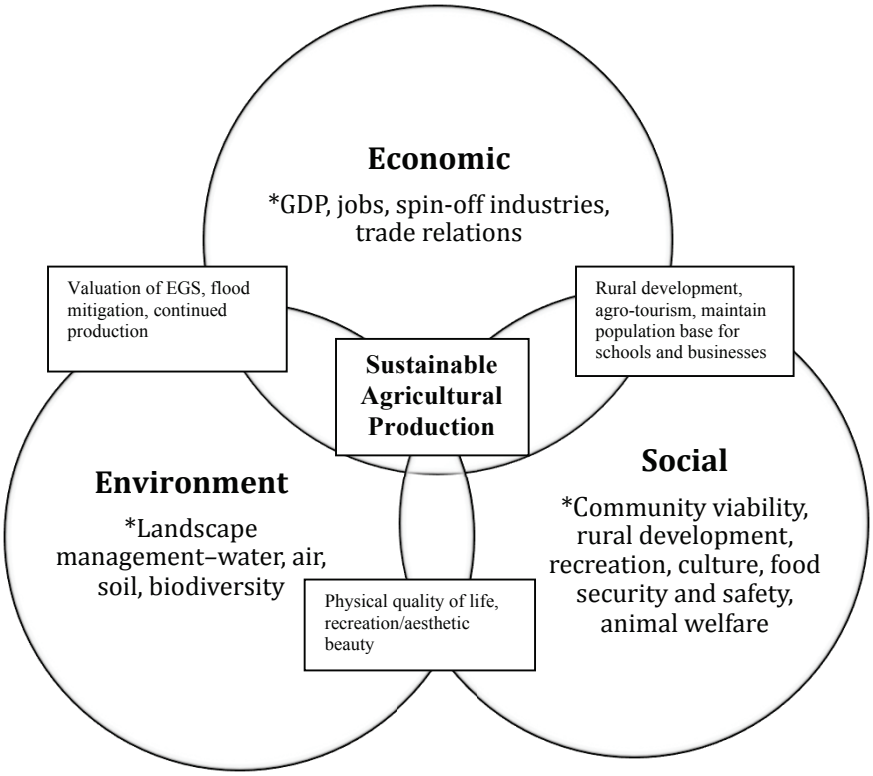
Agriculture performs multiple and interdependent functions. How multifunctionality is defined has slightly varied but two main characteristics remain constant. First, agriculture serves a greater function beyond its primary role of producing food, fibre, fuel, and feed for market. John Warren states,

> A multifunctional agriculture is one that produces not only food and fibre commodities, but also a range of non-market goods and services. These non-market goods and services include the impacts that agriculture has on environmental quality including rural landscape amenities, biodiversity and water quality as well as socioeconomic viability of the countryside, food safety, animal welfare and cultural and historical heritage.[68]

Second, agriculture has the potential to produce goods and services that have simultaneous private and public benefits.[69] The OECD states, "multifunctionality refers to the fact that an economic activity may have multiple outputs and, by virtue of this, may contribute to several societal objectives at once."[70] For example, farm operations that implement beneficial management practices can produce economic benefits for the producer, while protecting water, soil, or air quality, which results in wider public benefits.

The acknowledgement that agriculture contributes to the landscape, the environment, communities, and the economy is significant in how we understand the roles inherently tied to primary production. The functions that agriculture performs not only have local effects but also are tied to broader provincial, national, and international impacts. The economic, social, and environmental roles of Canadian agriculture are multifaceted and there are obvious overlaps and linkages that exist among them and the benefits they produce. Figure 2.8 illustrates the multifunctionality concept citing some examples of the functions of Canadian primary agriculture.

**Figure 2.8: Multifunctionality Concept and Functions**




***Economic Function***

Agriculture's economic function is the most traditionally identified. The primary role of agriculture has been to produce marketable commodities for food, feed for livestock production, fuel, and fibre.[71] In relation, there are a number of economic benefits produced including the contribution to local, provincial, and national economies, and employment (direct and indirect through spin-off business) created. Agriculture has been, and continues to be, one of the most vital industries to rural communities, provincial economies (especially the Prairies), and Canada as a whole. In 2009, primary agriculture accounted for 1.7% of the national Gross Domestic Product (GDP) and directly employed 1.8% of the Canadian population.[72]

Primary agricultural production is at the heart of the agriculture and agri-food system. As such, any market changes, weather disasters, or crisis events leading to trade barriers (e.g. BSE),

result in widespread impacts on the performance of the industry and subsequently the entire production and supply chain.[73] For example, with international borders closed to Canadian beef during the period May 2003 to August 2005, in response to the discovery of single BSE inflected cow, the loss to the Canadian economy was estimated at over $4 billion.[74] Indeed, Canadian agriculture continues to play a significant role in the economy, particularly when the whole supply chain is considered. Agriculture Canada describes the supply chain as a "complex, integrated production and distribution system", which "includes input and service suppliers, primary agriculture producers, food, beverage and tobacco (FBT) processors, food retailers and wholesalers, and foodservice providers."[75]

There are a number of clear economic indicators of the industry's contribution to employment, spin-off business, and general export revenue. In 2009, agriculture directly provided one in eight jobs in Canada (over 2 million) and accounted for 8.2% of the total national GDP.[76] Furthermore, Canada was the fourth-largest exporter and sixth-largest importer of agriculture and agri-food products in the world, with exports and imports valued at $35.2 billion and $27.9 billion respectively.[77]

Agriculture's contribution to provincial economies varies across the nation as the relative size and nature of production differs between provinces and regions. For example, Eastern Canada has a larger dependence on food processing, whereas primary agricultural production is more concentrated in the Prairie region.[78] With regard to Manitoba, the wealth that comes from rural communities and agriculture stabilizes the provincial economy through business, investment, and exports (estimated at $4.3 billion in 2011).[79] When taking into account related activities (e.g. processing), the Manitoba government estimates that the agricultural industry accounted for approximately 12% of the province's GDP in 2008.[80] Agriculture is also a major

generator of jobs in both rural and urban Canada through employment on farms, in the production of agricultural inputs, in the processing of farm products, and in the service sector. In Manitoba, agriculture and the agri-food system provides one in ten jobs, which translates to over 62,000 people directly and indirectly employed by the sector.[81]

As a generator of wealth and employment through commodity production, the agricultural industry has largely focused its efforts on the economic pillar of sustainability. The economic stability of the primary industry is the foundation for the entire industry and any major disruption causes a ripple effect from local communities to global markets. Economic stability for farmers is critical to ensuring primary production remains viable in the short and long-term. In turn, stable farm production supports social stability and is innately connected to environmental management. BMPs not only mutually benefit the economic stability of farm families and their communities but also ensure ecological sustainability, which allows for continued production.

***Social Function***

Rural development and viability in Manitoba is largely connected to agriculture. The Canadian agricultural industry helped shape our nation's development and continues to be a vital part of our rural heritage and culture. Along with other Prairie resource-based industries (e.g. mining, oil), farm operations are key contributors to rural communities through employment, businesses, schools, recreation, and culture. Bryce Stewart states, "Although agriculture as a share of prairie GDP has declined considerably over time, in 2011, roughly 7% of the prairie population was still classified as farm population, indicative of the important socioeconomic role that agriculture continues to play in the prairies."[82]

The economic challenges that farmers have faced with declining profit margins and volatile export markets have contributed to a decreasing farm population. As younger generations are finding limited opportunities to enter farming, a knowledge base of skills to manage land and animals is being lost. The agrarian culture of rural communities remains an important social function that farmers perform. Skills are passed from one generation to the next and many farm families in Canada can trace their roots back to family members who immigrated to Canada and began to farm. The history of agriculture is part of the cultural fabric of Canada and continues to be part of many rural communities' identity.

In a broader sense, agriculture also serves a social function by ensuring food security and safety (a quantitatively sufficient and qualitatively safe food supply). Food production is truly a global effort as trade between countries demonstrates that the products we are able to buy locally can be a compilation of ingredients and manufacturing from various parts of the world. Trade disruptions or natural/non-natural disasters in one part of the world can therefore have consequences far beyond one nation's borders. The quality of life that citizens enjoy in any country is largely dependent on basic necessities such as food safety and supply. However, human health and wellness is also tied to how farm operations manage the environment. For example, water quality and supply can be impacted either negatively (e.g. pollution) or positively (e.g. maintenance of wetlands and riparian areas). Land occupancy and farm management also serve the functions of community aesthetics, recreation (e.g. agro-tourism), and ensuring standards of animal health and welfare. Interconnected to economic and social functions, is the environmental role of agriculture.

***Environmental Function***

Ecological goods and services (EGS) are the environmental benefits resulting from physical, chemical and biological functions of healthy ecosystems.[83] EGS include market goods produced from ecosystems (e.g. food, fibre, fuel, fresh water), the benefits from ecosystem processes (e.g. nutrient cycling, flood mitigation, climate regulation, water purification, waste treatment, pollination), and non-material benefits (e.g. esthetic values, recreation). In turn, poor land management impairs the production of EGS. Figure 2.9 provides a breakdown of four main categories of EGS as outlined by the Millennium Ecosystem Assessment (2005).[84]

**Figure 2.9: Ecological Goods and Services**

| **Regulating Services**<br><br>Benefits that people obtain from the regulation of ecosystem processes | **Provisioning Services**<br><br>Products that people obtain from ecosystems | **Cultural Services**<br><br>Non-material benefits that people obtain from ecosystems | **Supporting Services**<br><br>Services that are necessary for the production of all other ecosystem services |
|---|---|---|---|
| • climate and water regulation<br>• erosion control<br>• water purification<br>• treatment of organic wastes<br>• protection against natural disasters<br>• pollination<br>• biological control<br>• air quality maintenance<br>• regulation of human diseases | • food and fibre<br>• fuel<br>• genetic resources<br>• biochemicals, natural medicines, and pharmaceuticals<br>• ornamental resources (e.g. flowers, animals products, shells)<br>• water | • cultural diversity<br>• esthetic and cultural heritage values<br>• spiritual, religious, and educational values<br>• ecotourism<br>• social relations;<br>• inspiration<br>• knowledge systems (traditional and formal) | • production of biomass and oxygen<br>• soil formation<br>• creation of habitat for plant and animal species<br>• nutrient cycling<br>• water cycling |

Source: Adapted from Millennium Ecosystem Assessment 2005.

The EGS concept has contributed to the sustainable agriculture discourse and subsequently new program design towards agriculture. The EGS term is by no means new, as countries throughout the world have embraced the concept and implemented programming that recognizes, facilitates, and rewards the multiple roles of agriculture. Recognition for the societal benefits sustainable agriculture serves, reached the international sphere in 1992 at the Earth Summit in Rio de Janeiro, Brazil. Some have argued that this declaration served to "reinforce a policy direction upon which many OECD countries had already embarked regarding their agricultural EGS programming."[85]

Dimple Roy et al. cite examples in the United States beginning in the mid-1980s including the Conservation Reserve Program (CRP), which was established in the 1985 Farm Bill and has undergone changes in subsequent Farm Bills (1990 and 1996).[86] The United States Department of Agriculture states,

> The CRP is a land conservation program administered by the Farm Services Agency (FSA).[87]In exchange for a yearly rental payment, farmers enrolled in the program agree to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality. Contracts for land enrolled in CRP are 10-15 years in length. The long-term goal of the program is to re-establish valuable land cover to help improve water quality, prevent soil erosion, and reduce loss of wildlife habitat.[88]

Under the CRP program, American farmers receive payments for withdrawing and preserving land from production.[89] S. Hajkowicz provides another example in Australia, when pressure from the Australian Conservation Foundation and the National Farmers Federation on agri-environmental issues culminated in the launch of the National Landcare Program in 1989.[90] The national program served to increase awareness among farmers and conservationists about on-farm management processes. The program was seen as the building block for the rapid growth and success of EGS programming in Australia. In addition, the United Kingdom's Countryside Stewardship Scheme, launched in 1991, set a goal for land managers to conserve, enhance, or re-create important landscape types. Over 531,000 hectares were enrolled in the program and projects were funded to improve landscape and wildlife habitat, conserve historical value, and provide public access.[91]

Roy's review of international programs, argues that EGS programming has gained significant impetus and momentum in the last couple of decades.[92] Roy's work largely focuses on the agricultural sector and the use of incentive programs to conserve and produce EGS, which she explains has emerged as a popular policy instrument in OECD countries.[93] As Roy writes,

> Many countries have undergone a fundamental shift in the last few decades, from regulatory approaches for the management and conservation of environmental resources, to the use of a wide range of economic and market-based instruments such as taxes and charges based on the "polluter pays" principle. These instruments have evolved further into incentive payments, often from government agencies, for ecosystem stewardship for the restoration and management of EGS.[94]

Canadian environmental economist Nancy Olewiler argues that "because farmers typically receive no payment for the ecosystem benefits generated by their lands and farming techniques, they have little incentive or ability to protect nature."[95] The challenge for agriculture is that producers benefit only from selling commodities such as food and fibre, while EGS, such as wildlife habitat and purification of water and air, creates larger public benefits. Because these are positive environmental externalities, producers generally do not receive compensation for the enhancement of these EGS. The IISD argues that this "creates a policy gap to be addressed by governments."[96] Addressing this gap involves an understanding of public demands for EGS and how this differs from the level farmers are willing to provide under existing programs, regulations, and markets.

Similar to the sustainable development topic, international discussion of the multifunctional role of agriculture and the EGS well-managed land can potentially provide, have helped frame policy demands within Canada. As will be discussed in the following section, stakeholders took inspiration from programming implemented in other countries and along with the mounting concerns in the late 1990s, initiated a push for policy action. Enabling farmers to produce EGS through incentive programming has addressed the economic focus of the industry by attempting to give a value to natural capital, enable better land management, and acknowledge the broader role of agriculture.

## 2.3: The Inception of ALUS and the Pilot Project Proposal

John Kingdon's three streams agenda-setting theory argues that problem recognition is a necessary step in the agenda-setting process.[97] As problems become defined and brought to the government's attention, policy entrepreneurs play an important role in furthering an issue on the agenda. The following discussion briefly outlines key elements of Kingdon's theoretical model and analyzes the extent to which the ALUS case study supports his arguments. Furthermore, the discussion highlights key features of the Blanshard ALUS pilot project proposal that was presented to government in 2004.

John Kingdon explains that problem recognition can arise from systematic indicators, focusing events (e.g. crisis), and feedback. For example, actors inside and outside government will monitor existing programs or statistics in an area of policy. Kingdon explains that these policy actors interpret and define problems.[98] In addition, crises serve to draw more attention to a problem and can further promote the issue on the government's agenda.

Kingdon describes policy entrepreneurs as advocates of an issue that are vital to promoting a problem on government's agenda.[99] While decision-makers often shift their attention from one problem to another, policy entrepreneurs remain focused on their issue. Policy entrepreneurs have expertise, invest large amounts of resources (e.g. time, money), are able to speak on behalf of others, may have an authoritative decision-making position, political connections, negotiating skills, and demonstrate sheer persistence in promoting their issue and having their solution accepted.[100]

Kingdon argues that an issue is more likely to progress on the agenda if a solution is available, which is often prepared and presented by policy entrepreneurs. In addition to consideration for political costs/benefits, the content or merit of the ideas presented by policy

entrepreneurs is important and can sway or "soften up" the policy community.[101] The process of softening up can be described as policy entrepreneurs presenting their position, educating, and attempting to build support from both government and the public.[102] Kingdon states, "Getting people to see new problems, or to see old problems in one way rather than another, is a political accomplishment."[103] Government will consider proposals based on technical feasibility, whether the solution fits with dominant values, budgetary capacity, and political support/opposition.[104]

In examining the ALUS case study, there are three key elements to look for with respect to how a problem was identified, the inception of the programming concept, and the presentation of the Blanshard pilot project proposal; first, government and non-government actors recognize that a problem exists based on indicators in the policy area; second, policy entrepreneurs are critical to drawing attention to the problem, softening up the policy community, and presenting an alternative for government consideration; third, the policy alternative available to government has merit and is feasible. These three factors combine to establish the problem on the government's agenda, push it forward, and subsequently enable policy change.

***Indicators***

In the late 1990s, the escalation of consolidation, intensification, and conversion of natural capital began to raise concerns amongst many farmers, government officials, and the public regarding whether these primary agricultural industry trends were sustainable. In addition, the early 2000s were a time in which Canadian farmers were faced with enormous financial pressures due to increasing debt loads, volatile export markets, trade bans, and consecutive years of bad weather. During this time period, primary agriculture was often regarded to be in crisis with both political actors and industry stakeholders taking notice. For example, in 2005, Wayne Easter, Parliamentary Secretary to the Minister of Agriculture and Agri-Food Canada stated,

> The agriculture and agri-food sector is generating wealth and jobs for the economy and it is generally prospering, but Canada's farmers are beset by a deep and continuing economic crisis. The income crisis for family farms is not short term or cyclical. It is long term and systemic–-and it is global. Farmers are under pressure in Canada, the U.S., and Brazil, even in the European Community. Everywhere, fewer farmers are producing more for less in the way of net market income.[105]

In addition, the Little Saskatchewan River Conservation District explains,

> 2004 will be remembered as one of the most difficult years for Manitoba farmers. It did not give them any reason to look at traditional farming incomes as something that could be relied on. There was a continued international stranglehold over BSE, the coldest and wettest year on record, creating difficulties to hay and annual crop production, and low commodity prices. These trends only continue to reinforce that there is a need to look at other avenues for sustaining agricultural communities.[106]

The following chapter provides more detail on the environmental concerns in Manitoba during the early 2000s (i.e. flooding, Lake Winnipeg pollution, and the impact of intensive livestock production). This discussion provides additional support to the argument that indicators, both economic and environmental, were drawing government attention and many policy actors were recognizing policy change was needed in agriculture.

***Policy Entrepreneurs***

Concerned with both economic and environmental trends in primary agriculture, Ian Wishart, a Manitoba farmer, took inspiration from international programming and developed a proposal for a new program in the late 1990s. Wishart had been interested in the environmental role of agriculture for many years. He was part of a group of like-minded farmers who formed the Delta Ag Conservation Co-op (DACC) and set out to find ways to improve their own land stewardship. This group found that when they applied these better management practices they also achieved better agronomic results.[107] The DACC partnered with Ducks Unlimited to encourage farmers to create small wetlands on their fields and surrounding areas could be utilized for pasture and livestock grazing. Wishart described this venture as a "win for all" and as

"multifunctional".[108] The DACC pooled equipment to plant trees for buffer strips between fields and helped other farmers with landscaping and water conservation techniques. Wishart stated, "there's plenty farmers can do to benefit themselves and society—but often money gets in the way of good intentions."[109]

Ian Wishart developed the Alternate Land Use Services (ALUS) programming concept because he felt there was a need to better address agricultural sustainability through an alternative policy approach.[110] Largely taking inspiration from the United States Conservation Reserve Program, which was detailed in the above section, Wishart outlined his idea for a Canadian program and presented it to Manitoba's Keystone Agricultural Producers in 1999. Wishart proposed that farmers should be recognized and rewarded for the goods and services they provide and alternative policy tools should be implemented to better enable sustainability objectives. KAP quickly supported the ALUS policy idea, as they believed that it could serve as an effective agricultural policy tool to address both the financial pressures facing farmers and promote better land stewardship.[111]

In 2000, KAP released a policy paper titled *Alternate Land Use Services: Broadening the Base of Agricultural Income*, which described Canadian agriculture to be at a "crossroads" in its evolution.[112] KAP detailed economic pressures facing farmers and argued that public attention towards environmental concerns was also shaping the agricultural policy agenda of government. The paper acknowledged the interconnection between economic and environmental pressures and stated, "Policy responses to date have failed to deal with fundamental causes of the [environmental] degradation."[113] KAP argued that a new policy tool was needed to better address economic pressures facing farmers and rural communities, as well as promote enhanced

environmental stewardship. The ALUS program aimed to encourage enhanced conservation (e.g. wetland retention) and broader environmental objectives (e.g. pollution reduction).[114]

Farmers quickly expressed their interest in the ALUS program as it offered an alternative to the traditional top-down regulatory approach they found to be restrictive and burdensome.[115] Wishart has stated that farmers were looking for "a program that gave them some level of engagement—where it wasn't just a case of some official driving into their yard and saying, you shall do this and you shall not do that."[116] In addition to gaining the broad support of Manitoba farmers, KAP was able to effectively partner with conservation groups and a local government to promote their policy idea.

Four key actors were pivotal in helping to push the ALUS concept forward: Ian Wishart and the Keystone Agricultural Producers (KAP), the Delta Waterfowl (DW) Foundation, the Little Saskatchewan River Conservation District (LSRCD), and the Rural Municipality (RM) of Blanshard, Manitoba. The unique partnership formed among these policy entrepreneurs was instrumental in advancing the concerns of agricultural sustainability on the provincial government's agenda and presenting a viable policy alternative. Rosann Wowchuk, who served as Minister of Agriculture at the time ALUS was adopted, explained in a personal interview that "the support from industry was not enough" and that the backing of conservation groups like DW and a local RM willing to test the project contributed to government's decision to "really consider" and eventually adopt the Blanshard pilot.[117]

Delta Waterfowl showed interest in the proposed program and offered to partner with KAP in presenting it to government and the public. The program was consistent with the DW's mandate to promote the conservation of waterfowl and their habitat as a basis for future waterfowl hunting.[118] As such, DW supported the ALUS programming concept as it sought to

protect and restore natural capital and encourage a high level of compliance by working with the support of landowners.

The Little Saskatchewan River Conservation District also pledged support for ALUS from a very early stage. The mission of the LSRCD is to "encourage and support sustainable management of conservation practices that enhances quality of life and build sustainable communities through integrated land and water management."[119] In 2004, Chairman of LSRCD Roy Greer stated,

> Due to the current agricultural situation, (low commodity prices and the BSE Crisis to name a couple) farmers are continuing to face economic challenges. Essentially, farmers need higher profit margins from their existing land base in order to be financially sustainable. This often results in the conversion of non-cropland (wetlands, bush, and marginal land) into cropland. As a result of this process, soil stability, water quantity and quality, and wildlife habitat are compromised.[120]

The LSRCD contributed to the development of the pilot project proposal and the presentation to the Manitoba government.

The RM of Blanshard, located in southwest Manitoba, and its farming population became aware of the program proposal and expressed interest in participating in the pilot project. The RM and its surrounding communities economically depend on the agricultural sector and expressed concern with the area's changing environmental landscape and the potential short and long-term effects. In the Blanshard ALUS pilot project proposal, Richard Heapy, Reeve of the RM of Blanshard, stated,

> The Rural Municipality of Blanshard had been concerned about the future of the environment and preservation of wildlife and agriculture and realized if there were not changes made soon to make this sustainable, the results could be devastating for future generations.[121]

In May 2001, Wishart, speaking both as a private citizen and member of the KAP Rural Development Committee, presented a position paper to Manitoba's Standing Committee on

Agriculture.[122] This was the first time the ALUS programming concept was presented to the provincial government for consideration. In Wishart's opening statement he explained,

> I think most of us are in agreement that there is a lot of short-term need in the farm community for a cash inflow. There is a lot of short-term pain out there right now that has to be addressed, and some of it is generated by commodity markets. Some of it is generated by specific disasters in specific areas and should be addressed, but there is also a great need for a long-term plan in agriculture.[123]

While undoubtedly still in a stage of development, the main principles of the ALUS program were outlined for the Committee. ALUS was presented as an incentive-based program that would recognize the important role of agricultural lands and would encourage farmers to either set aside, or take out of production, land that was considered to be marginal or environmentally sensitive. Wishart explained that ALUS would produce a wide range of benefits including carbon sequestration, wildlife management, enhanced water storage for farm purposes (e.g. irrigation), and flood mitigation, among others. ALUS would be flexible, voluntary, and trade neutral. Moreover, Wishart explained that the program could be administrated through existing government agencies such as the Manitoba Crop Insurance Corporation and proposed that funding could come from a variety of sources: conservation groups, the federal government, and provincial governments.[124] In addition, ALUS was presented as having potential to be a key part of a national conservation plan.

The Committee expressed interest in the programming concept and members of the Progressive Conservative Party (the Official Opposition) were particularly supportive. With regard to land preservation for endangered species, Larry Maguire, Member of the Legislative Assembly for Arthur-Virden, stated, "having worked on this one as a farm leader, to think that we could use a carrot rather than a stick in regard to getting farmers to be more on-side with us. It goes a long way further to compliance of accepting these programs … ."[125]

Over the next couple of years, KAP and DW representatives traveled throughout the province and Canada presenting the idea of ALUS, gauging support, answering questions, and receiving valuable feedback. The ALUS programming concept received broad support from across Canada. Over fifty organizations endorsed ALUS. This diverse group was composed of industry, conservationists, local and provincial governments, and private foundations (Appendix J). As mentioned in this dissertation's first chapter, agricultural groups often have different interests, which they promote on behalf of their members. Journalist Kevin Hursh explains,

> A multitude of groups claim to represent farms. Truth is, there are many topics on which the groups can't agree. That's because farmers are a diverse bunch of folks. However, it's hard to imagine much opposition to the ALUS concept from within agriculture or even from outside the farming industry.[126]

The lack of opposition to the ALUS programming concept was an important element in encouraging government to adopt the policy tool. In particular, the fact that numerous agricultural organizations and conservation groups found common ground and mutually supported a policy tool undoubtedly gave credibility to the policy proposal for the Blanshard pilot project.

The Blanshard ALUS case study supports John Kingdon's argument that policy entrepreneurs are a critical factor in moving an issue forward on a government's agenda. KAP, DW, LSRCD, and the RM of Blanshard formed a unique partnership based on common objectives that addressed both the economic pressures on farmers and the need to improve land stewardship. These groups were active in lobbying government at the provincial and federal level, educating the public, and building a consensus within the policy community that supported change and an incentive-based policy approach. These groups drew attention to the economic and environmental concerns within primary agriculture. They repeatedly emphasized that the financial pressures facing farmers should be a key consideration in adopting a new policy tool

and that it would help enable better environmental stewardship as opposed to increased regulation. As ALUS was designed to provide private and public benefits (economic, social, and environmental), broad support within the policy community was garnered.

***Availability and Merit of Policy Proposal***

In August 2004, KAP, DW, LSRCD, and the RM of Blanshard submitted a joint proposal to the provincial and federal governments for consideration. The policy paper retained all of the primary features of the 2001 submission but provided greater detail on how a three-year ALUS pilot project could be successfully implemented in the RM of Blanshard. The paper explained the reasoning for the program, goals, administration, and potential funding requirements.

Given that ALUS was a new policy approach within Canada, stakeholders argued that the implementation of a pilot project in Blanshard would provide necessary information including how farmers would respond to an EGS program, how it would operate, the goals it would meet/failed to meet, and changes it would require before broader implementation.

The ALUS proposal was presented to government "as a means to bridge the environmental demands of Canadians and the policy requirements to foster a socially and economically viable agricultural industry and sustainable rural communities."[127] As the previous section discussed, EGS farmers provide through good land stewardship has far reaching societal benefits. ALUS was described to be an "incentive-based, private land, conservation program concept" that intended to deliver on environmental benefits, while also being "farmer friendly".[128] The aim of the ALUS program was to enable the production of EGS from privately owned land by using incentives to encourage landowner participation. The introduction of the ALUS proposal states,

> Since the inception of organized agriculture, the landscape has traditionally been used to grow and raise crops and livestock, but agricultural land produces more than food and fibre. On their land, farmers also provide clean water, wildlife, carbon sequestration, aquifer recharge and scenic amenities. There are currently no market mechanisms that reward producers for these goods and services, though these conservation efforts often come at a cost to the farmer. Alternate Land Use Services (ALUS) fills this policy gap, while complementing other provincial and federal public policies and programs.[129]

The ALUS program, which was a marketplace concept, would provide a new market signal that would reward farmers for managing the landscape and enhance the production of EGS (e.g. water cycling, nutrient storage, flood mitigation, carbon sequestration, biodiversity, recreation). In 2004, Wishart stated that adoption of ALUS would, "ramp up conservation efforts because right now they are in decline ... Farmers want to do the right thing but in many cases, that is not happening because the priority is economic survival. This could help both the environment and income."[130] ALUS, which placed a value on natural capital and environmental stewardship, addressed the economic nature of the agricultural industry. In the 2004 proposal LSRCD states,

> The LSRCD board is fully supportive of ALUS and the concept of rewarding producers for the provision of ecological goods and services that they provide to society. ... The LSRCD feels that producers need to be rewarded for providing ecological goods and services to society. There is a need to take action soon, before these ecological goods and services are removed from the landscape. An ALUS program would not only benefit farmers, but all of society as a whole.[131]

Thus, the ALUS program was presented to government as having potential to create wider public benefits for rural and urban citizens.

The ALUS proposal explained EGS and how economic pressures were related to agricultural production practices and environmental degradation. The proposal suggested that a small incentive ($5-$25 per acre depending on the modified land use) would enable BMPs to be

implemented by supplementing a potential loss of income and that the program would encourage farmers to consider the environmental impact of their land practices.[132]

The ALUS proposal outlined a pilot project to be implemented in the RM of Blanshard. The RM of Blanshard covers an area of 350 square kilometers, has approximately 113 farms (according to 2001 Statistics Canada data), and has land that feeds into two watersheds (Broughton's Creek watershed and the Oak River watershed).[133] Both watersheds are part of the larger Assiniboine River watershed, which feeds into Lake Winnipeg. Lake Winnipeg pollution had garnered major public attention especially since the late 1990s. As will be discussed in the following chapter, this attention contributed to the Manitoba government's commitment to addressing provincial water quality issues. Blanshard was proposed as an "excellent predictor" of how ALUS would work if implemented more broadly, as the RM was described to be "typical landscape of agro-Manitoba and much of the Canadian Prairies."[134] Given the size of the RM and number of farms, the project was also promoted as being a manageable for the pilot project's administration and budget.

Under ALUS, producers would apply through the Manitoba Crop Insurance Corporation (MCIC), where a project coordinator would assist in determining eligible acres and drawing up a contract. MCIC had agreed to administer the ALUS pilot project if the provincial government decided to implement the program. The proposal explained that MCIC was the best choice for administrating the ALUS project because it had the best information system (90% of Manitoba farmers were already enrolled in Crop Insurance), credibility in administering a confidential program, trust within the farming community, and its board was tripartite in nature.[135] Contracts with producers would be multi-year agreements to ensure maximum ecological benefits. Payments and program tracking would be administered by MCIC and would be based on data

recorded during a series of farm visits and evaluations. A technical advisory committee would also be established with support from the Manitoba Conservation Districts Association, the Prairie Farm Rehabilitation Administration, Manitoba Habitat Heritage Corporation, Manitoba's Departments of Conservation and Water Stewardship, and the Farm Stewardship Association of Manitoba. In addition, a project advisory committee would provide local input from farmers and interest groups. The position of a local ALUS project coordinator would be created to consult with producers and maintain communication between funding agencies, the technical advisory committee, the project directors, and the project advisory committee. Furthermore, it was proposed that Delta Waterfowl would coordinate the evaluation and monitoring process of participating landowners to ensure the effectiveness of program delivery, the socio-economic impacts, and landowners' compliance with their agreements.[136]

The proposed ALUS project would be delivered over a three-year period with evaluation extending into a fourth year. The maximum cost for the three-year pilot project was determined to be $1,903,377.[137] This cost was calculated based on eligible land acres in Blanshard, administration and personnel, communication, and cost of evaluation (e.g. hiring consulting firms). The proposal explains that ALUS aligns "closely with many of the provincial government's environmental and rural objectives" including the *Water Protection Act*, the Lake Winnipeg Stewardship Initiative, Manitoba Climate Trust, flood mitigation, carbon credit issues, and the *Species at Risk Act*. As such, the province was asked to make a financial commitment of $250,000 per year for three years.[138] Furthermore, as ALUS was a natural complement to existing federal programming under the Agricultural Policy Framework (e.g. EFP program), the federal government would also be approached for funding support.

This overview of Blanshard's ALUS pilot project, demonstrates that KAP, DW, LSCRD, and the RM of Blanshard had put forward a well-developed policy alternative for government consideration. Kingdon's argument that policy entrepreneurs can help push their issue further on the agenda if there is an available solution is supported by this case study. Furthermore, the proposal emphasized the program's technical feasibility and potential for creating public benefits. In addition, the broad approval within the policy community, and the fact that some funding commitments were already in place from conservation groups, indicates that an extensive group of policy actors believed the project had merit.

## 2.4 Summary

As stated at the beginning of this chapter—problem recognition is the first step in policy change. It begins with identifying that a problem exists and accepting that change is necessary. Towards the late 1990s and early 2000s, trends of consolidation, intensification, and conversion of natural capital were escalating in Canadian agriculture. At the same time, the farming population was older than ever before, farmers were taking on larger amounts of farm debt, and financial difficulties caused by smaller profit margins, market fluctuations, and weather disasters were creating concerns regarding short and long-term economic and social stability within the industry.

Mounting concerns for Canadian agriculture's sustainability came at a time of growing international dialogue, emerging policy concepts, and new programming that embodied the concepts of a multifunctional agricultural industry and the ecological goods and services that farmers provide. Recognition for policy change among stakeholders and governments in the late 1990s, allowed new policy ideas to be developed and innovative policy tools to be presented to government. While the presence of ideas inspired a new dialogue on the multiple roles of

Canadian producers, it was policy stakeholders that proved to be pivotal in recognizing change was necessary and pushing for policy action.

This chapter has sought to better understand why and how a push from stakeholders began. Kingdon's agenda-setting theory, which underlines the important roles played by systematic indicators and policy entrepreneurs in pushing an issue forward on the government's agenda, is demonstrated by the ALUS case study. Furthermore, Kingdon's argument that an available policy solution that has merit helps to further enable a window of opportunity for policy change is also supported by the above analysis.

## Notes

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[42] Realized net farm income - what farmers take home after paying the cost of production.
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# Chapter Three

## Institutions and Manitoba's Policy Environment

The previous two chapters have argued that international influences, broader policy trends, recognition that change in agricultural policy was needed, and the push for a new programming concept by stakeholders, all served to advance agri-environmental issues on the political agenda in Canada. However, as Neil Bradford states,

> New ideas are a necessary condition for launching innovation, but they are not sufficient in consolidating change. The policy influence that ideas achieve does not flow directing from their innate qualities. Rather, to progress new ideas must 'work on' interests to clarify goals and motivate strategic action, and they must 'work through' institutions to transform problem-solving techniques and operational procedures.[1]

This chapter's aim is to examine the role of institutions and Manitoba's policy environment in enabling a window of opportunity for the ALUS program to be adopted.

As policy actors work within an institutional framework, the possibility of policy change can be greatly affected by Canada's governing system.[2] This chapter's first section provides an overview of key challenges and opportunities posed by Canada's federal system and intergovernmental relations. The second section discusses the role of interest groups and how the nature of the party system influences the policymaking environment. The third section focuses exclusively on Manitoba's policy environment. This discussion examines three environmental topics in Manitoba that largely dominated the public and government's attention in the late 1990s and early 2000s: the devastating 1997 provincial flood, the pollution in Lake Winnipeg, and public concerns over the expanding hog sector. John Kingdon's third stream of his agenda-setting theory, the political stream, explains that an issue can move up on the government's agenda due to a shift in national mood/public attention, pressure group campaigns, and/or

changes of government.[3] Using Kingdon's argument as a starting point for discussion, Manitoba's policy environment is analyzed to better understand why the provincial government was receptive to implementing the Blanshard ALUS project.

## 3.1 Federalism, Intergovernmental Relations, and the Bureaucracy

Institutions are a large determinant in how policy is created, administered, and revised.[4] Atkinson writes, "State organization has implications for the concentration and diffusion of power, for the manner in which societal actors organize and participate in policymaking, and for the process whereby some ideas are nurtured and others discarded or ignored."[5]

The executive and the legislative branches of government and the federal nature of Canada's political system greatly contribute to the overall development of policy. Kenneth McRoberts argues that these institutions "matter" as they not only structure the process but also "influence policy indirectly both by shaping our understanding of politics and by redirecting the influence that social forces bring to bear on Canadian politics."[6] Colin Hay argues that actors "influence the development of [a structured] context over time through the consequences of their actions. Yet, at any given time, the ability of actors to realise their intentions is set by the context itself."[7] However, policy actors, political and non-political, are by no means passive participants as they shape the very nature of policy through their interactions.

Institutions undoubtedly shape the methods or tactics that interests utilize. However, policy action is greatly determined by the ability of policy actors to effectively articulate their concerns and ideas, collaborate and communicate with government leaders, navigate the political environment, and ultimately garner strong political and stakeholder support. Furthermore, how state and society relate to each other is highly dependent on both the issue at hand and the policy environment/context in which it exists.

Policymaking in Canada has been influenced to a large extent by federalism. Federal-provincial relations establish access points for groups, shape problems, and can both constrain and create policy opportunities.[8] Therefore, institutions within the policymaking environment are important to consider in understanding how policy change is enabled or hindered.

Policy lines often intersect as both the federal and provincial levels of government work together to establish and achieve policy goals, especially in areas of shared jurisdiction or that deal with policy issues that transcend territorial boundaries. The constitutional jurisdiction over agriculture is outlined as a joint responsibility of the federal and provincial governments in Section 95 of *Canada's Constitution Act, 1867*.[9] Furthermore, jurisdiction over environmental protection in Canada is considered to be a shared responsibility between the provinces and the federal government, although the written constitution is silent on the issue.

The provinces have taken primary responsibility for environmental protection acting on their jurisdiction over natural resources, municipal institutions, and matters of a "local and private nature".[10] In recent years, provincial governments have acted on issues of land and water management, while the federal government has assumed responsibility for interprovincial and international relations. The federal government has also sought to establish an influential role in land stewardship by partnering with the provinces on agri-environmental policy initiatives under the Agricultural Policy Framework (2003), Growing Forward (2008) and Growing Forward 2 (2013).[11]

Federalism and intergovernmental relations are capable of producing both opportunities and challenges to policymaking.[12] Grace Skogstad argues that effective environmental policymaking in Canada has been hampered by the federal system through "delays, incoherence, and conflict."[13] However, Skogstad acknowledges that the federal system has not been the only

institutional factor that has served as an obstacle. Skogstad explains that "weak or ineffective intergovernmental mechanisms to coordinate environmental and developmental issues and interests" have also presented a serious test to policymaking.[14]

While the federal system allows for jointly funded programming and shared research, there is often a great deal of time spent consulting, developing funding formulas, and formulating policy that all counterparts agree on. Michael Howlett argues that the existence of a federal system affects the capacity of governments to deal with pressing issues in a "timely and consistent manner" because when different levels of government must negotiate to reach some agreement, policymaking can be a "long, drawn-out, and often rancorous affair."[15]

The creation of sustainable development policy in the area of agriculture and the environment is by no means an easy or uncomplicated task. As environmental impacts transcend provincial and national borders, there are often numerous pressures and considerations. Moreover, due to shared responsibility in many related policy areas, multiple governments and departments within governments can become involved. The reality is that governing is complex and harmonization and coordination of policy can be complicated.

Effective policy creation requires horizontal and vertical coordination between governments, as well as within a government. Horizontal coordination refers to the overlap that often exists across areas of public policy. Many of the prominent issues that relate to agricultural sustainability require the inclusion of several government departments. For example, there are several federal departments and agencies whose mandate touches on elements of agri-environmental objectives including Environment Canada (clean air), Natural Resources Canada (alternative energy), the Pest Management Regulatory Agency (pesticide risk reduction), the Canadian Food Inspection Agency (biosecurity, plant and animal health), and Fisheries and

Oceans Canada (fish habitat). Similar complexity exists at the provincial level with numerous departments, laws, and regulations related to agriculture and environmental issues. With regard to the Manitoba ALUS pilot, the Department of Agriculture, Food and Rural Initiatives (MAFRI) assumed the primary role, but the Water Stewardship and Conservation departments were also involved in policy discussions.[16]

Coordination and communication is important within a government department. For example, Appendix K illustrates the current organizational chart for Manitoba Agriculture, Food, and Rural Development (MARFD). The multiple branches within the department illustrate the range of issues that exist at any given time for government consideration.

With regard to vertical coordination, policies in the areas of agriculture and the environment require a substantial amount of agreement and flexibility between jurisdictions to achieve positive results. This is because any initiative that transcends borders such as climate change or water pollution necessitates collaboration between municipalities, provinces, the federal government, and even with foreign governments. One example of this is the concern over Lake Winnipeg's water quality, which has experienced damaging levels of eutrophication in the last two decades due to increasing levels of nitrogen and phosphorous in fertilizer. Eutrophication, also known as nutrient enrichment, is a result of large amounts of nutrients being released into a water body, which leads to excessive amounts of aquatic plant growth and algae blooms. Eutrophication greatly impacts biodiversity and water quality. The concerns over Lake Winnipeg's pollution are discussed in greater detail in an upcoming section. However, what is important to draw attention to at this point is Lake Winnipeg's watershed, which extends over four Canadian provinces and four U.S. states. Moreover, it is estimated that the majority of nitrogen (64%) and phosphorous (59%) are contributed by jurisdictions outside of Manitoba

(Appendix L).[17] Therefore, to effectively deal with the province's environmental problems, the Manitoba government must effectively work with local governments, other provincial governments, and their counterparts in the United States. As such, the challenge remains that environmental policy and implementing initiatives are increasingly dependent on the involvement of multiple jurisdictions that are required to establish common goals, provide resources, collaborate, and coordinate.

Paul G. Thomas and Robert Adie explain that the relations between the federal and provincial governments vary across time and policy field and undoubtedly reflect a number of contributing factors. These include "the historical nature of the relationship, the wealth and size of the province, the distributive nature of the provincial society, the political parties in office in the two capitals, and the relative bureaucratic capacity and competence of the provincial government."[18] In addition, leadership of the political parties and the style of governing is also an important element to understanding the policy environment, which enabled Blanshard's ALUS project.

In the early 2000s, Manitoba was under the leadership of Gary Doer's New Democratic Party (NDP). First elected in 1999, the Doer government's approach to intergovernmental relations has been described as "pragmatic, problem-specific, cautious and driven by the political dynamics of the issue under consideration."[19] In a discussion of Doer's approach, Paul G. Thomas explains,

> Solutions are to be found on the basis of what is feasible in terms of the nature of the issue, the policy knowledge available, the administrative capacities of governments, the budgetary requirements, and most importantly, the prospects for agreement among government and the other actors involved. In short "good policy" is not defined simply in abstract manner, but also in terms of the level of conflict a proposed action will arouse and whether a consensus can be found. Networking, negotiations, the mobilization of support, and the creative accommodation of

> difference are central to this approach. Avoidance of strong, fixed initial position and of personalizing disputes are also a feature of the approach.[20]

As a smaller "have less" province, Manitoba's dependence on federal financial support to complement provincial policy efforts has largely necessitated a collaborative rather than confrontational relationship.[21] In addition, Thomas writes, economic and social concerns within Manitoba have often "matched up closely with those on the national policy agenda", which has been conducive to developing intergovernmental policies that address provincial issues.[22]

Federal and provincial policy objectives during the early 2000s demonstrate that both levels of government were supporting a new approach towards addressing agri-environmental issues. For example, the APF partnership (2003) and the EFP Program were facilitated by common objectives between the two governments. Furthermore, as the previous chapter discussed, there was a broad consensus among stakeholder groups in supporting the ALUS programming concept. Discussion was taking place at federal-provincial meetings and adopting a new incentive-based policy tool for improving land stewardship was gaining momentum in the policy community. The Doer government's approach, which in part has been characterized by building consensus and agreement among policy actors, helped to create a receptive policy environment to the adoption of ALUS.

Despite the challenges the federal system can pose to policymaking, it must not be solely regarded as an obstacle to policy development. In fact, the provinces can be laboratories for innovation, and there are clear examples of how provinces in many policy fields have developed innovative programming as a result of the decentralized federal system and strong political leadership.[23] One benefit of the Canadian system is that it does allow for strong leadership and vision when it comes to policy development especially if the government is in a majority position. Arthur Kroeger, a career civil servant who served as a deputy minister in a number of

high ranking national portfolios, once remarked, "it is striking how much policy development processes have varied according to who the prime minister was at a particular time."[24] The executive-dominated nature of Canadian national and provincial politics therefore allows for political champions to support specific issues and push them onto the political agenda. Conversely, policy change may be made more difficult if political leaders are resistant or are unwilling to accept new ideas.

In Canada's parliamentary system, the Prime Minister/Premier and Cabinet set the policy direction of government. In addition to its authority facing few checks within the political system, the Cabinet also has access to many resources that strengthen its position in policy matters including unparalleled access to the media, control over how and when information is released, fiscal resources, and the legislative agenda.[25] In addition, the executive not only has the powerful resource of the bureaucracy, which provides advice, but also carries out the government's set priorities and is largely responsible for policy design, implementation, and evaluation.

The interface between political and administrative decision-making is the subject of a huge volume of literature, which contains a number of competing perspectives as to whether political leaders or civil servants ultimately have the greatest influence on policymaking. Paul Pross argues that it is the considerable autonomy that is granted to the bureaucracy to carry out these roles that make the senior ranks of the public service the preferred target for interest groups.[26] Agricultural economist Hartley Furtan argues that the bureaucracy's role in agricultural policymaking is so prevalent that "in the U.S., politicians make policy, while in Canada, policy changes come from bureaucrats."[27] Furtan's statement seems to contradict the position that academics like Donald Savoie have taken about the immense power of the Cabinet in setting

political direction. Savoie states, "The role of senior public servants is to take political direction, and where it doesn't exist, to tread water until direction is given."[28] However, Furtan's position does not challenge the central role that the Cabinet has in policy direction, rather he focuses on how policy change is often central to the influence the bureaucracy has as it carries out its departmental duties.

The 2004 proposal put forth by KAP, DW, LSRCD, and the RM of Blanshard outlined a pilot project that intended to provide broad societal benefits, gain valuable knowledge of an alternative policy approach, address both economic and environmental concerns, and take advantage of the existing government institutions to implement the initiative. While there was a general interest by politicians from the Manitoba government and opposition parties, the proposal did meet some resistance particularly from the federal bureaucracy. As Ian Wishart stated with regard to ALUS and implementing a new approach to sustainable agriculture, "Bureaucracy has been more of a challenge to work with than politicians."[29] In collecting data for this dissertation, a common response among informants was that they believed the federal bureaucracy was resistant to ALUS as a grassroots idea because it went against their usual top-down policymaking approach and because it was simply unfamiliar.[30] Wishart explained that Manitoba's civil servants were much more willing to keep an open mind during early discussions of the proposed pilot project and showed a great deal of support for the programming concept once they understood the feasibility of the ALUS project and the potential benefits.[31]

Barry Wilson argues in *Farming the System* that at both the federal and provincial level, bureaucrats have resisted change, which Wilson cites as a main reason why new policy ideas "rarely are presented from the bottom up."[32] Of course, in the case of ALUS, the change did rise from the grassroots level. In interviews conducted for this project a common explanation for the

bureaucratic resistance was that it was perhaps a "leap" for some policymakers to pay farmers for EGS and the programming concept was new.[33] Journalist Brian Cross explains,

> From a government perspective, I think some saw it as fairly pricey to pay producers for providing ecological services that a lot of producers would largely provide anyway. But that's the whole idea behind the program, is to recognize the fact that farmers are providing an ecological service that they previously weren't being compensated for. Hopefully, that will help to passively deter them from ripping up wetlands and other sensitive areas a few years down the road.[34]

In addition, while similar programming had already been successfully implemented in other OECD countries, the incentive-based ALUS project differed from the top-down regulations often imposed on Canadian agriculture.

Stakeholders were frustrated by the delays in implementing the pilot project, which they argued was being caused by "stalling" and "someone pushing back at the federal bureaucratic level."[35] Rosann Wowchuk, Manitoba's former Minister of Agriculture, explained the federal government wanted more policy work conducted to explore the idea; meanwhile, stakeholder groups were frustrated that the process "just was not moving fast enough."[36] However, federal support, from political and bureaucratic actors, was obtained and was largely due to the Manitoba government's strong support for the Blanshard pilot and their willingness to push the concept among their counterparts, growing consensus and support for the ALUS programming concept throughout Canada, and the existence of agri-environmental programming under the APF that embodied similar objectives.[37] Furthermore, stakeholder groups played a fundamental role in the agenda-setting process by championing ALUS, presenting a feasible project proposal, and demonstrating persistence, which kept the issue on the federal and provincial agenda from 2001 until late 2005 when the Blanshard pilot project was officially announced.

## 3.2 Interest Groups and the Party System

Interest groups perform a number of valuable functions within the Canadian policy environment. Characteristics of Canada's federal and Westminster system of government such as its general decentralized nature, the unrivaled power of the executive, and the strict culture of party discipline, have made for a political system that is "lacking in opportunities for citizen involvement in policy formation."[38] As such, organized groups serve as an essential link between government and citizens. In this role they provide representation, promote communication, and bring awareness to important issues. By fulfilling these roles, interest groups potentially provide a voice to those citizens who are otherwise underrepresented in political institutions, or what Rand Dyck terms a "supplementary kind of functional representation."[39] Furthermore, while the farm population has steadily declined, the ability of farm groups to maintain a functional and working relationship with government officials has been important to push farmers' concerns onto the political agenda.

Interest groups also provide a diverse communicative role in the political system. Not only do these groups relay the perspective of their members but also they inform their members about government policies and programs. Paul Pross states, "Interest groups perform a vital communication function, linking the public to government they are able to carry information across institutionalized barriers ... ."[40] As the Canadian political system makes it difficult for Canadian farmers to bring their concerns to the attention of policymakers, they must rely on interest groups to provide this two-way transfer of communication. For example, when effective farm lobby organizations are evaluating proposed government legislation, regulatory controls, and programs, they maintain a constant communication with government and their members, through meetings, newsletters, and briefs to committees.

Another role that agricultural interest groups serve is to bring awareness to issues affecting their industry. During periods of farm prosperity, governments little interest in creating policies aimed at sustainability goals. However, when the farm economy has collapsed, governments have rushed to find a band-aid solution. Therefore, it can be argued that Canadian governments have been more reactive than proactive in their policy development. Policy that only reacts to crises often ignores careful consideration of factors affecting long-term sustainability. Therefore, the consistent pressure that farm lobby groups apply to government is important in bringing awareness to long-term issues facing the agricultural sector and encouraging the development of effective policy to address them.

The political system affects how farm lobby groups operate, and more specifically whom they target to achieve their objectives. Access occurs at a number of points in government: the bureaucracy, the Cabinet, and members of Parliament/Legislature. Since their resources are often very limited, farm organizations selectively contact government officials and also seek to influence them indirectly by utilizing the media and informing the public. As Canada's political system has evolved under the Westminster model, the bureaucracy and the Cabinet dominate the legislative process. As a result, most interest group activity is targeted, either directly or indirectly, at the bureaucracy and Cabinet.

With the increasing complexity of Canadian government, elected officials cannot be expected to have substantial expertise in all policy areas. Interest groups, which are able to focus on one particular area, fill this void by acting as consultants and relaying their specialized knowledge. As Newman and Tanguay state, "government policy seems to vary within restricted parameters. In such an environment, organized interests…can be extremely important as sources of innovative ideas and as critics of conventional wisdom."[41] Interest groups act as an essential

vehicle for the transmission of knowledge within the Canadian political system. The Government of Canada reaffirms that lobbyists and interest groups "perform a useful and legitimate role in the complex system of contemporary government … [and are] a necessary part of modern public policy making."[42]

Many agricultural lobby groups at the federal and provincial level play an active role in the policymaking process. When new legislation, regulations, and programs are proposed, agricultural interest groups provide government with expertise, knowledge, and insight on how policy may affect their members and the industry. As Neil Bradford argues, "National parties have not been effective catalysts or carriers of policy innovation".[43] Therefore, new policy tool ideas can stem from grassroots suggestions of interest groups, as in the case of ALUS.

The nature of Canadian federalism is such that group access can become severely restricted when an issue enters the arena of intergovernmental negotiations. Richard Simeon argues that the machinery of intergovernmental negotiations "limits the participation of interest groups in the bargaining process."[44] However, access seems to be much easier at the provincial level, especially in a small province like Manitoba, in which agricultural groups like KAP have been able to establish a close working relationship with provincial political actors.[45] Paul Vogt, formerly Manitoba's Clerk of the Executive Council explains that a trend towards collaborative government has granted non-governmental organizations an active role in designing and implementing government policy.[46] Furthermore, Vogt states that a "practical consequence of the trend is that all ministers spend the better part of their working days meeting with stakeholder groups."[47]

The long-established relationship between provincial government officials and the Keystone Agricultural Producers has given the farm group what Sawatsky once termed an

effective "insider" status.[48] KAP's legacy of collaborating with both government and opposition parties and largely avoiding protest behaviour has allowed the group to maintain a respectful position with the Manitoba government, which has helped them gain access to officials, political and non-political, to present their issues and offer suggestions for policy development.[49]

It is clear that a nation's political system affects how interest groups operate and whom they target for support. Canada's model of government has limited the extent to which individuals and groups participate in the policymaking process. However, the valuable roles that interest groups have within the federal system are critically important to getting issues on the agenda, serving a two-way communication role between government and stakeholders, and sharing expertise. In turn, government policy actors have, for the most part, accepted that stakeholder groups serve a valuable function in the policymaking process and their support translates into increased legitimacy for policy action.

With regard to ALUS, the ability of KAP to partner with conservation groups (Delta Waterfowl and Little Saskatchewan River Conservation District) and the RM of Blanshard was valuable in encouraging government to consider the costs/benefits of the pilot project proposal. The partnership that formed among stakeholder groups was critically important in moving the ALUS idea from a discussion stage onto the agendas of both the federal and provincial governments. These groups travelled throughout the province and country explaining the principles of the ALUS program and garnering support and valuable feedback. This initiative gained widespread support for the ALUS programming concept and the EGS that agriculture can provide. During the interviews for this dissertation, all interviewees agreed that the fact that both industry and conservation groups supported the ALUS proposal, provided legitimacy to the policy tool suggestion.[50] As the previous chapter noted, the consensus and support for ALUS was

widespread with multiple governments, industry groups, conservation groups, and private foundations all endorsing the programming concept. The broad support amongst various stakeholders for ALUS and the availability of a fully developed proposal, helped facilitate an opportunity for policy change that was politically feasible.

In setting the political agenda, government leaders consider a range of factors including who supports a given policy endeavour (e.g. media, interest groups, public), what opposition they may face in choosing how they respond (e.g. opposition political parties, stakeholders), and the nature of the issue (e.g. international, national, emergency).[51] The distribution of costs and benefits, not just the scope of the impact, determines the types of responses including the intensity of the controversy and levels of political conflict.

The nature of the Canadian party system influences how governments address problems in addition to what policy tools are implemented. For example, regulations can be politically appealing if the public wants to see quick and definite action on the part of government.[52] As such, in a political system in which politicians want to be seen as taking action on issues of public attention, policy tools such as regulation or short-term funding projects may be preferred compared to incentive programming or long-term programming commitments.

Governments may choose reactive policy not only because it creates the perception of activity but also because setting a short-term agenda allows for results, or a lack of results, to be seen sooner rather than later. For a government hoping to reap the political rewards of an implemented policy endeavor, a short-term approach is more ideal. Of course, using this same logic, a flawed short-term program or policy could backfire on government. This helps to explain why political actors tend to favour certain policy instruments over others. For example, regulations, and the results they achieve, are more predictable compared to implementing a new

policy tool. As such, government actors may be hesitant to take the political risk of a failed program, which will be seen as a waste of public dollars and/or as evidence of a government's inability of government to effectively address an issue.

Due to the complicated nature of policymaking and the fact that the media often presents a shallow understanding of news, widespread public knowledge of an issue is often lacking. Murray Edelman provides insight into the regulatory process by examining the symbolic nature of politics. According to Edelman, much of politics consists of the manipulation of symbols to evoke public arousal or quiescence.[53] Given the number and complexity of issues raised on a daily basis, governments are often provoked to react and therefore may be hesitant to concentrate on issues for too long without extended public support. This is not to say that political leaders and appointed officials are passive receptors of cues from the public, as there still must be some initiative taken to convert a problem into a "live" issue.[54]

Policy proposals and development are often part of a larger political strategy. Politicians try to gauge the response of critics, as they are made answerable for failures of policy and programs on a routine basis. Jean Chrétien once argued,

> the art of politics is learning to walk with your back to the wall, your elbows high, and a smile on your face. It's a survival game played under the glare of light … The press wants to get you. The opposition wants to get you. Even some of the bureaucrats want to get you. They all may have an interest in making you look bad.[55]

Given the nature of Canadian party politics, it is essential for politicians to appear politically active and avoid bad publicity. This is especially true when there is an approaching election. Bruce Doern explains that policy is directly connected to two powerful forces: "the need to survive politically and the obligation of the government to govern."[56] Political survival is a powerful instinct and political parties in power are often prepared to change priorities to help

sustain the coalition of voter support that will help them to retain office. Furthermore, these self-interest motivations are most often linked to dominant issues that surface through such mediums as public opinion polls and the media.

The discussion above underlines the fact that political feasibility is a key consideration in government deciding to take action and by what means. The ALUS case study diverges from the typical political response of regulation. In addition, both parties in power at the provincial (NDP) and federal level (Liberal) during the time that the ALUS proposal was presented for government consideration, were not parties that had a significant amount of rural seats. In 2005, the federal Liberal Party did not have any elected members in Manitoba outside of Winnipeg. Furthermore, when ALUS was adopted, the provincial NDP government had a total of thirty-five elected MLAs, twelve of which held seats outside of Winnipeg. Of the twelve seats, four were Northern constituencies, two were from the City of Brandon, and six were rural ridings.[57] Christopher Adams' historical analysis of Manitoba's political parties and voter support, demonstrates that the majority of rural ridings have traditionally supported the Progressive Conservative (PC) Party with the NDP only receiving marginal rural seats.[58]

At the time ALUS was adopted, it could be argued that the two political parties in government at the federal and provincial level were not "typical allies" of farmers given the limited political seats held in rural Manitoba. As such, it reveals an interesting element of the ALUS case study: the governing parties supported the ALUS project for reasons beyond electoral gains. Despite the fact that farm groups were very supportive of ALUS, the governing parties could not have assumed that adopting an individual ALUS pilot would win them substantial voter support in the rural areas. Of course, it could be argued that these parties were receptive to an agri-environmental program in part because of the widespread public attention for

environmental issues.[59] However, the media coverage of the ALUS programming concept and the Blanshard pilot project was extremely limited in Winnipeg's newspapers.[60] As such, it is reasonable to assume that the overwhelming majority of Winnipeg residents, who represent the largest urban population base in the province, were unaware of the ALUS programming concept and the Blanshard project.

It is important to note that at the time ALUS was being considered, political actors were aware of the financial difficulties farmers were experiencing due in part to the BSE crisis, low commodity prices, and extreme weather. As such, the governing parties may not have wanted to appear as if they were placing further stress on farmers with increased regulations. This may have contributed to the federal and provincial governments being more amenable to an incentive-based programming option. Therefore, the decision to adopt a new incentive-based policy tool like ALUS was not removed from political considerations, but was arguably chosen for reasons beyond political motivations.

Discussion presented in earlier chapters of this dissertation has supported the argument that international influences, broader policy trends, problem recognition, and the push from stakeholders, were all important factors in enabling policy change. In addition, further analysis suggests that the ALUS programming concept, and the Blanshard proposal in particular, were also political feasible. ALUS aligned with policy priorities on the federal and provincial agendas (e.g. environmental stewardship, economic stability for the agricultural industry), the programming concept had broad support and little opposition, and the Blanshard proposal was developed and could be administered through existing government agencies.

News coverage of ALUS and rural issues in general is often lacking in urban media. However, in the early 2000s, issues related to flooding, Lake Winnipeg pollution, and the

expanding hog industry received widespread media and public attention. These issues specifically served as a catalyst for the provincial government to establish water stewardship issues on the political agenda. Subsequently, the focus on water stewardship and the connection between agriculture and environmental issues contributed to enabling a window of opportunity for ALUS to be seriously considered by policymakers.

### 3.3 Environmental Concerns in Manitoba and the Connection to Agriculture

Policy action or inaction is embedded in the policy environment in which it exists. The context of the policy environment affects not only whether the issue makes it on the political agenda but also how the issue is addressed and by what means.[61] Moreover, the nature of the policy environment is not a fixed state, but rather, is comprised of factors that are constantly shifting such as leadership, budgets, and major events. As such, when actors and institutions seem to support and/or enable policy change, understanding the policy environment in which an issue is presented may better explain why action is, or is not, taken at a particular time.

The first two streams (problem stream and policy stream) of Kingdon's agenda-setting model were discussed in the previous chapter. The third and final stream, the political stream, is particularly relevant to the discussion presented in this chapter. The political stream includes pressure group campaigns, changes in government, and/or shifts in the public's mood. Changes in the political stream can have a powerful effect in the agenda-setting process as governments decide whether to act and what policy tools they will enact.

As previously discussed, stakeholder groups were extremely active in building support and consensus for the ALUS programming concept and the Blanshard pilot proposal. Furthermore, the proposal was technically feasible and fit with current policy values as demonstrated by the adoption of incentive agri-environmental programming in the early 2000s.

Kingdon argues that the technical feasibility and value acceptability of a policy proposal can help with creating a politically feasible option.[62]

With respect to a change in government contributing to the political stream, Manitoba experienced a change in 1999 when the NDP formed government. The NDP government soon adopted environmental issues as one of their policy priorities. Its first Speech from the Throne stated that a "paramount concern to Manitobans is the security of our natural environment" and the provincial government pledged to take immediate steps to protect water resources.[63]

In Manitoba, key events/trends in the mid to late 1990s served to increase public and government attention on the environment—particularly with concern to water resources. The devastating 1997 flood, the escalation of pollution in Lake Winnipeg, and rapid expansion of the hog industry—in part due to the end of the province's single-desk selling system (1995) and the cancellation of the federal Crow Benefit subsidy (1996).[64] The dialogue surrounding these issues and the connection between agriculture and the environment helped to create a receptive policy environment for the ALUS proposal to be considered by policymakers.[65] The following discussion analyzes how the political stream converged with the problem and policy stream to create a window of opportunity for policy change to occur and ALUS to be adopted.

***1997 Flood***

Manitoba has historically experienced periodic and massive flooding. In 1950, the province experienced a major flood that led to the construction of the Red River Floodway (aka Duff's Ditch).[66] Since the Floodway's completion (1968) and subsequent first use in 1969, it has been operated over twenty times and has prevented over $10 billion in flood damages.[67] Despite the enormous benefits that the Floodway produces, in 1997, the province experienced what was

termed, "The Flood of the Century", causing a number of community evacuations and widespread damage to land and infrastructure.

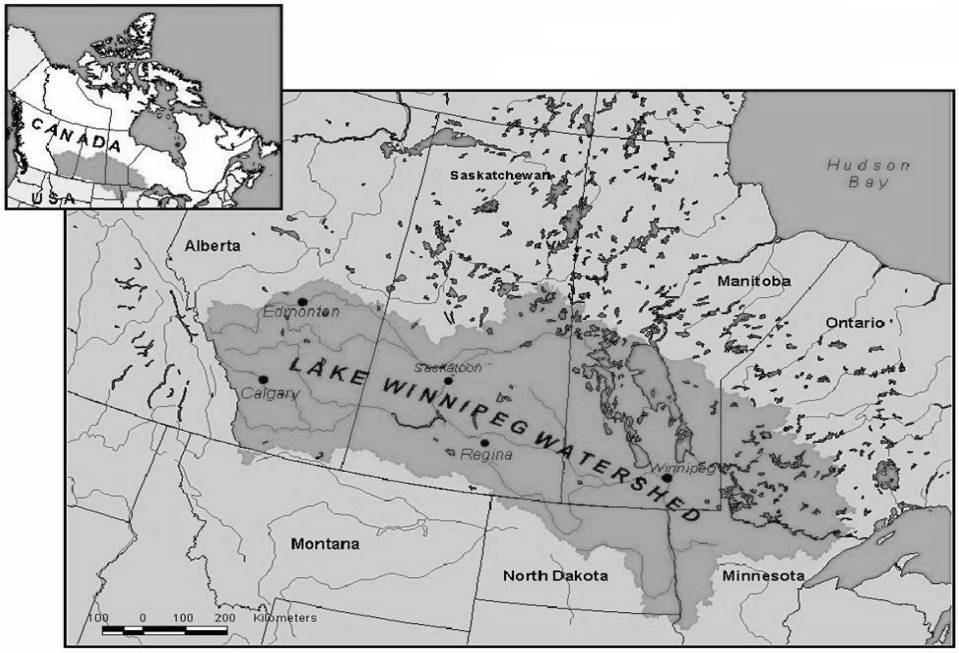
The severity of the flood raised a number of topics amongst the public and government leaders including increased funding for the expansion of the Floodway, emergency measures, funding for municipalities and individuals impacted, and flood mitigation. In addition, concerns regarding large volumes of sediment and nutrient-laden water being discharged into Lake Winnipeg during the flood sparked the creation of the Lake Winnipeg Research Consortium in 1998 and intensive research and monitoring commenced in 1999.[68] Prior to this research, monitoring of Lake Winnipeg's nutrient levels had been very limited with some assessment being conducted by the province between 1992 and 1997. This data allowed for future comparative study that helped to better understand trends in water quality.[69] However, in the late 1990s, the focus was largely on identifying sources of nutrient pollution in Lake Winnipeg. Nutrient loading into the Lake Winnipeg watershed off of agricultural lands and concerns over the environmental impact of intensive livestock operations garnered public and government attention.

***Lake Winnipeg Pollution***

Lake Winnipeg is the sixth largest lake in Canada, extending 436 km from north to south and covering an area of 23,750 square km. It is the tenth largest body of freshwater in the world and has the second largest watershed in Canada (one million square kilometers) second only in size to the Mackenzie River watershed.[70] As Figure 3.1 illustrates, the Lake Winnipeg watershed spans four Canadian provinces (Alberta, Saskatchewan, Manitoba, and Ontario) as well as portions of four of the United States (Montana, North Dakota, South Dakota, and Minnesota). The watershed encompasses over 65 million hectares of farmland (55 million in Canada, 10

million in the USA), an estimated 7 million people (80% urban), and over 24 million head of livestock (2006) within its boundaries.[71]

**Figure 3.1 Lake Winnipeg Watershed**




Source: Manitoba. Water Stewardship. "Lake Winnipeg: Quick Facts". [Online]

As Wassenaar and Rao explain,

> Troubling signs began to appear on Lake Winnipeg in the early 1990s with the increasingly widespread occurrence of blue-green (cyanobacteria) algal blooms, particularly in the north basin of the lake. … By the 2000s concerns about recurrent and spectacular algal blooms washing up on beaches had given way to public alarm.[72]

In the early 2000s, the condition of Lake Winnipeg not only gained local media coverage but also national attention as satellite images showed vast amounts of algae blooms covering major portions of the Lake.[73] The accelerated eutrophication in Lake Winnipeg in the 1990s was due to increased levels of nutrients, specifically phosphorus and nitrogen, in the watershed.

In 2000, as part of their commitment to address water quality in the province, the Manitoba government launched its Nutrient Management Strategy, followed by the creation of the Manitoba Phosphorus Expert Committee (2002), the Manitoba Water Strategy (2003),[74] and

the Lake Winnipeg Action Plan in 2003. In 2005, the Manitoba government reported that over the previous three decades, phosphorus loading into Lake Winnipeg increased by 10%, and nitrogen loading by 13%.[75] Appendix L provides a breakdown of each source's proportion of total phosphorus and total nitrogen reaching Lake Winnipeg each year, on average, between 1994 and 2001.[76] While there are many point sources for the increasing levels of nutrients in the lake, the intensification in agriculture, within and outside the province in the 1990s, coincided with the rapid escalation of pollution. The dialogue surrounding the condition of Lake Winnipeg heightened public concern about the linkage between the agricultural industry and the environment.

In Fall 2003, the Manitoba government created the Department of Water Stewardship from the Conservation portfolio. Manitoba was the first jurisdiction in Canada to have a stand-alone department with the sole responsibility for protecting and managing water. One of the first actions of the newly created department was to enact the Lake Winnipeg Action Plan. As part of this Plan the Lake Winnipeg Stewardship Board (LWSB) was established with the mandate to research, identify, and assist action necessary to reduce nitrogen and phosphorus loading to Lake Winnipeg to pre-1970 levels.[77]

The LWSB's first report had a total of thirty-two recommendations, eight of which directly related to agriculture. The LWSB touched on issues of nutrient loss from confined livestock areas, livestock access to riparian areas and waterways, soil fertility testing, evaluation of beneficial management practices for nutrient reduction, integrated watershed management, and drainage of agricultural lands, among others.[78] LWSB recommendations included researching BMPs, educational initiatives, incentive and subsidy programs for activities such as wetland retention and soil testing, establishment of Watershed Management Districts, and

updates to existing legislation and new regulations.[79]

The LWSB report encouraged discussion of the impact that land conversion and wetland drainage had on flood mitigation and nutrient sequestering. As one of the many benefits of wetlands is that they can reduce the severity of flooding and pollution by slowing, cycling, and storing water, the concern over the vast amount of natural lands being converted for agricultural production drew government attention to existing environmental damage and land management.[80]

***Intensive Livestock Operations and the Expanding Hog Sector***

As discussed in the previous chapter, Manitoba's hog industry expanded rapidly in the latter part of the 1990s. With the end of the province's single-desk selling system in the mid 1990s, among other factors, hog Intensive Livestock Operations (ILOs) expanded in number and size. The explosion in pork production came at a time of growing concerns with the pollution in Lake Winnipeg. This growth generated public and media attention regarding the economic, social, and environmental cost/benefits. In response, the provincial government adopted several public consultation processes including the Clean Environment Commission hearings and the Livestock Stewardship Panel (2000). These forums sought public input and reports were compiled for the provincial government.

In December 2000, *Finding Common Ground*, a report prepared by the Livestock Stewardship Panel for the Government of Manitoba, concluded,

> Public apprehension about intensive livestock operations (ILOs) is being driven by several factors: experiences in other jurisdictions, declining familiarity with what is happening on farms, the occasional local "horror story", and the perception of insufficient monitoring of ILOs.[81]

Furthermore, the Panel devoted an entire chapter to the topic of the environment and health concerns relating to sustainable livestock development. In the report's sixth chapter, the Panel

addressed four main categories: water quality, air quality, health issues, and climate change. As part of their research methodology, the Panel held a number of public consultations. With regard to water quality, most of the public concern surrounded deteriorating surface and groundwater caused by ILOs. In particular, many citizens feared that possible over-application of hog manure was having detrimental effects on the province's water systems.[82] Although the negative effects of ILOs had not been scientifically proven to be the largest threat to the province's water, the panel concluded that cumulative agricultural activities were likely, but not sole contributors, to such problems as the eutrophication of Lake Winnipeg.[83] The Livestock Stewardship Panel recommended additional enforcement of existing regulations concerning manure management and increased penalties for infractions.

Successful grain farming resulting in high crop yields depends greatly on a delicate balance of minerals and nutrients in the soil. Phosphorus and nitrogen, classified as nutrients, naturally occur in water and air and they are also found in natural and chemical fertilizer. These nutrients are not harmful in and of themselves, but if they are concentrated in excessive amounts they can lead to environmental problems. Large hog operations produce millions of gallons of effluent, which is held in tanks and needs to be emptied periodically. Manure, rich in nutrients, is then spread onto land instead of commercial alternatives. Over-application of manure occurs when areas of soil that are nutrient rich receive more fertilizer than is needed to be productive. The soil either absorbs too much, limiting its biodiversity, or the soil may begin to reject the added nutrients and runoff occurs. Movement of nutrients can also occur through wind and soil erosion. This poses problems for surrounding water systems, as nitrogen and phosphorous in excessive amounts upset the ecosystems of rivers and lakes.

Public concern over the environmental impact of hog barns was further provoked by media attention paid to community disputes (between those for and against them) and environmental damage due to effluent spills.[84] For example, in 2002, a spill of over four million litres of hog manure near MacGregor, Manitoba contaminated ground wells after a steel manure tank split open. Another example of negative media focused on a similar incident on an Interlake Hutterite Colony in 2003. Both farms were not prosecuted for the manure spills due to the fact their operations were built previous to 1997 and newly enacted provincial regulations did not apply.[85] Regardless of economic benefit, an overwhelming focus on potential environmental impacts of the agricultural industry was a topic of public concern in the early 2000s. The *Winnipeg Free Press* editorial page published numerous articles that called for stricter regulations and limits on hog barn production.[86]

Most Canadians rely heavily on the mass media, principally television, newspapers, and radio, as their primary source for political and social information. The influence of the media on the policy environment is profound. The current consensus on the role of the media is that they help set the political agenda for the country.[87] In other words, the media tell people what to think about and highlight what the important issues are. In this respect, they help define what is political. A perfect illustration of this concept has been the media attention on the environmental issues surrounding Lake Winnipeg and the negative attention towards hog barns by Manitoba's urban media. As media attention often translates into public attention for environmental issues, politicians are encouraged to respond.[88]

The issues discussed above coincided with an agricultural industry that was faced with financial pressures and distress caused by low commodity markets, growing levels of debt, and trade barriers (e.g. BSE). The presentation of the ALUS pilot project offered Manitoba's political

leaders an alternative to imposing regulatory action, which may have resulted in further financial burden to farmers. The ALUS proposal was developed with the Manitoba policy environment in mind and was ready to be implemented as soon as government funding was secured. The availability of a workable pilot project that was supported by the industry and conservation groups, complemented the provincial government's commitment to better address environmental concerns related to agriculture.

The political stream that Kingdon's agenda-setting theory describes is supported by the ALUS case study. First, stakeholder groups were persistent in pushing their proposal for government acceptance and building broad consensus in the policy community. Second, the NDP government, which had come to power in the late 1990s, had committed to addressing environmental issues in the province. It can only be speculated whether a different political party would have made the environment a priority especially given the public attention to multiple issues. However, the ALUS program and Blanshard project fit well with the NDP government's policy agenda. Third, the widespread attention to environmental issues served to shift the public mood that contributed to a policy environment, which was favourable to enabling the ALUS project to be considered as a viable political option.

## 3.4 Summary

Agenda-setting is a dynamic process shaped by policy actors, institutions, and context. How the political agenda is established and by what means an issue receives attention and action, is largely determined by interests involved, how issues are presented at a given time, public attention, political leadership, and broader policy trends. Political leaders operate with existing policy frameworks and budgetary restraints and must therefore prioritize issues on the political

agenda. Risks, costs, and benefits of proposed policy action are considered and policymakers will then choose to either support or resist policy proposals and change.

This chapter's first section discussed the challenges and opportunities to policymaking presented by Canada's federal system. The complexity of intergovernmental relations, especially in areas of shared jurisdiction, can present obstacles for policy change and/or the adoption of new policy tools. It was a lengthy process to get the necessary financial support from the federal government but the eventual acceptance of the Blanshard ALUS project is evidence that policy change is possible and that policy suggestions can rise from the grassroots level. The ability of stakeholders to build broad consensus in the policy community, present a technically feasible project proposal (e.g. trade neutral, could be implemented with existing government agencies) that could be funded through an existing policy framework (i.e. APF), and gain the support of the Manitoba provincial government, who in turn encouraged their federal counterparts to support the ALUS initiative, all contributed to the adoption of new policy tool.

Interest groups serve a variety of roles in the Canadian policymaking environment. The contribution of these policy entrepreneurs in the push for ALUS, as was discussed in the previous chapter, cannot be overstated. The partnership formed among KAP, DW, LSRCD, and the RM of Blanshard, in addition to the numerous groups that endorsed ALUS, provided legitimacy to the programming concept. The broad consensus and lack of opposition provided a politically feasible policy option for policymakers to consider. In particular, the longstanding relationship between KAP and government actors (both political and bureaucratic) was pivotal in establishing a dialogue on the issue and resolving resistance to the proposal.

Political leaders at both the federal and provincial level supported the ALUS program for reasons beyond electoral incentives. ALUS complemented existing policies and priorities (e.g.

enhancing environment stewardship, economic stability for the agricultural industry) of the federal and provincial governments. Public attention towards environmental issues and the connection being drawn to the agricultural industry reinforced that policy action was needed.

As Randall Hansen and Desmond King argue, ideas are most likely to be translated into policy under three conditions: "when there is a synergy between ideas and interests, when the actors possess the requisite enthusiasm and institutional position, and when timing contributes to a broad constellation of preferences that reinforce these ideas, rather than detracting from them."[89] In the case study of ALUS, Hansen and King's argument is supported. In addition, Kingdon's agenda-setting theory argues, when all three streams (problem, policy, and political) converge, a window of opportunity is created for policy change. Kingdon explains, the window of opportunity is presented when a problem is recognized, solutions are developed/available, it is the right time in the political environment for change, and constraints are not severe.[90]

This chapter aimed to understand how institutions, actors, and context helped enable a window of opportunity for ALUS to be adopted. Combined with problem recognition and the availability of a viable policy alternative, policy change towards the agricultural industry was facilitated.

## Notes

[1] Neil Bradford, Ideas, *Politics, and National Policy Innovation*, 15.
[2] Kenneth McRoberts, "Federal Structures and the Policy Process", In Michael Atkinson, ed., *Governing Canada: Institutions and Public Policy,* (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 44.
[3] John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (New York: HarperCollins, 1995).
[4] Michael M. Atkinson, ed., *Governing Canada: Institutions and Public Policy*, (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 3. For further reading on the neo-institutionalist perspective, please see Andre Lecours, ed., *New Institutionalism: Theory and Analysis*, (Toronto: University of Toronto Press, 2005).
[5] Michael M. Atkinson, ed., *Governing Canada: Institutions and Public Policy*, (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 21. Also see: Eugene Lee, "Institutions and the Integrity Gap in Canadian Environmental Policy", In Eugene Lee, ed., *The Integrity Gap,* (Vancouver: UBC Press, 2004), 7.
[6] Kenneth McRoberts, "Federal Structures and the Policy Process", In Michael M. Atkinson, ed. *Governing Canada: Institutions and Public Policy,* (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 149-150.
[7] Colin Hay, *Political Analysis: A Critical Introduction,* (Houndsmill: Palgrave, 2002), 116-117.
[8] Howlett and Ramesh, *Studying Public Policy: Policy Cycles and Policy Subsystems*, 27**.** Michael Atkinson, "Public Policy and the New Institutionalism", In Michael M. Atkinson, ed., *Governing Canada: Institutions and Public Policy*, (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 44.
[9] Canada, Justice Canada, *Constitution Act, 1867*, Section VI Distribution of Power, [Online]
[10] Ibid.
[11] Land stewardship policies are actions taken by governments that require, enable or encourage land users to manage land in ways that maintain or enhance natural capital for future generations. Please see: Geneva Rae and Bethany Beale, *Thinking Outside the Fence: International Land Stewardship Policy Options for the Canadian Agricultural Sector*, Canadian West Foundation, March 2008 [Online]
[12] Kathryn Harrison, *Passing the Buck: Federalism and Canadian Environmental Policy*, (Vancouver: University of British Columbia Press, 1996).
[13] Grace Skogstad, "Intergovernmental Relations and Politics of Environmental Protection in Canada", In Kenneth M. Holland, F.L. Morton, and Brian Galligan, eds., *Federalism and the Environment*, (Westport: Greenwood Press, 1996), 125.
[14] Ibid.
[15] Michael Howlett and M. Ramesh, *Studying Public Policy: Policy Cycles and Policy Subsystems*, 2nd ed., (Don Mills, Ont.: Oxford University Press, 2003), 63.
[16] The Department of Manitoba Agriculture, Food, and Rural Initiatives (MAFRI) was renamed Manitoba Agriculture, Food, and Rural Development in October 2013.
[17] Manitoba, Water Stewardship, Lake Winnipeg Stewardship Board, A. Bourne, et al., "A preliminary estimate of total nitrogen and total phosphorus lead to streams in Manitoba, Canada", *Interim Report: Reducing Nutrient Loading to Lake Winnipeg*, January 2005 [Online]
[18] Robert F. Adie and Paul G. Thomas, Canadian Public Administration: Problematic Perspectives, 2nd ed., (Scarborough: Prentice-Hall Canada, 1987). 456. Also see: Richard Simeon, "Federalism and Intergovernmental Relations", In Christopher Dunn, ed., *The Handbook of Canadian Public Administration*, (Oxford: Oxford University Press, 2002), 205.
[19] Paul G. Thomas, "Leading From the Middle: Manitoba's Role in the Intergovernmental Arena", *Canadian Political Science Review*, 2, 3 (September 2008), 41.
[20] Ibid.
[21] Paul G. Thomas, "Leading From the Middle: Manitoba's Role in the Intergovernmental Arena", *Canadian Political Science Review*, 2, 3 (September 2008), 38.
[22] Ibid., 39.
[23] Kenneth McRoberts, "Federal Structures and the Policy Process", In Michael M. Atkinson, ed. *Governing Canada: Institutions and Public Policy,* (Toronto: Harcourt Brace Jovanovich Canada Inc., 1993), 159. Also see: Also cases where there has been effective collaboration. For an example in the field of agriculture, please see: Grace Skogstad, *The politics of agricultural policy-making in Canada*, (Toronto: University of Toronto Press, 1987), 162-163. Grace Skogstad, "Internationalization and Canadian Governance: The Case of Agriculture and Food", Seagram Lecture, 2006 [Online]
[24] Arthur Kroeger, "A retrospective on policy development in Ottawa", *Journal of the Institute of Public Administration of Canada*, 39, 4, (Winter 1996), 1.

[25] Michael Howlett and M. Ramesh, *Studying Public Policy: Policy Cycles and Policy Subsystems*, 2nd ed., (Don Mills, Ont.: Oxford University Press, 2003), 65.
[26] Rand Dyck, *Canadian Politics: Critical Approaches*, 3rd ed. (Scarborough, Ontario: Nelson Thomson Learning, 2000), 358.
[27] Bonnie Baltessen, "U of S economist urges rethinking ag policy", *Manitoba Co-operator*, February 23, 2006, 2.
[28] Donald J. Savoie, *Governing from the Centre*, (Toronto: University of Toronto Press, 1999), 8.
[29] Daniel Winters, "Strategy the topic at EG&S panel discussion", *Manitoba Co-operator*, 68, 14, April 8, 2010, 8.
[30] Ian Wishart, Personal Interview May 30, 2013. Roy Greer, Personal Interview, May 24, 2013. Bob Sopuck, Personal Interview, June 3, 2013. Rosann Wowchuk, Personal Interview, October 15, 2014.
[31] Ibid.
[32] Barry K. Wilson, *Farming the System: How Politicians and Producers Shape Canadian Agricultural Policy*, (Saskatoon: Western Producer Prairie Books, 1990), 56.
[33] Ian Wishart, Personal Interview May 30, 2013. Roy Greer, Personal Interview, May 24, 2013. Bob Sopuck, Personal Interview, June 3, 2013.
[34] Brian Cross, "Program pays those who protect", *The Western Producer*, January 1, 2009 [Online]
[35] Bonnie Baltessen, ALUS waits on further discussion, *Manitoba Co-operator*, July 24, 2005 [Online] Bonnie Baltessen, "Slow progress on ALUS frustrates Wishart", *Manitoba Co-operator*, April 21, 2005 [Online] Laura Rance, "ALUS architect frustrated by pilot delays", *Farmer's Independent Weekly*, February 2005 [Online]
[36] Rosann Wowchuk, Personal Interview, October 15, 2014.
[37] Robert D. Sopuck, Alternative Land Use Services (ALUS), "A positive initiative for wildlife habitat: Ag ministers get the ball rolling on conservation of private lands", Winnipeg Free Press, July 16, 2005 [Online]
[38] A. Brian Tanguay, "Political Parties and Canadian Democracy: Making Federalism Do the Heavy Lifting," in H. Bakvis and G. Skogstad, eds. *Canadian Federalism: Performance, Effectiveness and Legitimacy* (Don Mills: Oxford University Press, 2002) 305.
[39] Rand Dyck, *Canadian Politics*, 2nd ed., (Scarborough: Nelson Thompson Ltd., 2002), 342.
[40] A. Paul Pross, *Group Politics and Public Policy*, (Toronto: Oxford University Press, 1992), 6.
[41]Newman and Tanguay, "Crashing the Party: The Politics of Interest Groups and Social Movements", 407.
[42] Felix Holtmann, *A Blueprint For Transparency: Review Of The Lobbyist Registration Act,* (Ottawa: House of Commons Standing Committee on Consumer and Corporate Affairs and Government Operations, 1993), 7.
[43] Neil Bradford, *Ideas, Politics and National Policy Innovation*, 1.
[44] Richard Simeon, *Federal-Provincial Diplomacy: The Making of Recent Policy in Canada*, (Toronto: University of Toronto Press, 1972), 144.
[45] Manitoba is a relatively small society of approximately 1.2 million people, with over 60 percent of the population located in the capital city of Winnipeg where the provincial government is headquartered. Compared to larger provinces, Manitoba's governmental system operates on a smaller scale with 57 Members of the Legislative Assembly, nineteen Cabinet ministers, nineteen deputy ministers and a civil service of approximately 15,000 civil servants.
[46] Paul Vogt has served as Manitoba's Clerk of the Executive Council since 2005. Previously he served as policy secretary to the provincial Cabinet from 1999-2005. Paul Vogt, "The Manitoba Cabinet", In Paul G. Thomas and Curtis Brown, eds., *Manitoba Politics and Government: Issues, Institutions, Traditions*, (Winnipeg: University of Manitoba, 2010), 193.
[47] Paul Vogt, "The Manitoba Cabinet", In Paul G. Thomas and Curtis Brown, eds., *Manitoba Politics and Government: Issues, Institutions, Traditions*, (Winnipeg: University of Manitoba, 2010), 193.
[48] John Sawatsky, *The Insiders: Government, Business, and Lobbyists*, (Toronto: McClelland & Stewart, 1987).
[49] James Battershill, Personal Communication, May 30, 2014.
[50] Ian Wishart, Personal Interview May 30, 2013. Roy Greer, Personal Interview, May 24, 2013. Bob Sopuck, Personal Interview, June 3, 2013. Rosann Wowchuk, Personal Interview, October 15, 2014.
[51] Stuart N. Soroka, *Agenda-Setting Dynamics in Canada*, (Vancouver: University of British Columbia Press, 2002).
[52] Howlett and Ramesh. *Studying Public Policy: Policy Cycles and Policy Subsystems*, p.104.
[53] Robert Adie and Paul G. Thomas, *Canadian Public Administration: Problematic Perspectives*, 2nd ed., (Scarborough: Prentice-Hall Canada, 1987), 340.
[54] Ibid., 193.
[55] Donald J. Savoie, *Governing from the Centre*, (Toronto: University of Toronto Press, 1999), 313.
[56] Ibid., 107.

[57] The Northern constituencies included Flin Flon, Rupertsland, The Pas, and Thompson. Brandon's two seats (Brandon-East and Brandon-West) were both held by NDP MLAs. The six rural seats included Dauphin-Roblin, Swan River, Gimli, Interlake, La Verendrye, and Selkirk. However, it should be noted that due to electoral boundaries being redrawn in 2008, some of the rural constituencies cited have experienced a name change.
[58] Christopher Adams, *Politics in Manitoba: Parties, Leaders, and Voters*, (Winnipeg: University of Manitoba Press, 2008), 23.
[59] Christopher Adams, "A New Era of Materialism? Canadian Public Opinion and the Environment", *Inroads: The Canadian Journal of Public Opinion*, 19 (Summer/Fall 2006), 7-10.
[60] In collecting data from Manitoba news sources, there were only two articles in the Winnipeg Free Press in 2004 and 2005. Each of these articles was a submission by Robert Sopuck on behalf of the Delta Waterfowl—one of the partners of the Blanshard ALUS project. No articles mentioning ALUS were found in the Winnipeg Sun.
[61] Grace Skogstad, "Policy Networks and Policy Communities: Conceptualizing State-Societal Relationships in the Policy Process", In Linda A. White, Richard Simeon, Robert Vipond, and Jennifer Wallner, eds., *The Comparative Turn in Canadian Political Science,* (Vancouver: UBC Press, 2008), 207.
[62] John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (New York: HarperCollins, 1995), 132.
[63] Manitoba, Legislative Assembly of Manitoba, "Speech from the Throne", *Hansard*, November 27, 1997, 36th Legislature, 4th Session [Online]
[64] Doug Ramsay and John C. Everitt, "Post-Crow Farming in Manitoba", In *Writing Off the Rural West,* Roger Epp and Dave Whitson, eds., (Edmonton: The University of Alberta Press, 2001), 3-20. For additional discussion on the contributing factors of rapid growth in the hog industry in Manitoba, please refer to section 2.1.
[65] John W. Kingdon explains that 'focusing events' are important factors in creating a window of opportunity for a policy to be adopted. John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (New York: HarperCollins, 1995). Randall Hansen and Desmond King also emphasize the importance of timing for a policy issue to move forward on the government's agenda. Hansen and King, "Eugenic Ideas, Political Interests, and Policy Variance: Immigration and Sterilization Policy in Britain and the U.S.", *World Politics*, 53, 2, (January 2001), 339.
[66] Named after the visionary Premier, Duff Roblin, who was responsible for its creation, as he pushed for its construction despite facing great criticism.
[67] Manitoba. Manitoba Floodway Authority, "Duff's Ditch", [Online]
[68] Canada and Manitoba, Environment Canada and Manitoba Water Stewardship, *State of Lake Winnipeg: 1999 to 2007*, 2011 [Online] Also see: Leonard I. Wassenaar and Yerubandi R. Rao, "Lake Winnipeg: The forgotten great lake", *Journal of Great Lakes Research*, 38 (2012), 1-5.
[69] Canada and Manitoba, Environment Canada and Manitoba Water Stewardship, *State of Lake Winnipeg: 1999 to 2007*, 2011 [Online]
[70] Ibid.
[71] Ibid.
[72] Leonard I. Wassenaar and Yerubandi R. Rao, "Lake Winnipeg: The forgotten great lake", *Journal of Great Lakes Research*, 38 (2012), 1-5.
[73] In 2005, an estimated 14,000 square km of Lake Winnipeg was covered in algae blooms. Garrity Hill, *A Post-Environmental Discourse: Rhetoric, Science and Legitimacy in Environmental News Coverage of Lake Winnipeg, Canada,* 2012 [Online]
[74] This strategy established a framework for management and protection of water in the province.
The goals are to address cumulative issues from numerous activities in a watershed or between watersheds, have appropriate legislation to enable effective management options and have a financing framework that allows for effective implementation and future management actions.
[75] Lake Winnipeg Stewardship Board, *Our Collective Responsibility: Reducing nutrient loading to Lake Winnipeg,* January 2005 [Online]
[76] Ibid.
[77] Lake Winnipeg Stewardship Board, *Our Collective Responsibility: Reducing nutrient loading to Lake Winnipeg,* Interim Report to the Minister of Water Stewardship for Manitoba, January 2005 [Online]
[78] Ibid.
[79] Ibid.
[80] Ron Friesen, "Wetland drainage increases spring flooding, research shows", *Manitoba Co-operator*, 69, 99, (May 12, 2011), 12
[81] Manitoba, Livestock Stewardship Panel, *Finding Common Ground,* December 2000 [Online]
[82] Ibid.

[83] Ibid.
[84] Sam Thompson, "Hog wild in McAuley", *Virden Empire Advance*, May 12, 2003: 1-2
[85] Theresa Vandean, *The Negative Social Impacts of Manitoba's Hog Industry and the Implications for Social Sustainability*, Manitoba Legislative Internship Programme, 2003 [Online]
[86] *Winnipeg Free Press*, "Manure tanks", Editorial, March 21, 2003: A14. *Winnipeg Free Press,* "Set limits on swine", Editorial, February 22, 2003: A18.
[87] Rand Dyck, *Canadian Politics*, 2nd ed., (Scarborough: Nelson Thompson Ltd., 2002), 143.
[88] Kathryn Harrison, *Passing the Buck: Federalism and Canadian Environmental Policy*, (Vancouver: University of British Columbia Press, 1996).
[89] Randall Hansen and Desmond King, "Eugenic Ideas, Political Interests, and Policy Variance: Immigration and Sterilization Policy in Britain and the U.S.", *World Politics*, 53, 2, (January 2001), 339.
[90] John W. Kingdon, *Agendas, Alternatives, and Public Policies*, (New York: HarperCollins, 1995), 165.

# Chapter Four

## Decision-Making and Implementation of Manitoba's ALUS Project

This chapter details the decision-making and implementation stages of the ALUS pilot project. Decision-making refers to the process by which governments adopt a particular course of action or inaction.[1] Policymakers decide not only what course of policy action is taken but also what instruments will/will not be implemented to meet set goals. Policy implementation refers to the process by which governments put policies into effect.[2] How a program is designed and administered determines the extent to which objectives are met.

The ALUS pilot project represented a new policy approach for promoting both economic and environmental goals. This chapter begins with a discussion of four key reasons that help explain why the provincial government chose an incentive policy tool to achieve its goal of enhanced environmental management. The list of factors identified does not claim to be all-inclusive, but rather, represents the most plausible explanations for the policy decision. The explanations provided have been influenced by the information gathered from interviews with policy actors, a comprehensive review of media sources, and a variety of primary and secondary sources.

This chapter's second section details how the ALUS pilot in Blanshard, Manitoba was designed and administered. This discussion outlines: the project's delivery, roles of administrating bodies, landowner eligibility and payments, and the project's main objectives. The third section provides a breakdown of programming statistics including funding, acres and types of land enrolled, contract numbers, and average payments to landowners. This section also highlights key observations of the pilot project, which are further explored in the following chapter, which analyzes the project's evaluation.

This chapter's intention is to better understand the policy tools actors chose and why, the objectives of ALUS, and the administration of the pilot project. In addition, the analysis explores how the design and implementation of the pilot project largely influenced stakeholder participation.

## 4.1 Decision-making and Policy Tool Choice

Policy decisions are influenced and shaped by a multitude of factors. For example, budgets, legacy of policy instruments, political climate (e.g. party in power and priorities), leadership, relationships among actors, existing legislation and agreements, and current issues of public attention, are a few of the many contributing factors to policy decisions. These factors combined can either produce a window of opportunity for change, or create obstacles that inhibit or alter the change that occurs. This dissertation has argued that a window of opportunity existed that supported the adoption of the ALUS pilot project proposal Actors, institutions, and the policy environment all played important roles in the Manitoba government's decision to support the ALUS project.

Once government commits to a course of action, decisions are made as to what policy objectives will be and what policy instruments will be implemented to achieve desired results. Mark Winfield states,

> Policy instruments are the means by which governments move from the identification of problems and the change in behaviour needed to address them, to the actual implementation and policy responses. They are the means through which governments attempt to translate policy into reality. As a result, the choices governments make about policy instruments have a large influence on whether stated policy goals are actually achieved.[3]

Governments have a variety of tools and governing instruments at their disposal.[4] Some policy instruments that can be used by governments include legislation, regulations, taxes,

penalties, subsidies, education programs, and creation of new markets. The process of selecting appropriate instruments is rarely straightforward. It can be influenced by any number of factors, such as by the way things have been done in the past, dominant ideologies, preferences of particular politicians or bureaucrats, the availability of resources, the relative strengths of interest groups trying to influence the government, the media, and public opinion.[5] Furthermore, as Atkinson writes, government action is "anchored in both a set of values regarding public goals and a set of beliefs about the best way of achieving those goals."[6]

Compared to other developed countries, Canadian governments have used limited policy tools and have been criticized internationally for the "lack of innovation in environmental policy implementation."[7] Canada has largely favoured the regulatory model in addressing environmental management and industry standards. Restrictions, limits, punishments/penalties, conditions, and rules are all ways in which governments have sought to control industries. Frank Casey writes, "For the agricultural sector, the regulatory environment has become more complex in the past few years, and has resulted in higher compliance costs and disputes with regard to property rights."[8] In addition, Nicholas Schneider argues that Canada has relied on command and control instruments, while other countries are ahead in using market based instruments and incentive programs.[9] A 2004 OECD report suggested that Canada could improve its environmental performance by adopting economic instruments as an alternative to increased regulations and penalties.[10]

The ALUS pilot project represented an alternative policy approach towards the primary agricultural industry. It was proposed as an incentive-based program that would encourage farmers to make improvements to their operations that in turn enhance land stewardship. The

concept of paying farmers for the provision of ecological goods and services was also an innovative idea as it was a way to reward rather than restrict or punish landowners.

In the early 2000s, the Manitoba government made a number of commitments to improve environmental stewardship within the province. With this commitment came further decisions about what type of policy approach would be taken to address specific concerns. In regards to primary agriculture's impact on the environment, the government had to consider what policy tools would be most effective: implementing an incentive program (the carrot) and/or additional regulations or penalties (the stick). While Manitoba had traditionally opted for implementing regulatory controls, the ALUS pilot project proposal presented an alternative approach for policymakers to consider. As previously discussed, the timing of the ALUS proposal was a critical component of decision-making as actors, institutions, and the policy environment seemed to come together to support the adoption of ALUS. However, in a political environment that most often favours regulations over incentives, there are four reasons that can be identified that help explain why the provincial government chose the carrot over the stick.

The first major reason why the ALUS pilot project was an attractive alternative to regulations was the economic distress being felt within primary agriculture in the early 2000s. Structural changes within the industry, consecutive years of bad weather, the impact of trade disputes over the discovery of BSE, debt accumulation, and lower returns, all contributed to the financial strain on Canadian agricultural producers. Intensification, consolidation, and conversion of natural capital were ways in which farmers were coping with economic conditions. As the Manitoba government had committed to environmental goals within the province, the standards that farmers were expected to uphold began to change as well, particularly regarding water stewardship. Pressure to change operating practices often requires an investment from

producers, and at a time of economic distress, the concern was whether or not farmers would be able to comply with changing standards. During an interview, Rosann Wowchuk explained, the early 2000s were "a difficult time for Manitoba's agricultural producers" and the provincial government considered how policy action would impact an industry in distress.[11]

The primary agricultural industry is unique for a number of reasons when it comes to imposing regulations and penalties: financial burden is placed on individuals, not massive corporations; a farm operation's finances are largely tied up in capital (e.g. land, buildings, inputs, livestock) and it is often not economically feasible to implement expensive changes to the operation within a small timeframe; and, with a dependence on unpredictable and often volatile export markets, producers simply may not be able to afford the investment in their operation even if it would improve their bottom line in the long-term. With incentive-based programs like the Farm Stewardship Program (federal-provincial) and ALUS, producers were given the opportunity to invest in their operations, while having financial assistance to enable them to achieve environmental goals. As such, in a time of economic distress in agriculture, an incentive programs like ALUS was favourable, not only because it would reduce the financial burden on farmers, but also because it would help increase producers' capacity to make changes to their farming practices.

Rosann Wowchuk explains that as Minister, one of her main goals was to promote better land stewardship practices within agriculture.[12] While the small monetary reward ALUS provided to farmers would offset financial pressures, Wowchuk maintains that the overarching goals were environmental benefits and recognizing the role of farmers in providing EGS.[13] Therefore, the decision to adopt ALUS was influenced by the economic crisis in agriculture but the goal of ALUS was never to create another income support program. Wowchuk explains, the

provincial government was motivated to test the incentive program to understand how an EGS program could potentially improve environmental stewardship by encouraging farmers to "buy-in" and adopt BMPs.[14]

BMPs, which promote methods that help to mitigate harmful impacts caused by production, can improve a farmer's bottom line in the long-term. Not only is maintaining environmental integrity part of a viable operation over a long period but also the development of new techniques that lead to more efficient practices and reduce costly inputs can contribute to economic stability for farm families. As Annie Royer and Daniel-Mercier Gouin explain, agri-environmental payments

> contribute to the cost of meeting regulations, compensate for income lost by adopting certain practices, and reward farmers for providing environmental services. In this context, agri-environmental payments are seen as a vehicle, which could potentially contribute to meet the double objectives of providing environmental benefits to society while supporting farm income.[15]

Grace Skogstad explains that in the early 2000s, the economic crisis in agriculture had gained public sympathy and Canadian governments were focused on addressing producers' income problems.[16] To illustrate, in July 2005, at the annual meeting of Federal-Provincial-Territorial Ministers and Deputy Ministers of Agriculture, a number of topics were addressed. However, the agenda heavily focused on the industry's economic stability and included topics such as BSE, Manitoba's severe flooding, and business risk management programs.[17] In addition, EGS programming was on the agenda and Manitoba's agricultural minister, Rosann Wowchuk, detailed the proposed Blanshard pilot project.[18] A government news release stated,

> Ministers committed to the continued development of an ecological goods and services (EG&S) policy framework that balances both the benefits of agriculture and the responsibilities of producers for sound environmental stewardship. They also committed to engage producers and other stakeholders to support new research pilots

> that meet established criteria for policy development. Ministers agreed to hold a national symposium on EG&S that will be led by the Province of Manitoba.[19]

Wowchuk stated to the media that she considered the proposed Blanshard ALUS project to be "very important" and that she was hopeful that the project would receive federal funds and could move forward.[20] During a personal interview, Wowchuk explained that the Minister and Deputy Minister from Prince Edward Island partnered with Manitoba to promote the ALUS programming concept amongst their counterparts.[21] Wowchuk stated that there was some hesitation from the federal government, Saskatchewan, and Alberta "because they saw it as another income support program and there was already a lot of dollars being spent on agriculture during that time because of BSE."[22]

A number of conclusions can be drawn from the analysis above. First, it is clear that income stability and EGS were both major issues being actively discussed at the federal and provincial level. Second, Manitoba's producers were facing additional financial stress caused by severe flooding, which again, linked environmental and agricultural concerns. Third, Manitoba assumed a leadership role amongst its counterparts in supporting EGS initiatives and presenting the ALUS Blanshard project as a potential programming model.

Manitoba's adoption of an incentive program like ALUS rather than further regulations suggests that another key reason for the policy tool choice was that existing policies were not encouraging or enforcing desired environmental practices. Regulation can be described as a "prescription by the government that must be complied with by the intended targets; failure to do so usually involves a penalty."[23] Regulations and the associated penalties that often follow have limitations in ensuring standards or encouraging change. Ian Wishart argues,

> experience has shown that the regulation of extensive land use activities on the private agricultural landscape is expensive and ineffective. Excessive regulations only serve to alienate the rural community from urban residents and decision makers.

> Furthermore, none of the various programs (i.e. Species at Risk Act, the North American Waterfowl Management Plan, zoning and drainage regulations, etc.) have been effective on the scale required to deliver "landscape" size environmental results.[24]

Furthermore, regulations can exist but can be ignored due to spotty enforcement.[25] Rosann Wowchuk explains that governments are always concerned that regulations are not working are not being enforced the way they need to be.[26] Wowchuk gave the example that existing Manitoba regulations require farmers to have drainage permits but when permits take too long, or are a hassle to get, many farmers go ahead and drain the wetlands.[27] Howlett and Ramesh argue that compliance can be better encouraged through the use of incentives. They state,

> Subsidies offer numerous advantages as policy instruments. First, they are easy to establish if there is a coincidence of preference between what the government wants someone to do and what the latter desires. If the target population believes an action to be desirable but for some reason does not carry it out, then a subsidy may make a difference in their behaviour.[28]

Tristan Knight argues that the expanded use of incentive-based policies and program instruments designed to generate agri-environmental benefits above existing regulatory requirements, promotes the uptake of practices associated with few private benefits but substantial benefits to society.[29] As such, when regulations have not been overly effective in encouraging compliance or improved standards of practice, an incentive program like ALUS presented an opportunity for policymakers to gauge the willingness of individuals to become voluntarily involved and make changes to their operating practices for a relatively small reward. The ALUS program would allow farmers to incorporate improved environmental stewardship into their operation and also receive recognition for the positive steps they were taking.

A third reason why the Manitoba government supported an incentive-based approach was the partnerships that formed among stakeholder groups in developing and promoting the ALUS program.[30] As previously discussed, the Keystone Agricultural Producers, Delta Waterfowl, the

Little Saskatchewan River Conservation District, and the RM of Blanshard were pivotal in the agenda-setting process. These groups presented a strong proposal to the Manitoba government, in which they outlined a feasible pilot project for consideration. The ALUS pilot project complemented existing provincial goals and programs, proved to have the support of both industry and conservation groups, and responded to public concerns over pollution in Lake Winnipeg caused in part by agricultural sources. The strength of these groups in working with government leaders and bureaucrats to promote the 2004 pilot project proposal as a workable solution was a key determinant in the provincial government's decision to choose an alternative policy instrument.[31] The stakeholder groups supported the idea that to promote significant changes to environmental stewardship practices on private land, it was essential for farmers to become involved in the program and enable them through small financial rewards for going beyond regulatory standards.

The fourth reason that the incentive-based ALUS pilot project was favourable to government actors was that if implemented, it would be one of many instruments being used to ensure improved environmental standards. The reality of any policy decision is that adopting a new policy instrument does not necessarily mean that other policy measures are replaced, but rather, they coexist within a larger policy framework. Therefore, the ALUS project could be considered as the carrot within the sticks. The Blanshard pilot project would test the ALUS programming concept as a tool within a larger policy framework to ensuring better land stewardship.[32] Rosann Wowchuk explains that regulations are useful in providing a framework for programs like ALUS to exist within.[33] Therefore, a combination of policy instruments is desirable as regulations, for example, can ensure minimum standards are met while incentive-programs can enable those standards to be exceeded.

A "flexible" policy approach to sustainability has been supported by academics such as Sandra Batie, David Ervin, and David Zilberman.[34] The flexible approach supports the application of a range of policy tools (e.g. penalties, education, incentives/subsidies, regulations) as a means of working towards environmental and economic objectives. Any policy instrument that governments use is a means to an end—not an end in itself. Therefore, broader strategies and multiple considerations often lead governments to adopt a range of policy tools to meet their objectives.

By encouraging and enabling agricultural producers to develop and apply better environmental management technology and skills, Canadian governments demonstrated that alternative policy tools could be successful. The Farm Stewardship Program, which was discussed in the dissertation's first chapter, is a good example. The Farm Stewardship Program provided financial, technical, and educational assistance to identifying, implementing, and measuring environmental practices through the creation of Environmental Farm Plans (EFPs). If policy tools can complement rather than conflict with each other, government goals can be effectively pursued. Therefore, in the ALUS case, the provincial government had established certain standards with legislation and regulations. An incentive-based voluntary program would go one step further to reward, enable, and encourage farmers to make changes to their environmental stewardship practices.

At the time that the Manitoba government was making its final decisions on the ALUS project, there was also a larger governance trend of deregulation and "smart regulation" occurring internationally and in Canada.[35] These governance trends sought to reduce the amount of regulatory burden and overlap and promote the use of alternative policy instruments. The

support for less regulation and adoption of alternative policy instruments was demonstrated by the Manitoba government's willingness to attempt the ALUS pilot project.

Policy instruments are assessed in terms of compatibility with the goals outlined by governments and stakeholders. In this case, ALUS was presented as a policy tool that would enable enhanced environmental stewardship in primary agriculture, while also being considerate of the financial stress farmers were facing at the time. It was anticipated that the pilot project would provide valuable information to whether or not the program had the potential to be implemented more broadly.

There is a clear interconnection in the four reasons outlined in the discussion above. The Manitoba government chose a course of action to encourage primary agricultural producers to meet higher environmental standards and multiple factors led to the decision to implement the ALUS pilot project. The economic conditions within primary agriculture, the inability of existing regulations to promote environmental stewardship the province desired, the partnerships among stakeholder groups that strongly advocated for the program, and the larger framework of policies that ALUS would exist within, were major factors that helped influence policymakers to implement the ALUS pilot project.

In 2005, ALUS, the grassroots initiative considered a “radical idea” in 1999, was finally accepted by government as a new approach for meeting environmental goals in the province of Manitoba.[36] In October 2005, the provincial government's Throne Speech announced their decision. The speech stated,

> Manitoba will become the first province in Canada to develop a project to support farms in carrying out a range of environmentally friendly farming practices and alternative land uses. This project will support the agricultural community in its commitment to protect water quality, healthy soils, and wildlife habitats.[37]

This commitment coincided with the province's pledge to increase flood mitigation and continue its support for a multi-pronged research and protection strategy for the Lake Winnipeg watershed. Therefore, the decision to support the ALUS pilot project complemented existing goals and policies of the provincial government.

## 4.2 Manitoba's Alternate Land Use Services (ALUS) Pilot Project

The ALUS project, often referred to as "the farmers' conservation program", represented an innovative policy concept within Canada and was the first project of its kind when adopted in Manitoba in 2005.[38] It linked the environmental demands of Manitobans to the farmers whose land management practices provide ecological goods and services to society. ALUS demonstrated that it was possible for industry groups, conservationists, landowners, and various levels of government, to work together to find shared goals and workable programming solutions that reflected both economic and environmental considerations. In 2006, KAP stated,

> ALUS is an agriculturally focused conservation program that was developed by farmers, for farmers. It provides incentives for farmers and landowners to maintain and improve the environment on behalf of all Canadians. … ALUS is unique because it is drawing together all of these groups to work together on a program that meets a common goal: Farmers being recognized and rewarded for the environmental services they provide.[39]

The Manitoba government largely adhered to suggestions for program delivery outlined in the 2004 ALUS proposal presented by KAP, DW, LSRCD, and the RM of Blanshard. The following discussion details key features of the pilot project's administration and delivery, the EGS payment structure, and main objectives.

In November 2005, the federal and provincial governments jointly announced the three-year ALUS pilot project. On behalf of federal Minister of Agriculture and Agri-Food Andy Mitchell, Anita Neville, a Winnipeg MP stated,

> The health of the agriculture industry is closely tied to the health of the environment. Manitoba producers are working with governments and the industry to strengthen their longstanding tradition of carefully managing their farmland. Pilots such as the EG&S project are powerful instruments exploring different thinking and the federal government will follow its progress attentively.[40]

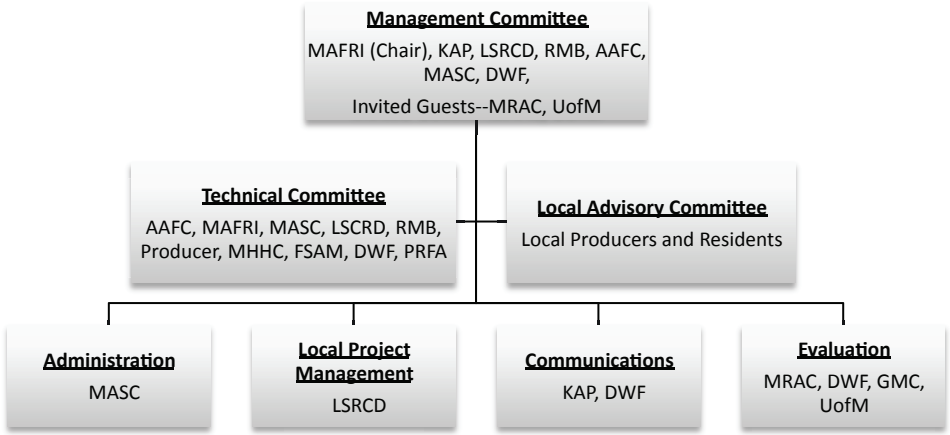
At the announcement Ian Wishart, on behalf of KAP, stated,

> This project … empowers farmers and rural communities to take the lead in environmental stewardship and is the first of its kind in Canada. By recognizing the important environmental contributions of farmers, this pilot project is truly a new direction for agriculture and conservation in Manitoba.[41]

In Fall 2006, the pilot project commenced in the RM of Blanshard. Blanshard was regarded to be an ideal location to test the program concept and delivery for three main reasons: first, there was a strong interest shown by local producers, conservation groups, and the RM Council wanting to be involved; second, the geographic location (i.e. pothole region) was considered typical agro-Manitoba and the area's size was described as "workable for evaluation"; third, the RM had valuable baseline data about land use in the area, which would help with evaluating the changes in land stewardship.[42]

Three committees were formed to administer the project. The organizational structure of the ALUS administration is illustrated in Figure 4.1.

**Figure 4.1: ALUS Project Organization**




Source: Compiled sources

The Management Committee's roles were to review the progress of the Blanshard project, receive feedback from other committees, and make policy decisions. The Management Committee included representatives from Manitoba Agriculture Food and Rural Initiatives (MAFRI), Agriculture and Agri-Food Canada/Prairie Farm Rehabilitation Administration (AAFI/PFRA), KAP, DW, LSCRD, MASC, and the RM of Blanshard. The Management Committee met quarterly to review the pilot project's progress and to make policy decisions as required. As it was responsible for overseeing all aspects of the pilot project, the Management Committee reviewed and approved all project details including technical specifications, program design, payment levels, communications, and expenditures. This committee also served as the Producer Appeals Committee and in this role reviewed any appeals from producers with regard to disputes over the contract guidelines and payment for land services. The decisions of this committee were considered final.

The Technical Advisory Committee was composed of MAFRI, AAFC/PFRA, MASC, LSRCD, and Manitoba Habitat Heritage Corporation (MHHC). This committee developed the technical aspects of the project such as the terms and conditions of contracts, appropriate technological methods (e.g. GIS technology), auditing protocols, and the delineation of ecological boundaries. In addition, this committee provided technical expertise that determined and described eligible land to be enrolled, appropriate technological methods, payment levels for land practices, and preliminary contract design. Furthermore, the Technical Advisory Committee established practice standards and developed protocol for land practices to be audited and verified.

The role of the Local Advisory Committee was to engage the local community and provided feedback to the Management and Technical Committees. The Local Advisory

Committee was composed of local producers and one non-farming local resident (a retired teacher). This committee provided feedback on issues such as community reactions and points of potential conflict. In addition, this committee provided local landowners, who had knowledge of the area, an outlet to voice concerns and suggestions to project leaders. The Local Advisory Committee served as the liaison between landowners and the Management and Technical Committees. When landowners made an appeal to the Management Committee, members of the Local Advisory Committee would be selected to serve on the Appeals Committee.

The Manitoba Agricultural Services Corporation (MASC) administered Blanshard's ALUS pilot project. MASC had expertise in administering, delivering, and auditing agricultural programming (e.g. Crop Insurance). The long history of working with farmers at the local level was considered a valuable asset as farmers were familiar with how MASC operated and there was an established relationship of trust. MASC worked closely with the Little Saskatchewan River Conservation District who acted as the local project management in Blanshard.

Steve Hamm, the project's manager, was appointed to serve as the liaison among the committees and local landowners and stakeholders. Hamm had experience as a soil cartographer and his expertise in precision agriculture, which utilizes GIS technology, soil surveys, and geographical data, helped landowners better understand their eligibility to enrol land in ALUS. Moreover, the information provided to landowners was used to facilitate accurate data in the project for verification, analysis, and evaluation. In addition, Hamm was tasked with the responsibility of tracking program expenditures, conducting research, and making recommendations to the Management Committee when required.

The Keystone Agricultural Producers and the Delta Waterfowl took the lead on communications, making presentations, utilizing media sources, answering questions at public

meetings, and being available to interested parties, inside and outside the province, to discuss the Blanshard project and the ALUS programming concept.

Landowners were made aware of the ALUS pilot through public meetings, media coverage, information letters, and word of mouth in the small rural community. In the Fall, interested landowners contacted the LSRCD/MASC offices and expressed their willingness to participate and detailed the land locations they wished to enrol the following Spring. Eligible acres were determined by MASC and LSRCD using orthophotos and geographic information system (GIS) technology.[43] These precise technologies were able to map land features to the tenth of an acre.[44] Maps were then verified through field audits. The landowner confirmed the calculation of "ALUS lands" and could change or adjust the preliminary analysis to fit with their specific production needs.[45] The landowner signed and submitted the application form and once reviewed, a statement of approved services was issued. The contract outlined the provision of EGS, landowner expectations for a three-year period, and was subject to annual renewal. Annual renewal allowed for flexibility, especially with regard to land transfers and land withdrawal as the contract was tied to the landowner and not the parcel of land. The land under contract was periodically monitored, audited, and inspected for compliance. Once the auditing process was completed, MASC issued an annual payment to the landowner based on their type of agricultural and environmental use. An appeals process was available to landowners to settle contract disputes.

The payment levels were based on the service provided and the level of agricultural use on the land. ALUS payment rates were determined by calculating approximate lost opportunity costs and land rental rates. Participating farmers received annual payments of $5 per acre for managed grazing areas, up to $15 per acre for natural areas, riparian areas, and wetlands

removed from row cropping, and up to $25 per acre for ecologically sensitive lands removed from row cropping. Farmers were also given the option of controlled grazing or limited haying around wetland areas with reduced payments. Figure 4.2 provides a breakdown of the eligible land practice and the payment per acre.[46]

**Figure 4.2 ALUS Pilot Project Land Services and Payment Structure**

| Service | No Agricultural Use (acre/year) | Haying (acre/year) | Grazing (acre/year) | Enrolment Possible |
|---|---|---|---|---|
| **Wetland Services** Wetlands refer to land areas on farms that hold spring-season, semi-permanent or permanent water. These include bogs, marshes and swamps. To be eligible, the wetland was required to be more than 10 acres. | $15 | $7.50 | $5 | 100% |
| **Riparian Buffer Services** A riparian buffer includes the riparian area plus areas of perennial cover that extend beyond the riparian area. A riparian buffer is an area of land developed or conserved to reduce erosion, intercept contaminants and provide wildlife habitat along the side of a watercourse or water body. The riparian area was required to at least be 10m on each side of the water body and could be up to 100m. | $15 | $7.50 | $5 | 100% |
| **Natural Area Services** Natural areas include native grasslands, shrubs, and trees that have not been cultivated in the past 20 years. | $15 | $7.50 | $5 | 100% |
| **Ecologically Sensitive Land Services** For ALUS, ecologically sensitive lands are class 4 to 7 lands currently cultivated or have been in the past 20 years, but are at risk for severe water erosion, wind erosion, flooding, salinity, runoff or leaching.[47] Perennial cover must be established on the land to be eligible. | $25 | $10 | $5 | 20%[48] |

Source: ALUS Technical Advisory Committee, 2006.

There were four main objectives of the ALUS pilot project in Blanshard.[49] The first objective was to test the feasibility of the ALUS concept at the local level. The project explored how the locally driven approach delivered in terms of social, economic, and environmental benefits. Secondly, the pilot project tested the ability of an existing agricultural agency (i.e. MASC) to effectively deliver the landscape conservation program.[50] The third main objective of the ALUS project was to determine whether or not landowners would respond to a voluntary incentive-based program. The project would determine the extent of landowners' willingness to participate, what types of land they would enrol, compliance rates, and how farmers responded to

the delivery model.[51] The fourth overarching goal of the ALUS project was to provide practical information to policymakers that could be utilized in the design of a large-scale national conservation program.

Pilot projects are designed to gather information but also to solve problems before broader application is considered. During the course of Manitoba's pilot project, other provinces including Ontario (Norfolk County ALUS project 2007) and Prince Edward Island (province-wide ALUS project in 2008) implemented similar programs. Since the end of the Blanshard pilot project in 2008, Alberta and Saskatchewan have also implemented ALUS projects. It was anticipated that the information gathered from these various pilots would provide valuable feedback to federal and provincial policymakers with regard to program delivery, methods, transaction costs, benefits, challenges, and farmer acceptance. The data gained from the ALUS projects would provide a better understanding of how environmental goals could be pursued on the agricultural landscape utilizing a incentive-based programming tool.

## 4.3 Program Results from Blanshard's ALUS Project and Key Observations

Statistics related to funding, direct administrative costs, land services, contract numbers, acres enrolled, compensation paid to landowners, and average payments (per contract and per acre), are important to analyze in the Blanshard ALUS case study. These breakdowns are particularly significant in drawing conclusions regarding the pilot project's implementation. The following section examines key statistical data and analyzes how well the ALUS project was able to meet its objectives. Therefore, the purpose of this section is to examine key statistical data to inform the discussion in Chapter 5.

***Funding***

The combined funding, from both government and non-government sources, totalled approximately $1.38 million over the three-year period.[52] The three-year ALUS initiative was made possible by a variety of funding sources. The bulk of funding came from Agriculture and Agri-Food Canada via the Manitoba Rural Adaptation Council (56%), followed by Manitoba Agriculture, Food, and Rural Initiatives (20%), Delta Waterfowl, in partnership with the Mississippi Wildlife, Fisheries, and Parks Commission, and the Tennessee Wildlife Resources Commission (13%), the RM of Blanshard (9%), and an in-kind contribution for services provided by the Keystone Agricultural Producers (3%).[53] Appendix M provides a detailed breakdown of revenues and expenditures of Blanshard's ALUS pilot project. All funds flowed through the Keystone Agricultural Producers to the Manitoba Agricultural Services Corporation, which was in charge of directly administering the project.

The pilot project was largely dependent on the Canadian government's financial contribution. There were some delays in receiving this funding which led to a delay in the project's implementation. In addition, despite being announced as a three-year pilot project, the funding for the final year was not guaranteed, which caused concern among the project's administrators.[54] This uncertainty provoked the evaluation process to begin after the second year instead of after the three-year project ended as had been originally planned.

The funding from the RM of Blanshard is especially noteworthy given that municipalities rarely provide conservation project funding from their general revenues.[55] Moreover, given the limited budgets of municipal councils, the RM's commitment demonstrated a significant show of support for the pilot project. Ian Wishart states, "The Blanshard Council made a powerful statement when they agreed to provide funds for the pilot project; a statement that was not lost

on decision makers at other government levels."[56] Roy Greer, a Councillor for the RM of Blanshard and Chair of the Little Saskatchewan River Conservation District during the course of the pilot project, explained,

> The RM Council recognized the impact this type of project would have for the rural municipality. Ultimately, the Council saw that a financial commitment would generate a much larger economic investment in the RM by other sources, improve land stewardship, and recognize the important ecological services landowners can provide.[57]

The 13% total funding for the ALUS project that came from the Delta Waterfowl in partnership with the Mississippi Wildlife, Fisheries, and Parks Commission, and the Tennessee Wildlife Resources Commission, also raises an important consideration. Canadian non-governmental organizations (NGOs) and their international counterparts may be able to play an important funding role in future ALUS project initiatives.

While the funding from the federal government, the RM of Blanshard, and the Delta Waterfowl and its international partners, points to some interesting observations regarding the pilot project's implementation, the funding from the provincial government should not be understated. Providing approximately 20% of the total cost for the pilot project, the Manitoba government's funding contribution was crucial to being able to successfully administer ALUS for the three-year period.

***Direct Administrative Costs***

Direct administrative costs of the pilot project included application processing, technical review, auditing, and administering payment to landowners provided by MASC, which totalled approximately $165,000 (2005-2008). The yearly breakdown demonstrates an interesting point. MASC's administrative costs were approximately $26,800 in 2005, $96,250 in 2006, $25,000 in

2007, and 16,900 in 2008.[58] These figures illustrate that administration costs were substantially higher the first year the program ran (2006).

The reason provided was that because the pilot project was new, there was a need for a higher level of verification to ensure landowners were adhering to the guidelines outlined in their contracts.[59] In 2006, approximately 82% of land enrolled was selected for verification with a very high compliance rate. There were only seven appeals raised by landowners mainly due to misunderstandings with regard to grazing and haying permits.[60] In 2007 and 2008, verification was conducted for 44% and 38% of the land enrolled respectively, with high compliance and no appeals by landowners.[61] Ian Wishart states,

> The most significant issues the pilot encountered were increased audit and administration costs when land was partially engaged in the production of public EG&S benefits and partially producing private benefits (used for grazing or haying). In these cases, project verifiers had to assess the level of private use on a case by case basis because it was assumed that land had the highest value when it was dedicated entirely to the provision of EG&S.[62]

Despite the higher expenditure on administration in 2006, the ability of MASC who had the capacity in terms of staff and land auditing experience, kept the total cost relatively low and overall totals of the project were regarded to be "cost-efficient" by stakeholders.[63] As Appendix M illustrates, MASC's direct administrative costs were substantially lower in the final two years of the pilot project. As such, the ability of an existing agricultural agency to administer this pilot helped in keeping administration expenses low in relation to the overall cost of the project.

***Land Services***

Figure 4.3 provides a breakdown of the total acres enrolled in each land service. The numbers clearly show that the majority of land enrolled was overwhelmingly under the

"Wetlands" land service category for each of the three years of the project. Lands designated as "Natural", "Riparian", and "Ecologically Sensitive" represented much lower enrolment numbers.

**Figure 4.3 Acres Enrolled by Service Category, 2006-2008** [64]

| Service | 2006 | 2007 | 2008 |
|---|---|---|---|
| **Wetlands** | 14269 | 13800.3 | 13954.1 |
| **Riparian** | 2426.6 | 2492.3 | 2668.3 |
| **Ecologically Sensitive** | 47 | 62.8 | 65.6 |
| **Natural** | 4198.3 | 4026.5 | 4228 |
| **Total Acres** | 20940 | 20381 | 20936 |

Source: Numbers compiled from Manitoba Agricultural Service Corporation, ALUS: An Ecological Goods and Services Research Project-Manitoba, Response to Application for Access to Information, May 30, 2013.

There are a couple of reasons that explain the land enrolment statistics. First, the short timeframe of the pilot project was not conducive to promoting long-term planning and conversion of land. The final evaluation report conducted by the George Morris Centre (GMC) explains that the trends demonstrated in land service enrolment were to be expected due to the "short term nature" of the project and the "uncertainty of continued funding beyond three years."[65] As such, GMC concludes that landowners may have been more reluctant to establish more permanent perennial cover on ecologically sensitive land (a necessary requirement) and commit to longer-term changes. Doug Wilcox, who works with MASC, argues that ALUS was primarily directed at maintenance of the ecological landscape and major changes (e.g. long-term commitment to converting land) were not a reasonable expectation given the timeframe and scope of the project.[66]

A second explanation for the acreage breakdown for land service enrolment is that land may have been applicable under another category. This is especially true with regard to lands classed as ecologically sensitive. Land was only eligible under this category if it did not fall within one of the other three land services. In addition, enrolment was capped at 20% for

landowners compared to 100% enrolment for the other land services. The flexibility that the ALUS project provided (i.e. some agricultural use) for wetland, riparian, and natural areas, may have been attractive to landowners. However, it should be noted that for the most part, acres enrolled were largely devoted to non-agricultural use. The project's payment structure (i.e. higher levels of payment for non-agricultural use) and landowners' resistance to avoid enrolling some types of land could help to further explain program data.[67] Once again, the statistical outcomes relate back to the short timeframe of the project. As such, if ALUS were to be more broadly implemented in the future, consideration would need to be given not only for extending the timeframe but also for ways to encourage higher levels of enrolment in other land services.

***Contracts, Acres, Compensation, and Average Payment***

Figure 4.4 provides a breakdown of contract numbers, acres enrolled, compensation paid to landowners, and average payments for each year of the three years of the pilot project. These numbers draw attention to important elements of the pilot project's implementation.

**Figure 4.4 Programming Totals and Average Payments, 2006-2008** [68]

| | **2006** | **2007** | **2008** |
|---|---|---|---|
| **Total Contracts** | 162 | 163 | 160 |
| **Total Acres Enrolled** | 20940 | 20381 | 20936 |
| **Total Compensation Paid** | $294211 | $285081.25 | $294784 |
| **Average Payment Per Contract** | $1816.12 | $1748.97 | $1842.40 |
| **Average Payment Per Acre** | $14.05 | $13.99 | $14.08 |

Source: Numbers compiled from Manitoba Agricultural Service Corporation, ALUS: An Ecological Goods and Services Research Project-Manitoba, Response to Application for Access to Information, May 30, 2013.

There were 162 contracts signed with a total of 168 landowners in the first year of the pilot project.[69] This number indicates that almost 75% of landowners in the RM of Blanshard participated.[70] For a pilot project based on the relatively new concept of EGS, the uptake in its

first year can be regarded as significant. Feedback from stakeholders indicates that strong uptake numbers were largely due to awareness of the project, involvement of local stakeholders (RM Council, LSRCD, landowners), established trust and familiarity with the administrative agent and the application process.[71] Figure 4.4 also illustrates that contract numbers remained steady throughout the course of the project with only minor fluctuations in participant numbers.[72]

The goal of the pilot project's administrators was to enrol approximately 15,000 acres in 2006 out of a possible 138,000 acres (approximately) in the area.[73] Figure 4.4 illustrates that the total acres enrolled in the ALUS project far exceeded expectations. Again, enrolment of land remained steady throughout the three-year program, averaging between 20,000 and 21,000 acres enrolled each year.[74] Moreover, due to consistent enrolment numbers over the three-year period, compensation was predictably stable. Total compensation for landowners had been originally estimated at $1.2 million for the three-year project.[75] However, over the course of the ALUS pilot project, total landowner compensation for land enrolled in ALUS amounted to approximately $879,495.[76] The lower expenditure could be a result of flexible land practices and high enrolment in the wetland service category compared to the other land services.

Average compensation paid per contract over the course of the project was approximately $1800.[77] By no means does this monetary amount represent a significant economic gain for landowners. However, through a modest payment structure, ALUS recognized and assigned value to land services provided by landowners. Moreover, the economic signals provided landowners a relatively small, but effective, incentive for incorporating alternative land services into their farming operations. As Roy Greer explains, "No one was going to get rich off the ALUS project but the recognition and reward it gave farmers for their stewardship and the economic value it placed on land services encouraged farmers to participate."[78] Mark Gill, a

farmer who participated in the pilot project, explained that for the area's farmers who wanted to improve their land, the dollar amount gave extra incentive to help make decisions regarding land management.[79] As such, with average dollar per acre equalling $14.04 over the three-year period, ALUS demonstrated that landowners responded to the economic signal and were willing to enrol land for a relatively small, but still reasonable, dollar amount compared to what could have possibly been gained by land conversion.

Roy Greer, who still resides on his farm in the RM of Blanshard, observes that since the end of the pilot project in 2008, land conversion, particularly wetland drainage, has increased to levels similar to what he perceived before the ALUS project.[80] This observation suggests that the economic signal the payment provided was an effective means of encouraging farmers to maintain wetlands. While payment levels would need to be periodically reviewed to ensure they adequately reflected land/rental value and were considerate of commodity prices, the relatively small cost of the compensating landowners for environmental stewardship through a program like ALUS may be significantly less compared to the long-term impacts of further wetland loss (e.g. flood mitigation, pollution, etc.). This topic is further explored in the following chapter.

The pilot project's numbers highlight important elements about the implementation of ALUS in Blanshard. Multiple funding sources enabled the three-year project despite some uncertainty for the final year of the program. The direct administrative costs were kept reasonably low and underline the ability of an existing agricultural agency to deliver the ALUS program model within a budget. The administrative duties of MASC also help to explain the high levels of landowner uptake from the start of the project. Familiarity with an application process similar to the Crop Insurance Program and the established relationship (e.g. expectations of predictable payment, local and technical support) between MASC and landowners, were key

determinants in encouraging landowners to participate. Moreover, expectations for landowner uptake and the number of acres enrolled were exceeded. While the overwhelming majority of land enrolled fell within the category of wetland services, the short timeframe of three-year project seems to be a reasonable explanation for this trend. If the ALUS program was to be implemented on a larger-scale, objectives related to length of the program, land type enrolment, and compensation levels would need to be reviewed in regards to their impact on program results.

## 4.4 Summary

As policymakers decide on a course of action to address a policy problem, the choice of policy instruments, and their implementation, largely determines how and if goals are met. Within Canada, regulation has most often been the policy tool of choice for policymakers with regards to the agricultural industry and the environment. However, as the previous chapters have argued, the policy environment was supportive for a new policy tool to be considered and adopted. The strong support for policy change by stakeholders, a feasible policy alternative presented to government, growing awareness, dialogue (domestic and international) on the concepts of agricultural multifunctionality and EGS, broader policy trends, and public concern over pollution, were just a few of the main factors that presented a window of opportunity for policy change. Therefore, when the Manitoba government was presented with ALUS, an incentive-based approach, they made the decision to implement a pilot project to test how a different policy tool could possibly better enable environmental stewardship on private land compared to more traditional instruments such as regulations or penalties.[81]

While government decisions reflect a multitude of considerations, there are four explanations that have been identified as key factors that contributed to the Manitoba

government's choice of policy tool. First, an incentive-based program would alleviate the economic pressures farmers were experiencing in the early 2000s. Farmers would be enabled through incentives to comply with changing standards and offering a monetary reward would encourage landowners not to convert natural capital into agricultural production. The Blanshard pilot would test an incentive program's ability to encourage landowners to "buy in" and make changes to their operations.[82]

Second, it was anticipated that farmers would respond positively to an incentive-program. As ineffective, and often poorly enforced, government regulations were not leading to the environmental stewardship practices desired, the Manitoba government believed that ALUS would possibly be a more effective policy tool to promote the adoption of BMPs.

Third, stakeholder groups were a key part of the decision-making process. The partnership of the KAP, DW, LSRCD, and the RM of Blanshard was instrumental in developing the Blanshard ALUS project proposal. The project complemented existing provincial goals, had the support of both conservation and agricultural groups, and was a feasible option to implement on a small scale to obtain information for the possibility of broader implementation of the programming model.

Fourth, policymakers chose an incentive policy approach because it would be one of many policy instruments already being utilized within a larger policy framework to work towards the goal of improved environmental stewardship in the province. As the carrot amongst the sticks, the ALUS pilot project in Blanshard would help policymakers draw conclusions about the merit of the program and whether providing a reward to landowners to go above regulatory standards would be effective.

Over a three-year period, ALUS demonstrated common ground could be found among various stakeholders and that they could work in a co-operatively in administering the program. The utilization of an existing agricultural agency to deliver ALUS that landowners were familiar with, not only capitalized on the trust already established between MASC and landowners but also enabled the project to be delivered at a reasonably low cost.

Multiple funding sources demonstrate the wide-ranging support that existed for testing the programming concept and suggest there is potential for drawing on additional funding sources, both public and private, for a broader implementation in the future. The uptake of ALUS by Blanshard landowners and the amount of acres enrolled, exceeded expectations and highlighted how willing landowners were to participating in an agri-environmental program that recognized and rewarded environmental stewardship. Payment levels and types of land enrolled produced a wealth of data to inform the development of future agri-environmental programming.

Blanshard's ALUS pilot project brought policy actors together to work towards common sustainability goals. Three levels of government, an agricultural interest group, conservation groups, and landowners, were able to administer and deliver a pilot project that produced many encouraging results for future programming consideration. The objectives of the ALUS pilot project were to test the feasibility of the program at the local level, to test the delivery model, to better understand how landowners would respond and what lands they would choose to enrol, and ultimately, provide information to policymakers to implement the programming concept at a broader level. Despite the fact that the pilot project produced many positive results, the ALUS program has not been renewed in Manitoba nor has it become a national program. In an attempt to better understand why, it is necessary to analyze the evaluation stage of the policymaking process.

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# Chapter Five

## Evaluation, a Changing Policy Environment, and a State of Transition

Evaluation allows policymakers to make judgements regarding efficiency, effectiveness, and appropriateness of the policy tool. Subsequently, policymakers decide whether or not to renew, terminate, and/or redesign. In 2008, the three-year Blanshard ALUS project ended and an evaluation was conducted. The first section of this chapter discusses the evaluation stage in the policymaking process and details the pilot project's evaluation.

The second section analyzes the four key objectives of the Blanshard ALUS project and provides a brief overview of whether it can be reasonably concluded that the project was a success. The aim of this analysis is to understand whether Manitoba's ALUS program was not renewed and/or implemented more broadly because of its inability to meet its main goals. The discussion incorporates data from the project's evaluation report and feedback from policy actors involved in the pilot.

Previous chapters of this dissertation have considered the roles of actors, institutions, and context that shaped the policy environment for the ALUS project. Kingdon's three streams theory of agenda-setting has been utilized in the case study analysis and has largely been supported. The problem stream, the policy stream, and the political stream coupled to create a window of opportunity for policy change to be enabled and a new programming tool for promoting agricultural sustainability to be adopted. However, when the Blanshard project ended and was not renewed and/or implemented more broadly, could it reasonably be concluded that the window for further change had closed? If so, why? The aim of third section is to examine the policy environment and offer an explanation.

The ALUS programming concept has been implemented in other jurisdictions across Canada since the Blanshard pilot project. At the time of writing, there are three ALUS projects in Alberta, one in Saskatchewan, four in Ontario, and a province-wide program in Prince Edward Island (PEI). With the exception of PEI, provincial governments are not directly involved in these initiatives. Local governments and conservation groups, particularly the Delta Waterfowl, have assumed leadership roles in establishing the ALUS projects. These projects have provided an opportunity for stakeholders to refine the ALUS programming model and tailor it to an individual community's specific needs. In May 2014, it was announced that the ALUS program is returning to Manitoba in the form of another project. While complete details of the new Manitoba ALUS project have yet to be finalized, the programming model has been slightly refined. In addition, the new project is being led and administered by stakeholders with no direct involvement from the federal or provincial government. The last section of this chapter provides a brief overview of Manitoba's new project and discusses what it potentially means for the future of ALUS in Canada.

## 5.1 The Purpose of Evaluation

Evaluation is often regarded to be the final stage of the policymaking process.[1] However, policymaking does not always flow in a systematic fashion and evaluation can take place at any stage in the life of a public policy. Evaluation can occur at early stages of program design, during policy implementation, or at the end of a set term once a project has been completed.

The Treasury Board of Canada explains that there are two primary types of evaluation: formative and summative.[2] Formative evaluations are done prior to, or at early stages of, policy development and are intended to provide necessary information to formulate the policy or program. Summative evaluations are done when a program is at, or near, completion and are

intended to determine whether to end, amend, or extend the policy. This dissertation will regard policy evaluation as a retrospective exercise in which past decisions and results of Manitoba's ALUS project are analyzed.

Mark, Henry, and Julnes explain that there are four key reasons to conduct an evaluation: assessment of merit and worth, improvement, oversight and compliance, and development of knowledge.[3] As part of the evaluation process, Althaus, Bridgman, and Glyn argue that there are three main questions to be answered: first, has the program achieved its objectives; second, was the program the best way to achieve policy objectives; and third, was the program relevant under current conditions?[4] In addition, the Treasury Board of Canada explains that evaluation supports accountability through public reporting on results, expenditure management, and policy and program improvement.[5]

Evaluation is a key part of the policy process as it allows for a review of how well a policy or program met its intended objectives. Moreover, as Sarah Michaels et. al state, "policy evaluation that generates feedback is critical to policy change and the evolution of policy instruments and ideas."[6] In addition, evaluation provides accountability regarding how public dollars are being spent and whether the public is receiving value for the expenditure. Performance measures can be an important part of providing evidence to support this goal.[7] While evaluation can be considered as being more holistic in scope, performance measurement is a complementary activity whereby program results are measured as a means to judge how or if objectives were met. Policy actors interpret the information that comes from performance measurement and draw conclusions regarding the success of the policy tool.

Multiple actors within the policy network will play important roles in the policy evaluation stage. Moreover, each actor or stakeholder group may make different assessments of

how the policy or program did or did not work. The media, politicians, civil servants, interest groups, program administrators, program recipients, and the public all engage in the evaluation of a policy or program by expressing support or opposition and by making suggestions and/or demands for change.[8] Both state and societal actors evaluate the policy, particularly the implementation phase, and draw conclusions as to whether the policy or program was adequate in addressing problems that necessitated policy development to begin with.[9] This exercise helps policymakers analyze and possibly reconsider the policy problem and the appropriateness of the tools to address it.

Based on the evaluation and stakeholder feedback, policymakers must then decide how the policy process will continue. For example, policymakers may continue the program or decide to make changes to build on efficiencies and eliminate identifiable problems. This action would return policymakers to the policy design stage and not only represent the "moment where the policy cycle ends but also restarts."[10] Conversely, policymakers may decide that the program failed to meet its goals and will choose to either terminate or fail to renew.

There are many challenges to establishing measurements and interpreting success or failure. Based on the goals of policy actors, project results can be interpreted many different ways. Paul G. Thomas argues, "There is no technical procedure available to rank and to combine different types of measures to reach a judgment about the relative worth of different policies and programs. Such judgments must ultimately be left to the political process."[11] Hessing et al. argue, "Policy evaluation, like activities that occur at the other stages of the policy cycle, is an inherently political activity."[12] Therefore, once an evaluation has been completed, policymakers' decisions will be influenced by a number of factors beyond the results of the evaluation.

Stuart Soroka argues that agenda-setting should be regarded as ongoing throughout the policymaking process.[13] Therefore, budgetary restraints, shifting political priorities, and levels of public support are just a few elements within the policy environment that shape policymakers' decisions. Soroka's argument helps to explain why a policy may not be renewed or more broadly adopted following the evaluation stage of the policymaking process, especially if the evaluation supports that a policy initiative was successful in meeting its objectives.

An independent body such as an audit office, an ombudsman, or a consulting firm will usually conduct formal evaluations of government policies and programs. The evaluating body will establish the scope of the evaluation, determine the assessment criteria, collect relevant data, and make an objective assessment and recommendations, which is then submitted to government.[14] Gregory Inwood argues, for evaluation studies to be credible, "they must have legitimacy in the eyes of the clients as well as observers of the process derived from impartiality, accuracy, and honesty."[15]

In 2007, Charles Grant and Janelle Mann from the Department of Agribusiness at the University of Manitoba conducted an evaluation of Blanshard's ALUS pilot project. This evaluation was followed by a report produced by the George Morris Centre at the University of Guelph, which is a national, independent, and not-for-profit economic research institute that focuses exclusively on the agricultural and food industry. The GMC states, "The ALUS Management Committee desired a third party independent peer review of the research to provide additional insights on the outcomes of the ALUS pilot project and recommendations for future programming."[16] To evaluate the effectiveness, efficiency, and appropriateness of the ALUS project, a number of methods were utilized for the initial evaluation and the GMC report including a literature review, surveys with participants and non-participants, and an analysis of

the pilot project's statistics.[17]

It is critical to note that the reports produced by Grant and Mann and the GMC were only based on the first two years of the pilot project and did not take the third year of the Blanshard project into account. As the Blanshard project was partially dependent on federal funding, the uncertainty of whether funding support would be received for the final year led program administrators to commence the evaluation process after the second year. Blanshard's ALUS project received federal funding under the Agricultural Policy Framework. In 2008, the APF was being replaced with a new policy framework, Growing Forward, and details of the policies and funding commitments had not been finalized.[18] Blanshard's project administrators believed that by conducting an early evaluation, adjustments could be made to the ALUS program to enhance the prospects for continued funding.[19] Federal funds were received for the final year of the pilot project but an evaluation that assessed all three years has never been conducted.

During data collection for this research, third year programming statistics were unavailable in any report or online source from any of the project's partners. The Manitoba government only released the Blanshard project's programming results after a request was made under the *Freedom of Information Act*. Therefore, the previous chapter and the analysis presented in the following section incorporate third year programming statistics that have been made available since 2008 to analyze the Blanshard project in its entirety.

During the interviews for this dissertation, a common sentiment among the interviewees was that the evaluation of the ALUS project could have gone further in its analysis and that an evaluation of the entire project should have been conducted.[20] Ian Wishart expressed the view that greater consultation and detailed feedback of the project's partners would have been valuable to the final report analyzing the ALUS pilot.[21] Undoubtedly, this data would have been

subjective but it would have been particularly useful in better understanding the motivation of landowners to participate, how the diverse groups of stakeholders communicated and worked together, and what elements of the program stakeholders were satisfied or dissatisfied with.

From the discussion above, there are a few crucial points to be made about policy evaluation and the Blanshard project. First, evaluation is an important part of policymaking as it can provide feedback, learning, accountability, and subsequent improvement of policy tools. Second, it is ultimately a political decision that determines whether or not to continue a policy or program, modify it, or terminate it. Third, there are a multitude of factors within the policymaking environment that influence government decisions beyond the findings of an evaluation. Fourth, the evaluation of the Blanshard pilot was arguably the weakest aspect of the project. Unpredictable funding for the final year of the project forced a premature evaluation and an analysis of how the project was/was not able to meet its objectives never has been completed. Therefore, in an attempt to better understand why ALUS failed to be renewed by the Manitoba government, it is important to analyze how the Blanshard project met its intended goals.

## 5.2 Objectives of the Blanshard ALUS Project

In policy evaluation, distinctions can be made between aims, objectives, outcomes, and outputs.[22] Aims are changes that policy actors hope to achieve. In this policy study, agricultural sustainability can be considered the overarching aim. Objectives are more specific goals and are linked to methods by which aims are achieved. The Blanshard ALUS pilot project had four objectives: test the feasibility of the ALUS programming concept; test the delivery model; determine landowners' willingness to participate in ALUS; and gather information to implement ALUS as part of a national conservation plan.[23] Outcomes are changes, benefits, learning, or

other effects that are a result of the policy action whereas quantifiable measurements are classified as outputs.

This section provides an analysis of the first three goals of the project, as the information gathered essentially meets the fourth objective. The goal of this section is to build off of the statistical analysis presented in the latter part of chapter four. Examining outcomes, outputs, and highlighting elements of the GMC evaluation and stakeholder feedback, enables a more thorough understanding of how the Blanshard ALUS project was or was not able to meet its objectives.

***Objective #1—Test the Feasibility of the ALUS Programming Concept***

The first objective of the Blanshard pilot project was to test the feasibility of the ALUS programming concept at the local level.[24] Implementing an ALUS program in the RM of Blanshard allowed policymakers to take account of strengths and weaknesses through a small-scale project before a broader implementation was considered. Project partners anticipated that the pilot project would not only produce observable economic, social, and environmental benefits but also provide an indication of the advantages and disadvantages of administering the program within a political boundary as opposed to an ecological boundary. Ian Wishart stated, "The combination of ideal geographic and socio-economic elements meant Blanshard was ideal to test and refine project management, implementation procedures, and to measure real environmental benefits."[25]

A common criticism of public policy is that goals are not stated clearly enough to determine what is being achieved.[26] While the pilot project's objectives were clearly stated, set targets and performance measures that could have been used to gauge economic and environmental benefits were not. Despite the 2005 proposal stating that the Blanshard project would be able "to quantify and qualify the social, economic and environmental benefits and/or

impacts", there was a lack of measurements taken during the course of the project.[27] For example, the GMC evaluation explained that as no measurements were taken to "assess actual environmental changes … it is not possible to concretely determine actual environmental impacts."[28] This is not to say that observable economic, social, and environmental benefits were not produced by Blanshard's ALUS pilot project. However, it does prompt the question of what challenges exist to performance measurement and how important the ability to provide measurable results is, or should be, to policy decision-making.

Environmental impact assessment requires a long-term scope. Thus, the foremost barrier to measuring environmental benefits was the timeframe of the pilot project. Within a three-year period, the ability to measure environmental indicators such as water quality and levels of biodiversity would have been limited. The pilot project's manager, Steve Hamm, explained there were also limitations in resources to produce measurements in such areas as water quality.[29] The GMC's report states, "funding for the water quality monitoring was not included within the pilot project's budget" and given the short timeframe, "it would have been difficult to demonstrate that changes in water quality were attributable to the pilot project."[30] However, early measurements at a minimum would have provided valuable baseline data for long-term assessment.

The absence of funding for environmental monitoring in the budget suggests that policy actors did not make it a priority to produce quantitative data to measure the environmental impact regardless of the foreseeable challenges. Roy Greer explains, other objectives such as testing the delivery model and understanding how farmers would respond were higher priorities for the pilot project.[31] Greer argues that the main reason for this focus was the short timeframe of the project and the need to set reasonable expectations.[32]

While the Blanshard pilot project was limited in its ability to produce empirical measurements to gauge the impact of implementing ALUS, there were many outcomes and outputs that were produced or that could be reasonably foreseen if the program had been expanded.

The RM of Blanshard received economic benefits from the ALUS project. With $879,495 alone in landowner compensation for land services, the GMC evaluation stated that local businesses would undoubtedly benefit from increased economic activity.[33] Furthermore, the GMC concluded that with respect to financial security, 79% of participating landowners expressed that the payments received for the provision of EGS "would make their farms more financially sustainable."[34] As noted in the previous chapter, the average compensation per contract amounted to approximately $1800.[35] Therefore, the relatively small financial reward provided an incentive to participate and helped to relieve some of the financial pressure on landowners to convert natural capital into farmland.

Economic indicators are easier to measure than environmental benefits especially in a short period of time. Jonathan Walters argues that the ultimate goal of performance measurement is to "refocus government in management and budgeting along with program and policy development on … bottom line results."[36] However, environmental measurements require a long-term scope and cannot be produced in the same way as quantifiable economic data. Robert Sopuck, who was involved with DW during the Blanshard project and is currently a Member of Parliament, argues that policymakers need to stop looking for ways to value EGS programs based largely on performance measures.[37] Sopuck suggests that especially given the short nature of projects like Blanshard, policymakers should focus on making connections between producer

uptake, acres enrolled, landowner feedback, and types of land enrolled, and then make common sense conclusions about what type of long-term impact could result.[38]

The ALUS project sought to promote agricultural sustainability by promoting land stewardship practices, which included maintaining and protecting wetlands, riparian areas along waterways, natural areas like grasses and brush, and ecologically sensitive land prone to erosion, salinity, and other damage. As detailed in the previous chapter, expectations of enrolment were exceeded as over 20,000 acres of land in the RM of Blanshard was enrolled each of the three years the project ran.[39] Data from the second year survey indicates that 53% of Blanshard landowners participating in ALUS, believed their provision of EGS increased "moderately or strongly" as a result of their land enrolment.[40] An additional 37% were neutral in their response and only 10% indicated that they felt their provision of EGS had not increased.[41] Furthermore, the majority of respondents identified "water quality, conservation of wildlife/wildlife habitats, and less erosion" as the three greatest benefits provided by EGS programming.[42]

The GMC reports that prior to the ALUS project, 50% of the RM's landowners stated they had participated in other conservation or environmental programs.[43] Therefore, with almost 75% of landowners in the RM voluntarily enrolled in the ALUS project, the GMC concludes that ALUS was "an effective approach to achieving maintenance, enhancement, and valuation of EG&S" and that "The high levels of participation in the project will likely create environmental benefits for society."[44] Furthermore, there is an abundance of existing research that provides evidence to support that the land services listed above would produce long-term environmental benefits not only for the RM but also well beyond its boundaries.[45]

Governments must be accountable regarding how public dollars are spent. Policymakers desire measurable inputs and outputs from policies and programs that can justify public spending

especially with regard to new public expenditures.[46] In 2008, the Office of the Auditor General (OAG) argued that the Department of Agriculture and Agri-Food Canada's ability to monitor and report on the results of its environmental programs revealed "weaknesses in the Department's performance measurement strategy."[47] The Auditor General stated,

> Senior management cannot be certain whether programs are achieving their intended results and where improvements are needed. The Department has spent about $370 million on environmental projects, but lacks sufficient data to demonstrate that action at the farm level has led to positive environmental change.[48]

However, the OAG also noted that the "beneficial management practices funded under the Department's environment programs are supported by science that indicates that these activities will likely lead to positive environmental change."[49]

As Claudia Schmidt et al. explain,

> Measuring specific outcomes and adapting programming accordingly is a major challenge for EG&S programs, and the need for such research oriented, adaptive management becomes much more important as the scale of the EG&S program extends in space and time, such as to the scale of a national program.

Schmidt argues that policymakers must invest in research and technology that could improve the measurement of environmental indicators such as reduced nutrients in surface or ground water, improvement in quality and quantity of wetland types, diversity and levels of biodiversity, and reduction of soil and wind erosion.[50] In addition, stakeholders interviewed for this dissertation strongly voiced that a commitment must be made by government leaders to implement longer-term programs to be able to produce better measurable results to effectively draw conclusions regarding economic, social, and environmental benefits.[51] Roy Greer argues that a ten-year program would encourage a greater variety of land services enrolled and produce observable benefits for government, the public, and farmers.[52]

As part of understanding how feasible the ALUS project would be at the local level, the Blanshard ALUS project was implemented within a political rather than an ecological boundary, such as a watershed. This choice presented both advantages and disadvantages. The GMC report explains that the involvement of the local RM was a key reason for the high level of landowner support for participating in the program.[53] The main disadvantage that the GMC suggests is that implementing the program along an ecological boundary might allow for better measurements and/or targeting specific lands for land services.[54] The support of the local RM, not only in promoting the project and program concept but also in making a financial contribution to it, played an important role in implementation. Locally elected representatives demonstrated their ability to work co-operatively with stakeholder groups, landowners, and other levels of government throughout the course of the pilot project. Ian Wishart stated, the RM's

> funding showed the advantage of projects based on political boundaries as opposed to ecological boundaries such as watersheds. While watersheds may be the most significant ecological units, human affairs are not constructed around watersheds; they are constructed on political boundaries. Municipal councils can speak with authority on behalf of their constituents and in turn are locally accountable for the expenditure of tax dollars.[55]

This highlights the impact that institutions have on how policy problems are conceptualized and how action is taken on public policy issues. Territorial approaches may not make sense from a functional problem solving perspective but they are ingrained in the political culture and the political process. Moreover, while ecological boundaries may help to target specific pollution sources or ecological sensitive lands in a region, expanding the program across several RMs, provincially, or as part of a national conservation plan would address this challenge.

The ALUS project did not produce detailed measurements of environmental change in the RM of Blanshard. The short timeframe of the project and the lack of resources devoted towards measurement resulted in a lack of concrete numbers that would give an indication of

baseline data and changes in environmental quality. Of course, it would have been difficult to isolate and accurately judge the extent to which the ALUS project was responsible for the measurements taken. However, analysis of the pilot project results indicate that well-researched environmental stewardship practices increased during the three-year period and that the ALUS project provided at least part of the motivation for landowners chose not to convert natural capital. Testing the ALUS program at the local level also provided information regarding the pros and cons of implementing ALUS along political rather than ecological boundaries.

***Objective #2—Test the Delivery Model***

The second main objective of the Blanshard ALUS pilot project was to test the delivery model.[56] Policy actors wanted to better understand the efficiency of various features of the ALUS project including contracts and flexibility in land management practices, in addition to advantages and disadvantages of administering it through an existing agricultural agency (i.e. MASC) and involving stakeholders in administrative roles.

The Manitoba Agricultural Service Corporation had a long-standing role in administering agricultural programming, particularly Crop Insurance. The established trust that farmers had with MASC and the familiarity with the existing administrative procedures including application forms, local assistance when needed, auditing processes, and payment timelines, all contributed to the comfort level that farmers felt participating in the project. Doug Wilcox, manager of program development at MASC explained,

> Generally, I think everyone was happy with the program. We think the administration worked very well. We [MASC] already had a very strong field presence with our regional office and we also worked closely with the local conservation district in terms of signing up producers (and assessing the producers' ecological resources). I think producers felt the whole process worked out pretty well.[57]

The stakeholder feedback also confirmed the positive response of landowners to the project's administration. The GMC report states,

> The responses of landowners to the surveys indicated satisfaction with the administration of the pilot by MASC. A strong majority of landowners rated the orthophoto measurement, application completion, verification, and payment services provided by MASC favourably or very favourably in both years.[58]

The pilot project demonstrated that an existing agricultural agency was capable of not only administrating a land conservation project like ALUS but also that there were many benefits.[59] The GIS technology and information that MASC had previously collected for the Crop Insurance Program provided valuable baseline data for the project. Wilcox explains,

> For every quarter section registered, we knew how many acres of wetlands they had, how many acres of riparian area they had, how many acres of grasslands and so on. … At the end of the year, the ecological resources would be reassessed to ensure that they hadn't been altered, cultivated, or reduced in size. In some cases, ground audits were conducted to ensure that proper management practices had been followed.[60]

Ian Wishart explains, "Significant efficiencies in the delivery of conservation programs can be achieved through the use of existing agricultural agencies."[61] For example, the capacity of MASC and the experience of its employees to utilize data for applications, verify land enrolled, and audit the program, demonstrates an efficient and cost-effective use of the project's resources. Wishart argues,

> Administrative costs for traditional conservation programs are high. The Manitoba ALUS project proved that significant financial efficiencies could be achieved by utilizing existing agricultural agencies to administer landscape conservation programs.[62]

Administrative costs for the Blanshard pilot were kept to a minimum due to the fact that MASC had much of the infrastructure, staff, baseline data, and experience in place to efficiently and effectively deliver the ALUS project.

While MASC was primarily in charge of delivering the ALUS pilot, there were several stakeholders who partnered to implement the project. As detailed in the previous chapter, three levels of government, conservation organizations (local and international), crown corporations, and the Keystone Agricultural Producers, all served various roles (e.g. committees, funding). An AAFC performance management report explained, "The proposed administration organization is non-traditional, and the evaluation of its ability to deliver this program is a key objective."[63] Therefore, the Blanshard pilot was used to better understand how a partnership among these groups, both government and non-government, to administer an EGS program would work. The AAFC report states that a key outcome of the pilot project would be to better understand the effectiveness of the partnership among policy actors, what is required to facilitate co-operation, whether objectives of stakeholders could be achieved, and to evaluate the inclusion of non-traditional partners including funding from outside of Canada.[64]

What is meant by "partnership effectiveness" is never clearly described by AAFC or any of the other project's partners. However, it would be fair to delineate from the comments, or lack thereof, from stakeholders and from the project's results that in fact the partnership among the multiple groups could reasonably be described as effective. For the most part, the administration of the project ran smoothly and the majority of stakeholders involved regarded the delivery of ALUS as largely positive. During interviews conducted for this dissertation, communication among partners during the various stages of the policy process was repeatedly noted as being one of the key reasons for why the project was deemed a success.[65]

Co-operation among partners was also facilitated by open communication. There was recognition among the groups involved that each could make a meaningful contribution during policy development and implementation, for example, through technical expertise or local

knowledge. Roy Greer explains that there was a level of respect among stakeholders and trust that they all would be heard.[66] Furthermore, the communication and contribution of all groups involved in the design and delivery of the Blanshard ALUS project could also be cited as one of the key reasons why common ground was found among stakeholders. For example, the willingness of an agricultural group to encourage and accept a partnership with conservation groups to promote an EGS program was significant in gaining the support not only of three levels of government but also the landowners who participated.

There were two main problems identified with respect to involving multiple stakeholders in the administration of the pilot project: communication during the evaluation and funding delays. Stakeholders explained that poor communication during the evaluation process was one of the only issues that could have been improved.[67] In addition, stakeholders explained that the uncertainty regarding federal funding at the beginning of the pilot and for the third year of the project caused a lot of frustration.[68] As the funding received from the federal government was essential to the project's administration, the unpredictability of third-year funding disrupted the project's implementation in its final year. Of course, the federal funding did eventually come though and the project continued. However, the contributions made by non-traditional sources (e.g. local government and NGOs) to the ALUS pilot provided a stable and predictable funding contribution. As argued in the previous chapter, the funding from non-traditional sources could be a viable option to help support future conservation programming especially given the limited budgets of governments.

Overall, the design and administration of the Blanshard pilot proved to be beneficial. Three levels of government, conservation groups, and the Keystone Agricultural Producers demonstrated that a co-operative relationship could effectively deliver the ALUS program and

that each group could make a valuable contribution in delivering the program. Communication among the project's partners and landowners was key to implementing the ALUS project and while there were some issues, particularly with regard to funding, the three-year pilot was completed.

In addition to gaining knowledge regarding how the program could be effectively administered by MASC along with the inclusion of stakeholders, key features of the project were assessed including the overall ease of participating, flexible land use, and length of contract commitment. These features of the ALUS project contributed to positive feedback from participating landowners.

Ian Wishart argues that one of the advantages of ALUS is that it is farmer driven and highly transparent. Wishart states, "Farmers don't want a highly complicated, difficult program. They want to keep it as simple as possible. And the public wants to know that their money is being spent in a proper way."[69] Robert Sopuck explains that many agricultural programs have become extremely complex but with ALUS it was "easy for producers" to sign up and participate in the project.[70] In addition, the local project manager was able to "interact very positively with producers" and offer information and assistance.[71] Project information was simple and straightforward and as previously mentioned, producers were familiar with the application and verification process because of their experience with the Crop Insurance Program.

The ALUS pilot offered some flexibility regarding eligible land use practices. Haying and livestock grazing were acceptable but at a reduced payment level as it was assumed that these practices reduced the environmental benefit. However, Wishart suggests that payment models may need to be revised to more accurately reflect the public value of EGS, regardless of the private benefit to the producer.[72] In addition, GMC explains that adjusting the pricing scheme

for a future ALUS program may be necessary for three reasons: to achieve a more optimal allocation of the four EGS services, respond to high commodity prices, and to protect small wetlands.[73] The GMC suggests that the "current scheme may not provide sufficient incentives for landowners."[74]

Feedback from landowners indicates that optimal contract length would range from three to five years.[75] GMC writes that it is important, both ecologically and from an administration standpoint, eligible land is committed for longer periods of time.[76] GMC suggests that mechanisms such as signing bonuses or higher incentive bonuses for longer-term contracts should be considered.[77] Roy Greer suggests that a ten-year programming commitment would be able to provide a better understanding of the many positive benefits that EGS programs are capable of. Greer adds that farmers may also continue to maintain natural capital and adopt BMPs on their own once they have seen the long-term private benefits of improved environmental management.[78]

***Objective #3—Determine Landowners Response to ALUS***

The third objective of the Blanshard ALUS project was to provide information regarding landowners' willingness to participate in an EGS program, what land (type and acreage) they would enrol, their compliance rates, and their overall impressions of the programming initiative.[79] Many of the project's statistics, detailed in the previous chapter, indicate the Blanshard project had many positive results: almost 75% of landowners in the RM of Blanshard participated; the total of amount of acres far exceeded expectations and most were wetland acres; enrolment remained steady throughout the three-year period; and compliance rates were high.[80] Therefore, the following discussion builds off the statistical analysis and focuses on why

landowners chose to participate in a new program and what some of the feedback has been since the end of the pilot project.

In addition to the established trust and familiarity with the administrative agent and the application process, strong uptake numbers can be linked to project awareness, involvement of local stakeholders, and the incentive-based programming approach.[81] Prior to the approval of the Blanshard pilot's proposal, KAP and DW presented the ALUS programming concept and had garnered widespread support within and outside Manitoba. With support in the RM prior to the implementation of the project, landowner awareness had been established.[82] In addition, once the project had government approval, the GMC report notes that "strong commitment to educate landowners" about a new programming initiative and "extensive communication efforts were undertaken", which included "presentations at public meetings, informational letters, newspaper articles and direct human contact."[83] As such, GMC concludes, "Landowners in Blanshard were well informed about the ALUS pilot and EG&S in general, indicating that the pilot project was communicated successfully to landowners."[84]

The involvement of local stakeholders including the local government and landowners also contributed to the high rate of participation.[85] Roy Greer explained that the local government and farmers felt like they were being heard and that their knowledge of the area was respected amongst the other project partners.[86] During an interview, Ian Wishart supported Greer's argument and added that farmers felt empowered and respected by being involved in the policy process from the beginning.[87] In addition, Steve Hamm, Blanshard project's manager, explained that farmers in the RM also encouraged each other to participate.[88] The community support translated to high and steady enrolment numbers throughout the three-year project.

A third reason that landowners were eager to participate is that the incentive-based policy tool fit within the culture of the agricultural industry.[89] Discussion presented in the first two chapters of this dissertation underlined that Canadian agriculture is an economically driven industry and that farmers largely respond to market signals. The constant economic pressures faced by farmers are reflected in land management practices. Calvin Daniels, an agriculture journalist, explains,

> When grain and oilseed prices are high, as they are today, farmers reasonably want to grow the maximum bushels, and so they seek to claim every acre possible. In times where there are low prices it comes down to maximizing bushels to maximize returns, and that again means wanting every acre possible for production.[90]

This dissertation has argued that the pressure to constantly produce more has led to conversion of natural capital, which has created environmental concerns. As Ian Wishart argues, "If the problem is that the market does not provide signals to conserve, provide new signals."[91] Kerry Holderness, a pioneering member of Saskatchewan's ALUS task force states,

> I travel throughout [the Prairies] ... and I see shelterbelts and wetlands disappearing because farmers don't want to go around them. Producers right now are out to maximize profits and unless we offer some monetary incentives, I think you're going to see more and more wetlands being drained and more shelterbelts disappearing.[92]

Mark Gill, who farms 4100 acres in the Blanshard area, puts forth a similar explanation. Gill explains, "I think it's a good program because for me, as a young farmer, I want to be able to improve my land. For people who are weighing what to do with their land, this gives farmers that extra incentive to help make the decision."[93]

A 2006 Canada-wide survey conducted by the Environics Research Group suggests that farmers have an awareness of their environmental impact, they feel a personal responsibility to protect the environment, and are committed to decreasing their environmental impact.[94] However, the survey concluded that the same farmers who are intent on improving their

environmental stewardship, regard financial impediments as the primary roadblock.[95] Journalist Kevin Hursh argues, "Proper rules and regulations are necessary. Well-designed support programs can help promote environmental stewardship. As well, education and awareness are important. But at the end of the day, new farming practices have to be economically feasible."[96]

The GMC's report details their survey data and lists the top three reasons provided by landowners for participating in the ALUS project: financial, land/wildlife conservation, and the environment.[97] Given that average compensation was relatively small ($1800/landowner), it is likely that landowner's decisions were a product of many considerations. There are a couple of plausible explanations for why landowners participated in ALUS and chose not to convert land. First, landowners participated for reasons beyond pure financial gains. Roy Greer argues that an incentive-based program designed to enhance EGS is "important not only for the dollars but also the recognition and the appreciation that farmers feel when their services are valued."[98] The second explanation is that in some cases landowners may have enrolled land that they would not have converted anyways. However, the GMC report states that continuing to pay for EGS on lands that may have no agricultural value "may be critical to maintaining these lands in an unconverted state."[99] In 2013, Roy Greer explained that since the ALUS pilot ended in 2008, wetland drainage and land clearing have both increased, while drainage laws have not been enforced in the area.[100] This suggests that the ALUS project was successful in encouraging farmers to implement land stewardship practices that provided EGS rather than choose to convert natural land into production.

Pilot projects provide valuable information to develop and refine policy initiatives by essentially working out the glitches. Schmidt argues that EGS projects "allow for experimentation and learning from alternative approaches, which is important given the complex

nature of the subject matter."[101] Testing the feasibility of the programming concept at the local level, testing the delivery model, and better understanding how landowners would respond to the project, was intended to inform policymakers for a future and larger implementation of ALUS as part of a national conservation plan.

Over three years, it can be reasonably argued that Blanshard met its intended objectives and data collected supported ALUS' potential in working towards agri-environmental goals. Therefore, if ALUS demonstrated that it had merit as a policy tool, other factors in the policy environment were responsible for governments' lack of renewal and broader implementation after 2008.

## 5.3 Policy Window Closed or Transitioning to a New Approach?

Earlier chapters of this dissertation utilized John Kingdon's agenda-setting theory to explain how a window of opportunity for policy change opened for Blanshard's ALUS project. As such, when ALUS failed to be renewed or more broadly implemented by Manitoba's government or as part of a national conservation plan, it suggests that the window may have closed to further change. This section details Kingdon's theory about why policy windows close, analyzes factors within the policy environment that may have changed, and discusses whether or not the policy window is best described to be closed. This section ends with a brief overview of the new ALUS project that was announced in May 2014 and explains why the program is returning to Manitoba and ultimately what it could mean for the future of the ALUS program.

Kingdon's agenda-setting theory suggests that the process between initial problem recognition and the policy window opening for change can be lengthy and complex. In contrast, Kingdon argues that the policy window can close very quickly and can be attributed to policy entrepreneurs' failure to seize an opportunity, lack of an available alternative, a change of

government, or a sense among policymakers that the crisis has passed and the problem has been resolved.[102]

Kingdon's argument offers a plausible explanation for why governments may not adopt a policy or program at any earlier stage of the policymaking process. However, the theory provides little insight into why the window may close following the conclusion of a program. This dissertation has argued that policy entrepreneurs helped create the window of opportunity for policy change by pushing their concerns onto the government's agenda and presenting a viable policy alternative. Therefore, based on Kingdon's theory, the only elements that may explain why the Manitoba government never renewed the ALUS program are that the government changed or that policy actors regarded the problem to have been resolved. The following discussion examines what factors may have contributed to a policy environment that was resistant to further change. However, what is important to note here is while multiple factors feed into enabling a window of opportunity for change to occur, further change is largely dependent on political decision-making.

Soroka's argument that agenda-setting occurs at every stage of the policymaking process lends itself well to understanding the complexity of factors that shape political decisions. As such, a positive evaluation of a program, as in the case of Blanshard's ALUS project, is not enough for policymakers to renew or broaden the program. This is not to say that the information gathered from an evaluation is not valuable but rather, it is only one element that influences policy action.

Policymaking is complex and it is impossible to isolate any single factor to explain why a particular policy action is or is not taken. At any given time, the policymaking environment encapsulates a variety of influences that shape policy action. Intergovernmental relations, current

issues or crises, public opinion, interest group activity, and budgetary capacity are some of the many factors that combine to shape political priorities and government decision-making. Moreover, these considerations are in a constant state of flux. To better understand the policy environment after the Blanshard project concluded it is important to provide a brief analysis. It should be noted that this discussion does not claim to be all-inclusive but rather, is intended to highlight the ever-changing nature of the policymaking environment and provide insight into why the Manitoba government has not renewed ALUS.

When asked why the provincial government never renewed or expanded ALUS, former Agriculture Minister, Rosann Wowchuk responded, "The Blanshard ALUS pilot project was only ever intended to be a three-year program to collect information."[103] Jim Fisher, Delta Waterfowl's Director of Conservation Policy, argues that this was one of the weaknesses of the Blanshard pilot.[104] Fisher explains that since Blanshard, projects in other provinces have been designed to be "ongoing".[105] However, Ian Wishart, among many other stakeholders of the Blanshard project, believed that after the pilot concluded, broader implementation would take place especially given the positive feedback it received.[106] In August 2008, Minister Wowchuk stated,

> It's [ALUS] a farmer-friendly approach and has created a model that all provinces could implement for agricultural conservation programs. … ALUS takes an innovative program that allows each farmer or landowner to customize their conservation activities with their individual land and water availability. … The results of this initiative could have a major impact on how we address and maintain the environmentally sustainable agricultural use of our lands in Manitoba and across Canada.[107]

In December 2009, Wishart expressed frustration with the lack of government action. He stated, "So far there's no word on whether the government will fund future ALUS-type projects, much less support expanded programs."[108] Wishart explained that a provincial working group

was assembled to "keep ALUS alive by developing a proposal for a province-wide program" in Manitoba.[109] The committee consisted of KAP, DW, cattle producers, and the provincial departments of Agriculture, Conservation, and Water Stewardship. Wishart stated, "We've definitely gone from highly public to working in the back rooms. But I think we're getting real progress now. We're not arguing about the concept. What we're arguing about is the details of a program. That's a step forward in my estimation."[110] However, no province-wide program proposal materialized and no provincial program was ever adopted. In 2014, Wishart explained that the working group, "met infrequently and never had a clear mandate … province was only nominally supportive, concept was very popular with farmers and environmental groups, so they wanted to be seen "implementing" but really didn't want to spend the money."[111]

The lack of commitment from the federal and provincial governments to broaden Manitoba's ALUS program met with little public resistance beyond that of the project's stakeholders. Despite the positive evaluation and stakeholder feedback, there was a lack of media and public attention when ALUS failed to be renewed. As mentioned in an earlier chapter, besides rural and agricultural newspapers there were only a handful of urban news articles that mentioned the ALUS project prior to its implementation. Thus, while most people in Manitoba never knew the Blanshard project existed, fewer realized it had concluded, that it demonstrated potential for addressing broader environmental concerns, and that government was resistant to implement it again. This highlights the fact that agriculture, and rural policies in general, receive little attention from the urban media.

ALUS was conceived to be a program that would generate wider benefits to both urban and rural Manitoba. However, while there may be public attention to environmental issues in Manitoba such as flooding, pollution in Lake Winnipeg, and the impact of intensive livestock

production, there is arguably very little awareness about the actions that governments are taking to address those issues. In May 2013, Roy Greer explained,

> Sometimes there seems to be a lack of political clout for rural people. Educating the cities is very important moving forward to better inform the population of the roles of farmers and the importance of programming like ALUS and the benefits that it could generate.[112]

With the lack of public attention towards ALUS following the end of the Blanshard project, the government was not under pressure to renew the program or even to offer a public explanation of its failure to do so.

Roger Gibbins argues, "Budgets can often be the foe of good ideas."[113] This is especially true in less affluent provinces like Manitoba. Journalist Ron Friesen argues that ALUS was largely abandoned in Manitoba due to "budgetary shortfall" and the fact that discussion about renewing the program coincided with the global economic downturn beginning in 2008.[114] In 2014, Ian Wishart, who sits as a Member of Manitoba's Official Opposition and Progressive Conservative Party, argued, "budgets are at least 80% of the problem when it comes to expanding the program in Manitoba" and the federal and provincial governments have been resistant to developing a larger-scale program.[115]

As a "have less" province, Manitoba depended on federal funds for the Blanshard pilot and any possible province-wide ALUS program would definitely require federal support. However, Robert Sopuck, who is an MP for the federal Conservative government, argues that shifting political priorities at the provincial level, not budgetary issues, are to blame.[116] Sopuck cites the example of Prince Edward Island who chose to use federal funding received under the Growing Forward II program to continue their province-wide ALUS program.[117] Sopuck argues that in Manitoba "there is always money that could be redirected.[118] For example, "directing public dollars towards flood mitigation instead of clean up costs."[119] Sopuck explains that an

EGS program like ALUS could be an important part of the solution to reducing flooding and improving water quality; two major and ongoing issues in Manitoba.[120] Sopuck states,

> It's a model for delivering from agricultural land things like flood control, which is on everybody's mind, biodiversity, aquifer recharge, and so on … We need to start providing incentives to producers. All society would provide the incentives and all society would benefit. The potential is simply enormous. [121]

The budget for a province-wide ALUS program in Manitoba would cost an estimated $30 million.[122] However, when compared to the overall cost of flooding damage in recent years alone, the dollar amount is significantly higher.[123] For example, the 2011 flood cost over a billion dollars, and in 2014, flood damage has been projected to be over $200 million with an additional $1 billion in losses to the farming economy as 3.5 million acres of farmland were impacted.[124] As such, stakeholders have argued that while the potential cost of ALUS may seem large, it is an important and necessary tool within a larger strategy for flood mitigation and will save the province money in the long-term. Ian Wishart and Roy Greer explain that Manitoba must invest in programs that help increase flood mitigation efforts as opposed to focusing the bulk of their efforts on constantly repairing the damage caused by ecological degradation.[125]

In 2007, Melanie Dubois, senior riparian and biodiversity specialist with Agriculture and Agri-Food's PFRA, stated, "Most riparian areas are just flood plains, but they serve a very distinct purpose. When water floods the river, the riparian area slows down the water, holds onto the riverbank and stores the energy and water."[126] Subsequently, wetlands can serve important roles in flood mitigation and pollution reduction. Sopuck explains that in a province like Manitoba, where large-scale flooding occurs almost annually, policymakers have to quit "dithering" about whether the ALUS program is necessary or valuable.[127] Robert Sandford, Director of the Western Watersheds Research Collaborative, explains that water stewardship issues are creating major economic impacts and the situation is only going to get worse unless

governments take action to preserve wetlands and support restoration of agricultural systems.[128] Sandford argues,

> The increased frequency and intensity of spring floods is becoming a serious problem. The floods of 2011 cost the province of Manitoba a billion dollars. Flood damages in North Dakota and Saskatchewan were in the same range. The situation in the Central Great Plains region is so serious that it is no longer described simply as an environmental problem. The situation is now seen as a major threat to the economic future of the entire region. … The risk economically is that the people of the region will not be able to afford both things: dealing with recurring disasters and addressing their causes. … the costs of ongoing flood damage may reach a magnitude that could easily bankrupt Manitoba.[129]

When there are limits on financial and administrative capacity, government leaders make strategic decisions regarding how public funds are directed. How money is allocated or what spending is reduced or redirected reflects a government's priorities and larger goals. Spending and policy tool choices reveal how a government believes it can best address public issues. In email correspondence, Colleen Wilson, a representative of MAFRD, explained why the Manitoba government has not adopted a province-wide ALUS program. Below are excerpts from MAFRD's response.

> The ALUS concept represents one of many delivery mechanisms available for EG&S programming. …. Manitoba reflects upon ALUS as a successful learning experience on the importance of local involvement in EG&S program development. … The Manitoba Government is interested in longer term permanent conservation agreements or multi-year beneficial management practice type contracts and in using Market Based Instruments (MBIs) to help select the most efficient projects. … With the ALUS project it was very difficult to measure outcomes on the landscape due to its inherent focus on maintenance rather than enhancement. Although Manitoba values maintenance of natural capital, it is much more difficult to measure versus enhancement.[130]

Interview responses from Rosann Wowchuk presented a similar explanation. Wowchuk argued that governments desire short-term results to see their policies are having the desired effect. If ALUS were to be adopted in Manitoba, Wowchuk stated that the government would have to make a decision about where the necessary funds would come from.[131] She explained,

"redirecting money means that something else is given up … the dollars have to come from somewhere in the budget. … Governments must consider costs and benefits and make hard decisions."[132] Wowchuk added that the problem with the Blanshard ALUS project, and in EGS programs in general, is that "there are no effective mechanisms in place to understand the value in dollars" and that ultimately decisions about programming "come down to dollars and cents."[133]

As mentioned in the previous section of this chapter, environmental measurements were not taken as part of the Blanshard project. Due to the short-term nature of the project and the limited funds assigned to it, measurements of environmental benefits were not a central goal. However, one of the main reasons why pilot projects are implemented is to identify weaknesses and strengths and inform future policy decisions. While research supports the many benefits of wetland and riparian areas are generated by maintenance, quantifiable environmental measurements could be produced if ALUS were adopted on a larger-scale and for a longer period if appropriate measures were enacted.

Agricultural economists, Pattison, Boxall, and Adamowicz explain, "Despite increasing awareness of wetland loss and the reduction of ecosystem service benefits from this decline, provincial governments have been slow to implement policies that arrest or reverse decline."[134] They offer a number of explanations for this policy failure.[135] Citing the work of Schuyt and Brander (2004), Pattison et al. argue that one of the main causes of wetland degradation is "information failure" because

> policymakers have insufficient information on the economic value of wetlands, and therefore do not adequately consider the full extent of trade-offs when making development decisions. This lack of information arises from the fact that most of the services provided by wetlands are public goods, and are not traded in markets.[136]

Pattison et al. explain that while there have been "concerted efforts to retain and enhance wetlands in the province, there has been little information on the economic benefits of such actions."[137]

Research and technology has a major role to play in not only measuring environmental indicators and changes but also in translating that data into economic costs and benefits for governments to consider. For example, a 2007 study, conducted by Allen and Edward Tyrchniewicz, examined the potential cost reductions and financial benefits of the ALUS program if it were to become nationally adopted. The study presented a cost-benefit analysis that demonstrated that a national ALUS program could result in government cash savings in areas such as reduced crop insurance claims and mitigating damage to municipal infrastructure.[138] While attributing value to ecological goods and services is complicated, research that effectively shows budget savings in other programming areas may help convince governments that dollars are being well spent. Research also supports that citizens would be willing to make more of a financial investment in EGS programs. A 2010 survey of Manitobans suggested that over a five-year period Manitobans would be willing to pay $296–$326/household/year depending on the level of the wetland program improvement."[139] In addition, a majority of survey respondents felt that while landowners had some financial responsibility for wetland restoration, governments should pay the largest share of restoration costs and supported the involvement of nongovernmental conservation groups (e.g. DUC) in sharing the financial costs of wetland restoration.[140]

Given the dependence on federal funding and support to implement ALUS more broadly, it is also important to understand the state of intergovernmental relations and how priorities may have shifted at the national level. As Kingdon suggests, a change in government can close the

policy window for change to occur. Before the end of the Blanshard project, the Conservative Party had won a minority federal government in 2006 after the Liberal Party had held power since 1993. Rosann Wowchuk stated that from her perspective as Minister, the change of government at the federal level did not make a difference in the support for ALUS.[141] However, in a 2008 article on the topic of intergovernmental relations between Manitoba and the national government, Paul G. Thomas explains that there had been a number of complaints from provincial public servants about lack of consultation on intergovernmental issues with the Harper government.[142] Thomas draws from interview data with Manitoba's public servants who described their dealings with federal officials as "tightly controlled, secretive and unresponsive" especially compared to the previous government of Paul Martin where there "was a willingness to match talk with action and money on crucial files for Manitoba like the Kelowna Accord, health care spending, the 'cities agenda' and child care."[143]

For any intergovernmental agreement to be made, especially one that requires a major funding commitment, federal and provincial goals need to be aligned. In recent years, the Harper government has made a number of cutbacks and departments have been streamlined. Two examples of cuts that were particularly contentious amongst many Prairie farmers were the announcements of the end of the PFRA's Community Pasture Program in 2009 and the closure of the shelterbelt centre in Indian Head, Saskatchewan in 2012.[144]

As mentioned in the first chapter, the PFRA was created in the 1930s to promote better environmental stewardship practices on the Prairies. In 2009, Jamshed Merchant, the assistant deputy minister in charge of the newly created Agri-Environment Services branch, stated,

> Rehabilitation was done a long time ago. Now it [the branch] will help the agricultural sector expand in a sustainable way. … new policies and technologies have to be good for farmers. We're not there just for the environment's sake, if you like.[145]

Since the 2009 announcement, most of the PFRA pastureland has been transferred to the provinces and will be completed in March 2015 as part of a six-year phrase out of federal management and funding.[146] In addition, federal funding cuts have also led to the closures of a number of PFRA offices and research stations.[147] Relatedly, in 2012, the federal government decided to close the Indian Head shelterbelt centre, which grew and distributed trees for planting shelterbelts since 1901.[148] Gerry Ritz, federal Minister of Agriculture argued that changes in farming practices essentially have rendered the use of shelterbelts "redundant", despite many stakeholders claiming that there was still a demand in the farming community.[149]

It must be noted that federal funding for agri-environmental programs continues under Growing Forward II (2013) and additional financial support is being directed towards wetland conservation and farm-based initiatives under the recently announced National Conservation Plan (2014).[150] However, cuts to the PFRA, the Indian Head shelterbelt centre, and research stations are symbolic given their long history on the Prairies. Furthermore, the termination of these Prairie institutions illustrates a broader trend within the national government to cut programs and reduce the budget in areas they perceive to be inefficient or not in line with maximizing economic potential. For example, the overall aim of the most recent agricultural policy framework, Growing Forward II, is "generating market-based economic growth in the agricultural sector."[151]

As years have passed with no major commitment from the federal or provincial governments to implement the ALUS program on a larger-scale, some of the original ALUS partners have moved on to other issues. For example, while KAP has remained committed to the ALUS programming concept, there are many issues that they must raise with government given the diverse group of farmers they represent. In addition, Ian Wishart who served many roles

within the group, including President for three years and Vice-President for four, resigned in 2010 to run in the 2011 provincial election for the Progressive Conservatives.

Ian Wishart was a major champion for ALUS from the very beginning and it clearly was one of his priorities to see a broader adoption of the program in the province and in Canada. As in any organization, political or non-political, a change of leadership often translates into a new agenda. James Battershill, general manager of KAP at the time of writing, explains that "our current president has other projects and priorities he focuses on but we've continued to press for EGS programming generally in all our discussions."[152] Therefore, another reason that helps account for government's lack of ALUS adoption is that pressure from stakeholders has changed. KAP, which by the provincial agriculture Minister's own account was "instrumental" in pressuring the provincial government for the initial ALUS project, had new leadership in 2010 and a variety of other issues on their agenda.[153]

Kingdon's argument that the policy window for change can close if government believes that the problem has been solved or the crisis has passed is not applicable in this case. Concerns for the economic stability of the agricultural industry are ongoing. As Appendices C, E, F, G, and H illustrate, trends of consolidation and intensification have only increased in recent years, which reflects the constant economic pressures farmers face. In turn, land management practices can, and have, led to conversion of natural capital, environmental damage, and pollution. Particularly in Manitoba, flooding and the pollution in Lake Winnipeg continue to attract media and public attention. In June 2014, the provincial government announced a $320 million water strategy designed to "protect Lake Winnipeg and mitigate flood and drought damage."[154] Funding will be directed towards "flood protection and water control infrastructure including surface water management, drainage, retention, dams and control structures."[155] Of the $320

million, $4 million is being invested in "on-farm water retention projects over the next five years through Conservation Districts, the Manitoba Habitat Heritage Corporation, the Nature Conservancy of Canada, and/or Ducks Unlimited Canada."[156] Further details about these programs have not been released at the time of writing. However, the provincial government's announcement underlines the fact that environmental issues, specifically regarding water stewardship, remain constant and unresolved in Manitoba.

As governments continue to explore EGS programming and adopt alternative policy tools to address agricultural sustainability concerns, policy change is still possible and the policy window has not been closed. Rather, Canada's agricultural policy approach is in transition as governments are trying to find the most effective policy tools to promote sustainability goals.

Canadian governments, with the exception of PEI, have been hesitant to make major investments into the ALUS program. However, ALUS projects continue to operate throughout Canada as stakeholders remain committed to the programming concept. Therefore, the question remains whether or not stakeholder-led ALUS projects will encourage governments to eventually adopt the program as part of a larger policy framework.

## 5.4 The New Manitoba Project and the Future of ALUS

In May 2014, a new ALUS project was announced in Manitoba. Delta Waterfowl, one of the founders of the ALUS program, is largely responsible for the program returning to Manitoba. The project will be located in the Little Saskatchewan River Conservation District, which encapsulates the RM of Blanshard.

While details have yet to be finalized about the new project, it is clear that there are a number of key differences from the Blanshard pilot. First, the budget and funding sources are quite different. The Blanshard project received funding from the federal, provincial, and

municipal governments as well as DW and international conservation groups with a total budget of approximately $1.38 million.[157] Monetary and in-kind contributions for the new Manitoba project are estimated to total $366,500.[158] The bulk of the project's funding is being provided by a $100,000 federal grant acquired through the Lake Winnipeg Basin Stewardship Fund.[159] In addition, the W. Garfield Weston Foundation, a private foundation that donates money to various causes such as education, land conservation, and medical research, has pledged $33,000/year for at least three years.[160] Delta Waterfowl, Manitoba Habitat Heritage Corporation, the LSRCD, and local landowners will also provide funding and in-kind contributions.[161] The ALUS project is expected to run for at least three years but stakeholders hope that it will be ongoing.[162] Jim Fisher, Director of DW's Conservation Policy, explained the length of the project ultimately is dependent on continued funding.[163]

A second difference between the Blanshard pilot and the new ALUS initiative is that the program has different partners and administration. MASC will not have a role in the project's administration. Instead, DW in partnership with the LSRCD will be administering the funds and overseeing the program. MAFRD has stated that it "is not planning any involvement with the new ALUS project at this time. We are not aware of any other provincial departments that will be involved."[164] In addition, the Keystone Agricultural Producers state that they will not be "playing a role in this one."[165] MASC and KAP played important roles in the Blanshard pilot project and the high level of landowner uptake of the ALUS program was largely attributed to their involvement. However, DW remains hopeful that the province and KAP will become involved in some capacity during the course of the project.[166]

A third key difference is that the new ALUS project will establish demonstration farms in the LSRCD rather than being exclusively available to only one RM. Fisher stated, "The new

ALUS project will encourage landowners to restore, enhance, create and conserve wetlands, fence riparian areas, install off-site watering systems for livestock, restore buffer strips, convert marginal cropland to grasslands and plant shelterbelts."[167] Jim Fisher explained that the ALUS program model has evolved over the years to require landowners to develop "something new" on their land to be eligible for funds rather than just maintaining land areas.[168] In part, this program change is a response to the criticisms of some government officials that landowners were getting paid for land stewardship practices they would have implemented without receiving ALUS funds.[169] The validity of this critique can be debated as it disregards why the ALUS project was implemented in the first place. In addition, Roy Greer's assessment of land management changes in the RM of Blanshard since 2008 strongly supports the positive impact that the ALUS pilot had on wetland maintenance.[170] Regardless, the new ALUS model may be more appealing to policymakers that want the ability to justify public spending by seeing and measuring landscapes changes within a shorter timeframe. Figure 5.1 outlines the new project's goals.

**Figure 5.1: Goals for Manitoba's New ALUS Project**

| | |
|---|---|
| • Restore 70 acres of previously drained wetlands | • Install 15 off-site watering systems |
| • Enhance 50 acres of degraded wetlands | • Seed 50 acres of grass buffers |
| • Create 40 new acres of wetlands | • Seed 110 acres of marginal cropland to grasslands |
| • Conserve 850 acres of existing wetlands | • Plant 10 acres of shelterbelts |
| • Fence 90 acres of riparian areas | |

Source: Canada. *News Release*. "Sopuck Announces Funding for Little Saskatchewan River Conservation District for Wetland Conservation, Land Management and Water Stewardship". July 15, 2014. [Online]

With less funding and fewer partners, the new ALUS project may seem to be at a disadvantage compared to the original Blanshard pilot. However, the ability to measure and evaluate specific landscape management goals may better demonstrate the benefits of an EGS program compared to a program model that focuses more exclusively on maintenance.

As discussed throughout this dissertation, policymakers at all levels of government have expressed their support for the ALUS programming concept. However, there has been no national program developed or any province-wide initiatives, with the exception of PEI. One plausible explanation for policymakers' hesitation may be that governments are under constant pressure to justify public spending by providing short-term results. Of course, with any policy directed at major environmental change, the impact can only be fully judged by evaluating programming outcomes over a long-term. However, as the new ALUS model provides policymakers physical evidence of landscape changes in a short timeframe, it may serve as an important step towards governments implementing ALUS on a larger scale. As additional ALUS projects are implemented and for longer periods, it can be anticipated that observable environmental benefits will generate further support and subsequent policy action.

DW has shown perseverance in promoting the ALUS program and acquiring funding from both government and non-government sources to implement projects throughout Canada. Jim Fisher stated, "It's interesting that Manitoba started the whole concept and now all these other communities have seen how smart of an idea it is. It's exciting now to come back to Manitoba."[171] Fisher also explained that stakeholders who were involved in the Blanshard pilot project such as Roy Greer have also been committed to getting the program back to their area.[172] In addition, other RMs in Manitoba have attempted their own EGS programs inspired by ALUS. For example, in 2010, the RM of Dufferin, located in south-central Manitoba, established a program to preserve wetlands in their community.[173] The municipality paid producers $40 per acre to maintain sloughs and committed $10,000 per year for three-years.[174] Given the lack of financial capacity of most RMs, especially in directing funds towards new initiatives, Dufferin's

program demonstrates that local governments believe an incentive-based program is a necessary part of the solution to maintain natural capital.

To summarize, many features of the new Manitoba ALUS project are different from the Blanshard pilot. Manitoba's new project is operating with less funding and within a larger boundary. As such, by partnering with the local Conservation District and establishing demonstration farms, the ALUS project's administrators are being strategic in directing funding to land areas that are most vulnerable to ecological degradation. With ambitious goals of inspiring a broader adoption of an EGS program in Canada, the ALUS programming model has been refined to utilize limited funds to make the greatest environmental impact.

The implementation of ALUS on a larger-scale ultimately depends on a major commitment by the federal and provincial governments. Therefore, it is only with political will that ALUS will become the program that stakeholders initially envisioned it to be. In August 2014, Manitoba's Progressive Conservative Party, which serves as the Official Opposition, promised that if elected they intend to implement ALUS province-wide.[175] Manitoba's Liberal Party and Green Party have also expressed their support for implementing ALUS again in the province.[176] The next provincial election in Manitoba is set for April 2016.[177] Therefore, the support that ALUS requires from political actors to take the programming concept from projects to policy may only be an election and a change of government away.

## 5.5 Summary

Evaluation is intended to gauge the effectiveness, efficiency, and appropriateness of a policy or program. While stakeholders provide feedback, it is up to policymakers to decide what happens next in the policy process. Moreover, the evaluation is only one factor that influences political leaders.

The Blanshard ALUS project demonstrated potential for improving land management by encouraging landowner participation, taking advantage of existing agricultural institutions, and including multiple stakeholders in the administration. In addition, the evaluation of the ALUS project suggests that economic incentives may be an important part of a broader conservation plan especially with regard to encouraging maintenance of wetlands, protecting ecologically sensitive land, and encouraging the adoption of BMPs on privately held land. As agriculture is driven by economics and farmers respond to market signals, the Blanshard project, along with other ongoing projects throughout Canada, support the fact that an incentive-based program may be an important policy tool to promote enhanced environmental stewardship.

Agenda-setting and enabling a window of opportunity for policy change is a gradual and cumulative process. This is especially true in Canada's policymaking environment, where jurisdictional overlap requires multiple levels of government to be involved. Governments have priorities and deciding what public issues are to be addressed, and more importantly how, takes time. Problems emerge and fade from prominence on the political agenda and there are a number of factors that shape the response of policymakers at any given time.

The lack of political commitment to implement ALUS as a provincial program or as part of a national conservation plan is due to a multitude of factors within the policy environment. Intergovernmental relations, political priorities, budgetary restraints, and interest group activity are some of the key explanations for why ALUS has not been more broadly implemented.

ALUS represents an incentive-based programming attempt that met many of its objectives in encouraging better land stewardship. However, during the Blanshard project's development, little consideration was given to how it would be evaluated and what necessary steps should be taken to ensure effective performance measurement. In a policy environment that

promotes reactive policymaking and demands short-term results to justify public expenditures, it necessitates better ways of measuring changes that agri-environmental programs enable, and translating environmental benefits into economic terms.

The Blanshard ALUS project stemmed from stakeholders pushing for policy action and developing an innovative policy tool proposal to promote better environmental stewardship on agricultural land. While stakeholders have kept ALUS alive in Canada, and are responsible for its return to Manitoba, a larger-scale program will require major government support.

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# Conclusion

Canada's primary agricultural industry has progressed through a series of stages and continues to be shaped by the same factors: technology, international markets, the environment, and government policies. At every stage, governments have promoted increased production to support broader economic goals and farmers' financial viability. While agri-environmental concerns were sometimes raised and government policies sought to encourage improved land management, particularly in the 1930s, it was not until the 1990s that the concept of sustainable development really established itself on the Canadian political agenda. Its arrival coincided with growing concerns at the domestic level related to agricultural trends of consolidation, intensification, and conversion of natural capital. In the early 2000s, weather disasters, trade bans, volatile markets, smaller profit margins, and increased debt loads, created an economic crisis within Canadian agriculture. With mounting environmental concerns related to agricultural production, policymakers, at all levels of government, were determining how to better enable agricultural sustainability through policy action.

The ALUS program emerged in the early 2000s as a partial response to the challenges facing agriculture and the environment. The program was significant for at least two reasons. First, it was one of the first policy initiatives in Canada to reflect the idea of multifunctionality and provide financial rewards to farmers for providing ecological goods and services (EGS). Second, the push for policy change came primarily from a farm organization, which formed a unique partnership with conservation groups and a rural municipality. These groups demonstrated policy leadership as they developed an innovative project proposal, garnered provincial and federal government support, and assumed key roles in the administration of the ALUS pilot.

This dissertation has told the story of ALUS, from initiation to implementation to non-renewal, with two main goals in mind. One has been to shed new light on the policymaking process itself. How does policy change happen and what are the limits to policy change? The second goal has been to draw conclusions about the prospects for a policy shift towards multifunctionality and a more balanced and sustainable Canadian agricultural industry.

***Policy Change and Challenges to Policymaking***

Canada's policymaking environment is often described as being resistant to change. Furthermore, when policy change does occur, it is most often characterized as the result of a top-down process. The Blanshard ALUS case study demonstrates that it is possible for innovative programming to be adopted and change can rise from the grassroots level. Stakeholders' ability to articulate concerns and frame the problem, put forth workable policy suggestions, generate widespread support from political leaders, conservationists, and the farming community, provide feedback, and demonstrate persistence, were major determinants in the adoption of the ALUS pilot and its ability to meet its objectives.

Kingdon's three stream agenda-setting theory has guided the case study and helped to identify many of the key factors that created a receptive policy environment for policy change. International influences, problem recognition by stakeholders, broader policy trends, the availability and merit of the policy alternative, and public attention to environmental issues in Manitoba, coalesced to provide a window of opportunity for the ALUS project to be adopted.

The decision to implement an incentive-based policy tool rather than regulation was prompted by three key factors: it was a time of economic distress within primary agriculture; existing policy instruments were not encouraging environmental stewardship; and policymakers believed the ALUS program could be an effective component of a larger policy framework.

Furthermore, the extensive support and lack of opposition for the ALUS programming concept, presented government with a politically feasible policy tool.

The ALUS project had four main objectives: to test the feasibility of the programming concept at the local level; to test the ability of an existing agricultural agency to administer the project along with stakeholder groups; to determine landowners' response to an EGS program; and to provide information for a broader adoption of ALUS. An evaluation of the Blanshard project revealed that it met or exceeded most of its goals and that it would be reasonable to regard the pilot project as a success. However, the premature evaluation of Blanshard's pilot, the uncertainty of government funding to finish the project, the lack of analysis of final year statistics, and the failure to gather baseline environmental measurements for future programming, all support an argument put forth by Paul G. Thomas: governments are often more focused on take-offs than landings.[1]

As with other stages of the policymaking process, agenda-setting is an inherent part of evaluation and policy action is shaped by complex and interrelated factors, which ultimately boil down to a political decision. While an evaluation of a policy or program is valuable to determine its effectiveness, efficiency, and appropriateness, it is only one of the many factors that influences policymakers' decision to renew, rework, or terminate a policy or program. However, as the ALUS case study reveals, policymakers face little accountability when it comes to explaining why a program that has been favourably evaluated has not been renewed. Since the majority of Manitoba's urban population had little awareness of the project, the lack of renewal or broader adoption in the province attracted little attention. In the absence of wider public attention and support, political leaders were under little pressure to make a further commitment to an ALUS program.

While Blanshard's ALUS project exemplifies a case of policy change, it also demonstrates a case of policy failure. Policymakers were presented with a program that demonstrated its ability to meet its objectives, lacked political opposition, had widespread support from a diverse group of stakeholders, including conservationists and various sectors of the agricultural industry, and addressed the linkage between agricultural production and environmental issues in the province.

As mentioned, Kingdon's agenda-setting theory has been valuable to understanding how a receptive policy environment was created for the adoption of the ALUS pilot project. However, in analyzing why the Manitoba government failed to renew and/or expand the ALUS program, Kingdon's theory for why policy windows close was not able to provide a complete explanation. Blanshard's ALUS project has shed light on the policymaking process, especially with regard to government decision-making following the conclusion of a programming attempt. The case study has underlined the complexity of the Canadian policymaking environment and the fact that agenda-setting is ongoing throughout each stage of the policy process. Furthermore, this dissertation highlighted key factors in the policy environment that contributed to lack of further program uptake in Manitoba: first, intergovernmental affairs and shifts in political priorities; second, budgetary restraints and government demands for short-term performance measurements to justify public expenditures; third, change of leadership and policy agenda of a key stakeholder group; and last, the lack of broader public awareness and attention of agri-environmental programming, which translated to little pressure on government to implement the ALUS program again and/or explain why they were choosing not to despite the considerable success of the Blanshard pilot.

This research has also identified specific challenges when it comes to creating public policies directed at agricultural sustainability goals. Setting objectives for sustainability is not an easy task because there is often little consensus regarding what they should be. For example, some policy actors may prioritize environmental maintenance over economic production and sustaining employment levels or vice versa. The challenge is that economic, social, and environmental goals are often regarded to be in conflict, such that a balance can never truly be promoted by any one policy without sacrifices to one or more of these goals. However, in the ALUS case study, stakeholders found common ground to address both economic pressures and enable better management practices. When consensus is not commonly reached among a diverse group of political and non-political actors, it is significant when a new programming idea comes along that attracts widespread support and little to no opposition.

Another challenge of creating policies aimed at sustainability is that environmental goals require long-term vision, which is problematic given the short-term focus of most governments. Political leaders face a myriad of pressures from opposition parties, the media, the public, interest groups, and other governments to address a multitude of issues at any given time. Therefore, governments that are dealing within time and budgetary constraints must prioritize issues on the agenda; in that sense a program like ALUS that requires a long-term investment presents a problem. Programming that is directed at long-term environmental goals does not often produce short-term measurable results that governments desire to meet election promises and justify redirecting public funds.

The Blanshard ALUS case study demonstrated that policy change can occur in Canada's policy environment and innovative policy tools can be adopted. However, the case study also reveals the challenges of keeping the window of opportunity open long enough to encourage

additional policy change. Furthermore, the short period the window of opportunity allows for change, is not conducive to sustainable development policies that require a long-term commitment to be effective.

***Transitioning to a New Policy Approach?***

Sustainable development is best understood as a broad framework that encapsulates key principles, values, discussion, and policy action, and relates to many policy fields. Policies directed at agricultural sustainability are an important element of this framework due to the multiple economic, social, and environmental roles of the industry.

The concept of multifunctionality promotes a deeper understanding of the diverse roles that agriculture serves. Since the early 2000s, there has been a notable attempt by Canadian policy actors, political and non-political, to acknowledge the interconnection of the economic, social, and environmental functions of the agricultural industry and new policy tools have reflected a shift in approach. However, Grace Skogstad, one of only a few scholars researching multifunctionality in Canada, argues that as a governing paradigm, multifunctionality has not been fully embraced and public policies continue to emphasize agriculture's economic role.[2]

According to Skogstad, the Canadian government has not adopted multifunctionality to the same extent as the European Union because agriculture is less visible, there is less linkage made by the public between agriculture and environmental damage, and non-agricultural civil society organizations (e.g. environmental or consumer groups) have been largely excluded from the policymaking process.[3] However, the Blanshard ALUS case study presents a different picture of the policymaking environment at the provincial level. First, agri-environmental concerns related to flooding, Lake Winnipeg's pollution, and the impact of intensive livestock operations in Manitoba, have attracted a great deal of public and government attention. Second,

agriculture's economic, social, and environmental roles are arguably more visible at the provincial and local levels because citizens are more directly impacted. Third, one of the main reasons why the Manitoba government seriously considered ALUS as an alternative policy tool was because of the involvement of conservation groups in addition to industry representatives and a local government. Therefore, the Blanshard ALUS project supports Skogstad's suggestion that devolution of agricultural programs, including environmental initiatives, has made "provinces, local communities, and farms themselves the front line in advancing many of the practices that are associated with the more sustainable agriculture evoked by the multifunctionality paradigm."[4]

Agriculture is an economically driven industry and government policies and programs have largely supported the industry's economic growth to support broader economic goals. In addition, farmers have responded to market signals and adapted their operations to ensure they are competitive and profitable. Incentive-based policy tools that assign monetary value to ecological goods and services fit within the culture of the industry. Traditional policy tools like regulation and penalties have largely failed to encourage farmers to make changes to their land management practices and there has been a lack of enforcement from governments. Conversely, programs like ALUS, offering modest financial incentives and recognition for the production of EGS, have received overwhelming support from farmers, who have adopted better management practices within a reasonably short period of time. Agricultural sustainability, in the short and long-term, is dependent on improved environmental stewardship. Therefore, if incentive-based policy tools can effectively promote and enable changes to farm management, they have a critical role as part of a larger policy framework aimed at sustainability goals.

Throughout the course of collecting data for this dissertation, a sentiment that I repeatedly came across in literary sources and in interviews was that a "shift in thinking" is required by government, stakeholders, and the public to fully accept that the economic, social, and environmental pillars of sustainability are not just interconnected, but absolutely dependent on each other. Trends of consolidation and intensification in Canadian agriculture are intrinsically linked to conversion of natural capital and ecological damage. As such, Canadian agriculture's sustainability will be determined by how governments enact policy that takes into account economic, social, and environmental considerations, as well as how effective those policies are at encouraging the change desired. Fostering partnerships between industry and conservationists and encouraging the creation of innovative policy proposals from stakeholders, will prove to be a continuing source of useful information for policymakers.

While the Blanshard ALUS project was criticized for its inability to demonstrate value for dollar, the short timeframe of the project, lack of money devoted towards conducting measurements, and nonexistent dialogue about what would be determined as value, put the Blanshard project at a disadvantage for determining its worth in financial terms. As governments desire short-term results to justify public expenditures, policy actors, including government and stakeholders, need to discuss how to best translate environmental benefits into economic language.

Environmental benefits are best judged over a long-term and effectively measuring, valuing, and evaluating them, will be a contentious and complex process. However, developing more effective mechanisms to translate environmental benefits into economic language seems necessary to garner the political support required for a broader and longer-term EGS program in Canada. The partnerships that have formed among a diverse group of stakeholders, including

industry and conservation, as a result of EGS programming initiatives, can play a key role in continuing a respectful dialogue about sustainability goals and measurements.

While current governments have been resistant to adopting the ALUS program on a larger-scale, stakeholder groups continue to establish projects and keep the program alive. The knowledge gained from these ongoing land stewardship projects will continue to help proponents refine the programming model and develop best management practices. The longer these projects run and the more acres that can be involved, the more ability there will be to measure outcomes and outputs effectively. In turn, the more data that is collected about EGS programming costs and benefits, the more evidence there will be for political actors to justify long-term investment.

Testing and accepting non-traditional policy tools like EGS programs has been part of a new approach towards promoting agricultural sustainability goals in Canada. However, despite the evident success of ALUS on a small-scale, the lack of broader application of the ALUS program and the overwhelming focus of governments to promote agriculture's economic role, suggests that Canadian governments still have a long way to go towards a policy approach that embodies and encourages agricultural multifunctionality.

The transition to a new approach has been gradual, cumulative, tentative, and it is still evolving. However, with respect to agri-environmental issues, continuing public concern and the persistence of stakeholders to keep EGS programming on the government's radar, especially at the provincial level, may be the catalyst for future policy change. The evidence is still mixed that Canada is transitioning towards a more supportive policy environment that will fully embody multifunctionality. However, the Blanshard ALUS pilot and the other projects that have followed, have undoubtedly played a pivotal role in promoting a new policy approach that better enables agricultural sustainability.

## Notes

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## Appendix A: Interviewee Contact Letter

Hello (Name of Contact),

My name is Kerri Holland and I am a PhD candidate in the Department of Political Science at the University of Alberta. I am collecting research for my doctoral dissertation and as part of this research I intend to conduct personal interviews during the month of May 2013. I am contacting you to request an interview given your expertise and personal experience in the area that I am researching. For your information, I have attached an abstract of my research project for your review. In addition, I have attached a consent form outlining the study and your rights as an interviewee, which has been approved by the Research Ethics Board at the University of Alberta. If there is any additional information or clarification you require, please feel free to contact me personally (information provided below) and I would be happy to provide it for you. It is my sincere hope that you will consider participating in my research study and agree to be interviewed. I am confident that your expertise could add enormous benefit to this research. If you are willing to participate please sign the enclosed consent form and email it back to me at your earliest convenience. I can also accept it the signed consent form by fax if you would prefer. Please let me know which option you would prefer. Once the consent form has been received I will contact you to arrange a date and time to meet. I thank you for your time and consideration.

Best Regards,

Kerri L. Holland

Contact Information Followed.

## Appendix B: Interview Consent Form

**Project Title: Transitioning to a New Approach for Sustainability: The Case of Manitoba's ALUS Project**

**Researcher: Kerri L. Holland, PhD Candidate, University of Alberta**

This consent form, a copy of which will be left with you for your records and reference should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this document carefully and to understand any accompanying information.

I. The purpose of this interview is to gather information that will be used in part for writing my doctoral dissertation to complete my PhD in political science at the University of Alberta. To conduct a thorough research project I am interviewing key individuals with the intention that information gathered will provide a detailed account of key stakeholder positions and contributions to public policy, particularly related to agriculture and environmental policy in Manitoba.

II. You are being asked to participate in an interview based on your specific expertise with the subject matter. Each individual will be interviewed one time on a mutually agreed upon date. The interview will consist of a list of general questions and discussion points. Each interview will be approximately one hour in length. The subject is aware that the comments he/she makes may be quoted in the research paper, unless it is indicated they are to be kept confidential.

III. Minimal risk, no more than found in daily life, will be presented to the subject's well-being during the research.

IV. The interview will take place in a setting which allows for privacy. Detailed notes will be manually taken by the researcher. Following the interview, the interviewee may be contacted by email or phone to briefly expand or clarify an area discussed during the interview, or to verify comments for direct quotes. On the day of the interview, the interviewee may specifically request to be sent any direct quotes or comments taken from the interview that will appear in the draft dissertation document. Upon receiving the list of quotes/comments, the interviewee will be given a two week period to suggest changes or verify the quote. If the two week period has expired the interviewer will be able to use the quotes/comments as is.

V. The interview subject will be provided with background information on the research project and a list of possible discussion topics for the interview, at least one week prior to the date of the arranged meeting. The subject will also be informed that all responses are voluntary and if there is information given that is to be kept confidential, it will only be used for informational purposes and will not be cited in any publication.

VI. Interview subjects will be cited in the acknowledgements section of the research paper.

VII. The information gathered from the interviewing process is being conducted for the primary purpose of dissertation research and may appear in draft copies and/or the final dissertation document. In addition to the final draft copy of the dissertation, the researcher may cite data in research articles and presentations related to the project. All data gathered will be handled in compliance with the Standards outlined.

**As a participant agreeing to be interviewed, you are entitled to the following rights:**

To withdraw participation at any time prior to the interview being conducted and/or refrain from answering any questions you prefer to omit, without prejudice or consequence.

To privacy, anonymity and confidentiality if you choose to state that specific comments made during the interview are to be kept in confidence or are to be used only for the purpose of general information.

To have the data collected during the interview safeguarded by the interviewer in a secure place. As the interviewee, please be aware that to ensure validity of recorded data, the information will remain secure for a period of five years following the completion of the research project. After the five year period has expired, the information will be destroyed in a way to ensure privacy and confidentiality. The reason for this time frame is to allow verification of comments if the research work is published.

To be disclosed to the presence of any apparent or actual conflict of interest on the part of the researcher.

If desired, to receive a copy of the completed research project once approved by the dissertation committee. To receive a copy of the research findings you must contact the researcher following the interview, or make your interest known on the day of the interview and provide a mailing address for the document to be sent.

Persons who may be contacted in the case of concerns, complaints or consequences:

Researcher and Research Supervisor Contact Information Followed

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension, Augustana and Campus Saint Jean Research Ethics Board (EEASJ REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEASJ REB c/o (780) 492-2614.

Two copies of the letter/consent form are being provided for the purpose that one is to be kept by the participant for their personal records and the other to be signed and returned to the researcher in the postage paid envelope.

**I understand the form that I am signing and the rights outlined for me as an interviewee. My signature below provides consent to be interviewed by Kerri L. Holland on a mutually agreed upon date and time.**

_____

Name of Interviewee (Print)

_____ _____

Signature of Interviewee Date

_____

Kerri L. Holland, Researcher

_____ _____

Signature of Researcher Date

# Appendix C: Total Farm Area and Acres in Cropland—Canada and the Prairie Provinces

| Canada | 1921 | 1931 | 1941 | 1951 | 1956 | 1961 | 1966 | 1971 | 1976 | 1981[1] | 1986 | 1991 | 1996 | 2001 | 2006 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total area of farms (acres) | 140887903 | 163114034 | 173563282 | 174046222 | 173919214 | 172542461 | 174120560 | 169664166 | 169082181 | 162815073 | 167601113 | 167423057 | 168167475 | 166802197 | 167010491 | 160155748 |
| Land in Crops (acres) | 50033611 | 58339948 | 56279910 | 62212086 | 6293946 | 62435008 | 69052785 | 68765273 | 70038204 | 76518197 | 81992625 | 82799535 | 86286078 | 89934387 | 88741106 | * |
| | | | | | | | | | | | | | | | | |
| **Manitoba** | **1921** | **1931** | **1941** | **1951** | **1956** | **1961** | **1966** | **1971** | **1976** | **1981[1]** | **1986** | **1991** | **1996** | **2001** | **2006** | **2011** |
| Total area of farms (acres) | 14615844 | 15131685 | 16891322 | 17730393 | 17931817 | 18169951 | 19083817 | 19008259 | 19026255 | 18819365 | 19126517 | 19088868 | 19106531 | 18784407 | 19073005 | 18023472 |
| Land in Crops (acres) | 5858683 | 5846030 | 6327967 | 7335184 | 7686013 | 7688728 | 8693682 | 9122474 | 9507495 | 10922971 | 11167521 | 11764813 | 11611844 | 11650599 | 11616450 | * |
| | | | | | | | | | | | | | | | | |
| **Saskatchewan** | **1921** | **1931** | **1941** | **1951** | **1956** | **1961** | **1966** | **1971** | **1976** | **1981[1]** | **1986** | **1991** | **1996** | **2001** | **2006** | **2011** |
| Total area of farms (acres) | 44022907 | 55673460 | 59960927 | 61663195 | 62793979 | 64415518 | 65409363 | 65056875 | 65511431 | 64116652 | 65728443 | 66386074 | 65653588 | 64903830 | 64253845 | 61628148 |
| Land in Crops (acres) | 17822620 | 22128952 | 19767341 | 23705575 | 24480501 | 23923192 | 27018238 | 27339147 | 26195439 | 29012310 | 32928799 | 33257706 | 35579845 | 37994752 | 36967225 | * |
| | | | | | | | | | | | | | | | | |
| **Alberta** | **1921** | **1931** | **1941** | **1951** | **1956** | **1961** | **1966** | **1971** | **1976** | **1981[1]** | **1986** | **1991** | **1996** | **2001** | **2006** | **2011** |
| Total area of farms (acres) | 29293053 | 38977457 | 43277295 | 44459632 | 45970395 | 47228653 | 48982875 | 49506287 | 49928771 | 47218170 | 51040463 | 51425111 | 51964360 | 52058898 | 52127857 | 50498834 |
| Land in Crops (acres) | 8523589 | 12039310 | 12284123 | 14427631 | 14850171 | 15614839 | 17707659 | 18092544 | 18877471 | 20858765 | 22641092 | 22961142 | 23590033 | 24038861 | 23775509 | * |

* Data not yet released from Statistics Canada

**Data Compiled from:** Statistics Canada. "A Statistical portrait of agriculture, Canada and provinces: census years 1921-2006". January 2009 [Online] Statistics Canada. "Snapshot of Canadian Agriculture: Census 2011". May 2012 [Online] Canada. Statistics Canada. *Number of farms, farm area, and average farm size by province, with percentage change since 2006, Canada and the provinces, 2011*. May 2012 [Online]

**Note**

In 1981, the area of unimproved land was underreported in the four Western provinces. Canada. "A Statistical portrait of agriculture, Canada and provinces: census years 1921-2006". January 30, 2009 [Online]

## Appendix D: Average Age of Farm Operators in Canada 1991-2011

**Average age of farm operators, Canada and the provinces, Census years 1991 to 2011**

| Province | 2011 | 2006 | 2001 | 1996 | 1991 |
|---|---|---|---|---|---|
| Newfoundland and Labrador | 55 | 52.3 | 50.5 | 47.7 | 46.2 |
| Prince Edward Island | 54.2 | 51.4 | 49.3 | 48.0 | 47.6 |
| Nova Scotia | 55.4 | 53.2 | 51.0 | 49.1 | 48.3 |
| New Brunswick | 55.5 | 52.8 | 51.0 | 49.4 | 48.1 |
| Quebec | 51.4 | 49.3 | 47.0 | 45.2 | 44.3 |
| Ontario | 54.5 | 52.6 | 50.7 | 49.4 | 48.3 |
| Manitoba | 53.1 | 51.2 | 49.0 | 47.7 | 47.4 |
| Saskatchewan | 54.2 | 52.6 | 50.5 | 49.2 | 48.2 |
| Alberta | 54.5 | 52.2 | 49.9 | 48.2 | 47.3 |
| British Columbia | 55.7 | 53.6 | 51.4 | 49.4 | 48.9 |
| Canada | 54 | 52.0 | 49.9 | 48.4 | 47.5 |

Source: Canada. Statistics Canada. *Snapshot of Canadian Agriculture.* October 2009. [Online] and Canada. Statistics Canada. *Farm and farm operator data: 2011 Farm Census of Agriculture*. June 2012. [Online]

## Appendix E: Canada Farm Statistics 1976-2011

| CANADA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Year** | **1976** | **1981** | **1986** | **1991** | **1996** | **2001** | **2006** | **2011** |
| **Total Area of Farms (acres)** | 169,082,181 | 162,815,073 | 167,601,113 | 167,423,057 | 168,167,475 | 166,802,197 | 167,010,491 | 160,155,748 |
| **Average Acres** | 499 | 511 | 572 | 598 | 608 | 676 | 728 | 778 |
| **% Increase of Acreage** | | 2.4 | 12 | 4.5 | 1.7 | 11 | 7.7 | 6.9 |
| | | | | | | | | |
| **# of Farms** | 338,552 | 318,361 | 293,089 | 280,043 | 276,548 | 246,923 | 229,373 | 205,730 |
| **# Decrease** | | 20191 | 25272 | 13046 | 3495 | 29625 | 17550 | 23643 |
| **% of Decrease** | | 6.3 | 8.6 | 4.6 | 1.3 | 12 | 7.6 | 10.3 |
| | | | | | | | | |
| **Land in Crops (acres)** | 70,038,204 | 76,518,197 | 81,992,625 | 82,799,535 | 86,286,078 | 89,934,387 | 88,741,106 | * |
| **# of Acres Change** | | 6479993 | 5474428 | 806910 | 3486543 | 3648309 | -1193281 | * |
| **% Change** | | 9.2 | 7 | .9 | 4.2 | 4.2 | -1.3 | * |

* Information not yet available

Source: Statistics Canada, Census data 1976-2011.

Canada. Statistics Canada. *A statistical portrait of agriculture, Canada and provinces: census years 1921 to 2006*. January 2009. [Online]
Canada. Statistics Canada. *Number of farms, farm area, and average farm size by province, with percentage change since 2006, Canada and the provinces, 2011.* May 2012. [Online]

# Appendix F: Manitoba Farm Statistics 1976-2011

| MANITOBA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Year** | **1976** | **1981** | **1986** | **1991** | **1996** | **2001** | **2006** | **2011** |
| **Total Area of Farms (acres)** | 19,026,255 | 18,819,365 | 19,126,517 | 19,088,868 | 19,106,531 | 18,784,407 | 19,073,005 | 18,023,472 |
| **% of Canada's Total** | 11.2 | 11.5 | 11.4 | 11.4 | 11.4 | 11.3 | 11.4 | 11.2 |
| **Average Acres** | 593 | 639 | 700 | 743 | 784 | 891 | 1001 | 1135 |
| **% Increase of Acreage** | | 7.7 | 9.5 | 6 | 5.4 | 14 | 12 | 13.4 |
| | | | | | | | | |
| **# of Farms** | 32104 | 29442 | 27336 | 25706 | 24383 | 21071 | 19054 | 15,877 |
| **# Decrease** | | 2662 | 2106 | 1630 | 1323 | 3312 | 2017 | 3177 |
| **% of Decrease** | 9 | 9 | 7.7 | 6.3 | 5.4 | 15.7 | 10.6 | 16.7 |
| | | | | | | | | |
| **Land in Crops (acres)** | 7,335,184 | 7,686,013 | 7,688,728 | 8,693,682 | 9,122,474 | 9,507,495 | 10,922,971 | * |
| **# of Acres Change** | | 350829 | 2715 | 1004954 | 428792 | 385021 | 1415476 | * |
| **% Change** | | 4.8 | 0.04 | 13 | 4.9 | 4.2 | 14.9 | * |
| **% of Canada's Total** | | | | | | | 13 | * |

* Information not yet available

Source: Statistics Canada, Census data 1976-2011.

Canada. Statistics Canada. *A statistical portrait of agriculture, Canada and provinces: census years 1921 to 2006*. January 2009. [Online]
Canada. Statistics Canada. *Number of farms, farm area, and average farm size by province, with percentage change since 2006, Canada and the provinces, 2011*. May 2012. [Online]

## Appendix G: Saskatchewan Farm Statistics 1976-2011

| SASKATCHEWAN | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Year** | **1976** | **1981** | **1986** | **1991** | **1996** | **2001** | **2006** | **2011** |
| **Total Area of Farms (acres)** | 65,511,431 | 64,116,652 | 65,728,443 | 66,386,074 | 65,653,588 | 64,903,830 | 64,253,845 | 61,628,148 |
| **% of Canada's Total** | 39 | 39.3 | 39.2 | 40 | 39 | 39 | 38.5 | 38.5 |
| **Average Acres** | 923 | 952 | 1,036 | 1,091 | 1,152 | 1,283 | 1,450 | 1668 |
| **% Increase of Acreage** | | 3 | 8.8 | 5.3 | 5.6 | 11.3 | 13 | 15.1 |
| | | | | | | | | |
| **# of Farms** | 70,958 | 67,318 | 63,431 | 60,840 | 56,995 | 50,598 | 44,329 | 36,952 |
| **# Decrease** | | 3640 | 3887 | 2591 | 3845 | 6397 | 6269 | 7377 |
| **% of Decrease from previous Census** | | 5.4 | 6 | 4.3 | 6.7 | 12.6 | 14 | 16.6 |
| | | | | | | | | |
| **Land in Crops (acres)** | 26,195,439 | 29,012,310 | 32,928,799 | 33,257,706 | 35,579,845 | 37,994,752 | 36,967,225 | * |
| **# of Acres Change** | | 281687 | 3916489 | 328907 | 2322139 | 2414907 | -1027527 | * |
| **% Change** | | 10.8 | 13.5 | 1 | 7 | 6.8 | -2.8 | * |
| **% of Canada's Total** | | | | | | | 41.6 | * |

* Information not yet available

Source: Statistics Canada, Census data 1976-2011.

Canada. Statistics Canada. *A statistical portrait of agriculture, Canada and provinces: census years 1921 to 2006*. January 2009. [Online]
Canada. Statistics Canada. *Number of farms, farm area, and average farm size by province, with percentage change since 2006, Canada and the provinces, 2011.* May 2012. [Online]

## Appendix H: Alberta Farm Statistics 1976-2011

| ALBERTA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Year** | **1976** | **1981** | **1986** | **1991** | **1996** | **2001** | **2006** | **2011** |
| **Total Area of Farms (acres)** | 49,928,771 | 47,218,170 | 51,040,463 | 51,425,111 | 51,964,360 | 52,058,898 | 52,127,857 | 50,498,834 |
| **% of Canada's Total** | 29.5 | 29 | 30.4 | 31 | 31 | 31.2 | 31.2 | 31.5 |
| **Average Acres** | | 813 | 883 | 898 | 881 | 970 | 1,055 | 1168 |
| **% Increase of Acreage** | | -.5 | 8.6 | 1.7 | -1.9 | 10 | 8.8 | 10.7 |
| | | | | | | | | |
| **# of Farms** | 61,130 | 58,056 | 57,777 | 57,245 | 59,007 | 53,652 | 49,431 | 43,234 |
| **# Decrease** | | 3074 | 279 | 532 | **-1762 (Gain)** | 5355 | 4221 | 6197 |
| **% of Decrease** | | 5.3 | .5 | .9 | **-3 (Gain)** | 9.9 | 8.5 | 12.5 |
| | | | | | | | | |
| **Land in Crops (acres)** | 18,877,471 | 20,858,765 | 22,641,092 | 22,961,142 | 23,590,033 | 24,038,861 | 23,775,509 | * |
| **# of Acres Change** | | 1981294 | 1782327 | 320050 | 628891 | 448828 | -263352 | * |
| **% Change** | | 10.5 | 8.5 | 1.4 | 2.7 | 1.9 | - 1.1 | * |
| **% of Canada's Total** | | | | | | | 27 | * |

* Information not yet available

Source: Statistics Canada, Census data 1976-2011.

Canada. Statistics Canada. *A statistical portrait of agriculture, Canada and provinces: census years 1921 to 2006*. January 2009. [Online]
Canada. Statistics Canada. *Number of farms, farm area, and average farm size by province, with percentage change since 2006, Canada and the provinces, 2011.* May 2012. [Online]

## Appendix I: Prairie Pothole Region


The Prairie Pothole Region stretches across Alberta, Saskatchewan, Manitoba, Montana, North Dakota, South Dakota, Minnesota, and Iowa.

Source: U.S. Fish and Wildlife Services. Kulm Wetland Management District. *Prairie Pothole Region*. April 2011. [Online]

# Appendix J: Organizations Across Canada Endorsing ALUS

**National**
Canadian Federation of Agriculture
National Farmers Union
Ducks Unlimited Canada
Wildlife Habitat Fund
Wildlife Habitat Canada
National Wild Turkey Federation
TD Friends of the Environment Foundation

**Manitoba**
Keystone Agricultural Producers
Association of Manitoba Municipalities
Rural Municipality of Blanshard
Little Saskatchewan River Conservation District
Manitoba Agricultural Services Corporation
Manitoba Agriculture, Food & Rural Initiatives
Manitoba Corn Growers Association
Manitoba Pulse Growers Association.
Manitoba Chicken Producers
Manitoba Canola Growers Association.
Manitoba Rural Adaptation Council

**Saskatchewan**
Saskatchewan Association of Rural Municipalities
Saskatchewan Soil Conservation Association
Saskatchewan Wildlife Federation
RM's of Colonsay, Lakeside, Spy Hill, South Qu-Appelle, Lajord, Francis, and Indian Head
Agricultural Producers Association of Saskatchewan
Provincial Council of Agriculture Diversification and Development Boards
Saskatchewan Watershed Association
Wascana and Upper Qu-Appelle Watershed Association
Upper Souris Watershed Association

**Alberta**
Alberta Beef Producers
Wild Rose Agricultural Producers
Counties of Vermillion River and Red Deer
Alberta Conservation Association
Alberta Rural Development Network

**Ontario**
Ontario Ministry of Agriculture and Food
Ontario Ministry of Natural Resources
Counties of Bruce, Norfolk, and Grey
Conservation Ontario
Innovative Farmers of Ontario
Ontario Bee Keepers Association
Ontario Federation of Agriculture
Christian Farmers Federation of Ontario
Norfolk County Land Stewardship Council
Norfolk County
Norfolk Soil & Crop Improvement Association.
Ontario Ministry of Natural Resources
Ontario Stewardship
Ontario Federation of Anglers & Hunters
Ontario Wildlife Foundation
Norfolk Field Naturalists
Ontario Fruit and Vegetable Growers' Association
Ontario Power Generation
Ontario Trillium Foundation

**Prince Edward Island (PEI)**
PEI Federation of Agriculture
PEI Department of Environment, Energy & Forestry

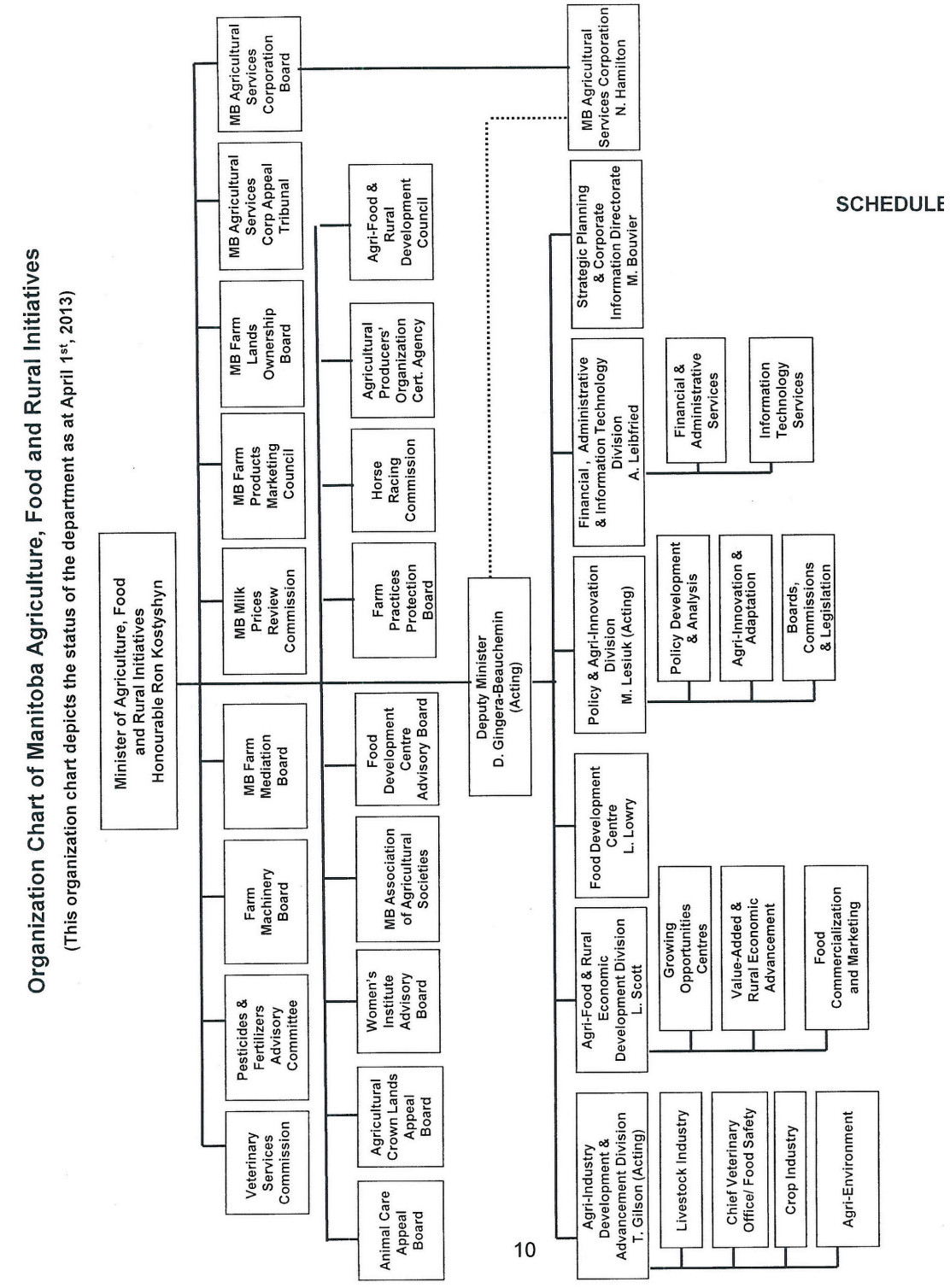
**International**
Delta Waterfowl Foundation
Long Point Region Conservation Authority
Long Point World Biosphere Reserve Foundation
Mississippi Department of Wildlife, Fisheries & Parks/Duck Stamp Program
Tennessee Duck Stamp Program

**Private Foundations**
The W. Garfield Weston Foundation
The Metcalf Foundation
The Bechtel Foundation

Note: This list of organizations is not all-inclusive but represents the majority that have partnered and/or endorsed the ALUS projects across Canada.

Source: List compiled from Robert D. Sopuck. "Alternative Land Use Services (ALUS) Case Study: Rural Municipality of Blanshard (MB) pilot project". Presentation at the Association of Manitoba Municipalities Municipal Officials Seminar. February 26, 2007. [Online] and Alternative Land Use Services. Supporters. [Online]

## Appendix K: MAFRD Organizational Chart




Source: Manitoba. Manitoba Agriculture, Food, and Rural Development. Organizational Chart. 2014. [Online]

# Appendix L: Lake Winnipeg Nutrient Loading—Sources

**Table 3: Summary of estimated nutrient loading to Lake Winnipeg (1994 - 2001) (rounded to the nearest 100 tonnes.)**
**Source: Manitoba Water Stewardship, Water Quality Section.**

| Category | Average Total Nitrogen (t/yr) and per cent of Loading | | | Average Total Phosphorus (t/yr) and per cent of Loading | | |
|---|---|---|---|---|---|---|
| **Overall annual nutrient loading to Lake Winnipeg** | **70,600 (100%)** | | | **6,600 (100%)** | | |
| **Upstream Jurisdictions** | **45,100 (64%)** | | | **3,900 (59%)** | | |
| United States (Red River) | | 19,000 (27%) | | | 2,500 (38%) | |
| United States (Souris River) | | 1,000 (1%) | | | 200 (3%) | |
| Saskatchewan and Alberta (Assiniboine and Saskatchewan) | | 8,300 (12%) | | | 400 (6%) | |
| Ontario (Winnipeg River) | | 16,800 (24%) | | | 800 (12%) | |
| **Manitoba sources** | **25,500 (36%)** | | | **2,700 (41%)** | | |
| Manitoba point sources | | 5,000 (7%) | | | 700 (11%) | |
| City of Winnipeg | | | 3,600 (5%) | | | 400 (6%) |
| All others | | | 1,400 (2%) | | | 300 (5%) |
| Manitoba watershed processes | | 11,000 (16%) | | | 1,500 (23%) | |
| Estimated natural background* | | | 7,600 (11%) | | | 600 (9%) |
| Estimated current agriculture | | | 3,400 (5%) | | | 900 (14%) |
| Atmospheric deposition directly on Lake Winnipeg | | 9,500 (13%) | | | 500 (7%) | |

* Estimated natural background loading has not been estimated for other jurisdictions.

Source: Lake Winnipeg Stewardship Board. *Our Collective Responsibility: Reducing nutrient loading to Lake Winnipeg.* January 2005. [Online]

# Appendix M: Revenues and Expenditures for Blanshard's ALUS Pilot Project

**PRELIMINARY STATEMENT OF REVENUES & EXPENDITURES**

ALUS
An Ecological Goods and Services Research Project – Manitoba

| | April 1, 2008 - March 31, 2009 | April 1, 2007 - March 31, 2008 | April 1, 2006 - March 31, 2007 | Prior Year Nov. 18, 2005 - March 31, 2006 | Project Totals To Date |
|---|---|---|---|---|---|
| **REVENUES** | | | | | |
| Manitoba Rural Adaptation Council | $ 26,635.00 | $ 43,092.50 | $ 49,055.81 | $ 30,000.00 | $ 148,783.31 |
| RM of Blanshard | $ 40,000.00 | $ 40,000.00 | $ - | $ 40,000.00 | $ 120,000.00 |
| ARDI (Transition) | $ - | $ - | $ - | $ 85,000.00 | $ 85,000.00 |
| Agricultural Sustainability Initiative | $ 102,000.00 | $ - | $ - | $ - | $ 102,000.00 |
| Delta Waterfowl (TN & MS) | $ 30,000.00 | $ 70,000.00 | $ 70,000.00 | $ - | $ 170,000.00 |
| ACAAF | $ 58,651.00 | $ 277,438.00 | $ 291,351.60 | $ - | $ 627,440.60 |
| Keystone Agricultural Producers - Gift in kind | $ 6,417.21 | $ 13,881.80 | $ 17,449.05 | $ - | $ 37,748.06 |
| MAFRI - Covering New Ground | $ - | $ 36,190.00 | $ 49,500.00 | $ - | $ 85,690.00 |
| **Total Revenues to March 31, 2009** | **$ 263,703.21** | **$ 480,602.30** | **$ 477,356.46** | **$ 155,000.00** | **$ 1,376,661.97** |
| **EXPENDITURES** | | | | | |
| Evaluation: | | | | | |
| Development of evaluation framework | $ - | $ - | $ - | $ 12,664.00 | $ 12,664.00 |
| Air photos | $ - | $ - | $ - | $ 10,000.00 | $ 10,000.00 |
| Contracted staff & expenses | $ 9,261.00 | $ 44,958.93 | $ 53,934.31 | $ - | $ 108,154.24 |
| Project Manager | $ 24,816.31 | $ 47,570.42 | $ 51,467.20 | $ - | $ 123,853.93 |
| Local Operating Expenses & Communications(CD) | $ - | $ 2,503.76 | $ 3,016.91 | $ 1,650.62 | $ 7,171.29 |
| Local Operating Expenses & Communications (MASC) | $ 6,417.21 | $ 13,881.80 | $ 19,018.50 | $ 14,085.25 | $ 53,402.76 |
| MASC Administration | $ 16,873.31 | $ 25,066.44 | $ 96,247.16 | $ 26,841.85 | $ 165,028.76 |
| Producer Payments: | | | | | |
| Wetlands | $ 190,759.82 | $ 198,140.17 | $ 199,697.50 | $ - | $ 588,597.49 |
| Riparian Areas | $ 867.25 | $ 38,171.77 | $ 34,454.75 | $ - | $ 73,493.77 |
| Ecologically Sensitive Lands | $ 36,945.90 | $ 885.66 | $ 527.50 | $ - | $ 38,359.06 |
| Natural Areas | $ 58,761.98 | $ 60,751.65 | $ 59,531.25 | $ - | $ 179,044.88 |
| Translation | $ - | $ 1,980.77 | $ 2,101.80 | $ - | $ 4,082.57 |
| Financial Management, Reporting & Auditing | $ 7,000.00 | $ 4,420.00 | $ 2,000.00 | $ - | $ 13,420.00 |
| **Total Expenses to March 31, 2009** | **$ 351,702.78** | **$ 438,331.37** | **$ 521,996.88** | **$ 65,241.72** | **$ 1,377,272.75** |
| **Revenue/Loss for Period** | **$ (87,999.57)** | **$ 42,270.93** | **$ (44,640.42)** | **$ 89,758.28** | **$ (610.78)** |

Source: Keystone Agricultural Producers. *ALUS: An Ecological Goods and Services Research Project: Preliminary Statement of Revenues and Expenditures.* Keystone Agricultural Producers, Inc., 2009.