



New Frontiers

Policy Pioneers Conference Summary Report

Kari Roberts, Ph.D.
Senior Policy Analyst

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Canada*West*
FOUNDATION

LAND STEWARDSHIP INITIATIVE

This report is part of the Canada West Foundation's *Land Stewardship Initiative*—a two-year research and communications endeavour focused on the role of public policy in facilitating land stewardship in western Canada. Land stewardship is the practice of responsible land use to ensure that natural capital is maintained or enhanced for future generations.

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This report was prepared by Canada West Foundation Senior Policy Analyst Dr. Kari Roberts. The author wishes to thank Canada West Foundation Intern Erin Mullinger for her assistance with this report. Thanks are also extended to everyone who took part in the Policy Pioneers Conference.

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I wish to express my sincere thanks to all those involved in making *Policy Pioneers: Exploring International Land Stewardship Options* such a resounding success. Both participants and funders helped to make this event a critically important piece of the ongoing dialogue on land stewardship in Canada.



Barry Worbets addresses the Policy Pioneers Conference in Calgary, Alberta.

I would especially like to thank our esteemed panel of international experts who shared a tremendous wealth of knowledge and experience, which served as a useful springboard into a wider discussion among participants about the challenges facing land use in Canada.

There is great potential for lessons learned in other jurisdictions to be imported into the local context and to help inform the much needed discussions about land use and ecological sustainability into the future. Our expert panel members are truly policy pioneers, as are the many participants and stakeholders who attended the event and offered their own wisdom and experience to the wider discussion.

Planning for this event was driven by a desire to effect a true “meeting of the minds,” marshalling insight and ideas with an eye to thinking about the policy implications of the notion of land stewardship. There is much work to be done, but I hope the conversation at *Policy Pioneers* has only just begun and that this dialogue continues to lead us toward sustainable communities and sustainable futures.

Sincerely,

A handwritten signature in black ink, appearing to read "Barry Worbets".

Barry Worbets
Canada West Foundation Senior Fellow

P R E F A C E

Roger Gibbins

Canada West Foundation President and CEO

The *Policy Pioneers* conference illustrates the catalytic role that international experience can play in Canadian public policy discussions. Of course, this is not to suggest that Canadians are devoid of creative policy ideas, and certainly the conference participants emphatically demonstrated that this is not the case. However, there is something about digging into the international experience that gets the juices flowing, that sparks fresh thoughts about the Canadian policy experience.

Sometimes we may be tempted to apply international experience directly to the Canadian case, to import policy models that have worked well elsewhere. More generally, the international experience helps us see the Canadian policy landscape

through different eyes, and those different eyes lead in turn to greater introspection, creativity, and a willingness to experiment, to shake up the policy status quo. In these ways the *Policy Pioneers* conference helped inject not only new ideas, but also new vigor into the Canadian policy debate on land stewardship.

At the same time, none of this would have worked if the Canadian policy community was not open to fresh ideas. In this sense, the conference timing was ideal because it caught the wave of new policy attention to land stewardship. To mix metaphors, the policy community was primed, and indeed pumped. Pressures



Roger Gibbins opens a panel at the Policy Pioneers Conference, October 29, 2007.

on the Canadian land base, and on rural and agricultural communities, have reached the point where a more effective policy response is imperative, just as the rapid growth of urban communities is creating a pressing need for more effective management of the urban fringe.

Perhaps nowhere in Canada do all of these policy pressures converge with greater force than in Alberta. Although *Policy Pioneers* focused on policy opportunities and challenges across western Canada and brought together participants from all four western provinces, the Calgary location for the conference was fortuitous. The Alberta government is in the throes of creating a provincial land use framework, and in that process many of the ideas raised at the conference, many of the international models, and indeed many of the conference participants, are playing important roles. Thus the *Policy Pioneers* conference was able to fuse theory and practice just as it created a dynamic interface between the international policy experience and the immediate land stewardship policy challenges facing regional, provincial and local communities. In short, the planets were truly aligned on October 29, 2007 in Calgary!

1. Introduction

On October 29, 2007 the Canada West Foundation hosted *Policy Pioneers: Exploring International Land Stewardship Options*. The conference was designed to investigate and understand best practices and policy options available to land users and managers to achieve environmental sustainability and agricultural viability in western Canada. The one-day event brought together pioneers of innovative public policy with stakeholders and decision-makers. Presenters offered international insight into how to reconcile environmental, social and economic objectives in planning for the long-term sustainability of our natural capital.

The conference was designed to create an opportunity for stakeholders and government representatives to learn from the experiences of other jurisdictions. Over 80 participants heard presentations from five international experts from Australia, Europe and the US, and then participated in a series of facilitated roundtables in which they had the opportunity to share and discuss land use and sustainability issues in their own communities.

The presentations highlighted a diversity of experiences and perspectives and served as an excellent launching point for an important discussion about the way we understand and manage our natural capital and how to design public policy that will best enable land users to act in ways that replace, maintain or build natural capital assets to ensure the sustainability of our communities into the future. Throughout this fruitful discussion, a number of recurring themes presented themselves, which may provide useful advice for policy-makers and land managers moving forward. These themes are discussed below, following an overview of the presentations from the panel of international experts.

2. Overview of Presentations

Dr. David Brand, Managing Director, New Forests (Australia)

Dr. Brand concentrated his presentation on payments for ecosystem services, or the assignment of value to

environmental assets based on what the land can provide (traditionally, land has been valued and thus priced as a function of some form of resource extraction and/or development such as mining, agriculture, or natural gas). This approach was problematic because it did not take into account the other services that the land can provide, including its role in the carbon cycle and water purification. Considerations such as conservation and the importance of global biodiversity were insufficiently acknowledged and were undervalued.

In the past, those services that could not be priced, were not valued. But this is no longer the case. There is momentum building toward investment in natural infrastructure, in much the same way we invest in hard infrastructure. Climate change, land and water degradation, and the loss of biodiversity have necessitated a change in the philosophy of land management and this has generated an awareness of the need to create market-based solutions to address chronic environmental problems, such as carbon emissions, biodiversity conservation, and water quality and preservation.

As is well known, carbon dominated the Kyoto Protocol, and much attention has been paid to the need to reduce carbon emissions globally such as the establishment of a carbon trading regime in the European Union. When it comes to biodiversity conservation, there have been efforts to create wetlands mitigation banks, endangered species banks, and in the US, to introduce legislation establishing a wetland or endangered species credit system. And when it comes to water, we have seen a focus on new infrastructure to deal with water quality, and also an emphasis on a more appropriate form of apportioning water for high and low value uses.

In the past, conservation was treated as a public good, meaning that governments were held responsible and paid people for conservation. We are now seeing a process that brings private investors into the market and attracts long-term institutional investors (for example, \$14 billion has been invested in the EU carbon market in the last two years). Dr. Brand explained the conversion of ecosystem

services to “eco-products,” which, in Australia, has meant the creation of carbon property rights, the linking of these with greenhouse gas (GHG) abatement schemes, and the effective conversion of carbon into a product itself. And the same can be said for water quality, as those who take steps to improve water management are paid for their actions. Indexed and monetized systems can be created to rate improvements in biodiversity. Rather than simply investing in timber flows, for example, investors can compete for lands that will provide other sources of revenue through land management, credits and trading. This necessarily changes the way individual farms are managed, and it also changes land management groups and shifts relationships. In effect, it creates a new kind of tension that promotes sustainability.

Ultimately, ecosystem markets can help drive toward sustainability, as they give financial incentives for high value uses of land and toward environmentally and fiscally sustainable economies. With pricing comes protection, and as ecosystem services are paid for, a shift in people’s priorities follows closely behind.

Link to Dr. David Brand’s presentation entitled, “Payments for Ecosystem Services and the Future of Land Management.”
http://www.cwf.ca/V2/cnt/presentations_index.php

Dr. Wendy Craik, Chief Executive, Murray-Darling Basin Initiative (Australia)

Dr. Craik shared her experience with the Murray-Darling Basin Commission (MDBC) in Australia and the role of regulation of water in response to severe drought in Australia in the past decade. Drought and low in-stream flows (due to a decrease in rainfall) have left a shortage of water for urban needs (Adelaide depends heavily upon water from the Murray-Darling River), and for agricultural uses. There is a high demand for water and conflicting interests among stakeholders. Due to the urgency of the water situation, a ministerial council was formed. The council is comprised of the ministers responsible for land, water, and environment/conservation at all levels of government, with a commission headed by an independent president as the executive arm.

Dr. Craik reported that the Basin Commission has been relatively successful in day-to-day river management

(operations, damming, water accounting) and also with respect to sustainable resource development (capping water diversion, monitoring salinity programs and promoting native fish restoration programs). With respect to governance, Dr. Craik noted that the MDBC operates on a unanimous consent decision-making model, which can at times delay decisions. For example, it took 22 years for the Commission to be formed in the first place, and 10 years each for surface water diversion caps and environmental flows to be established. Yet, despite sometimes delayed decision-making, the Commission has been an overall success, evidenced by its strengths in community consultation, independent auditing, and ensuring an ongoing financial commitment to water quality and supply.

With respect to governance, though the decision-making process can sometimes be slow, this leads to durable decisions that stand the test of time. Decision-making is deliberate, with ample stakeholder consultation and the goal of consensus ensures that parties are satisfied with decisions and will work to support and implement them. Dr. Craik attributes the durability of decisions to the fact that lowest common denominator decision-making does not occur (a phenomenon often found with quick decisions that are influenced more heavily by political circumstances). Long time frames for decisions and for implementation lead to longer-term thinking and are often better able to circumvent politics. This is crucial when the stakes are high; water is a valuable and potentially scarce resource and many communities rely upon the Murray-Darling River for their sustainability. Effective governance and water management have enabled this to continue.

Link to Dr. Wendy Craik’s presentation entitled, “The Murray-Darling Basin Commission: Leading Water Reform in Australia;”
http://www.cwf.ca/V2/files/Wendy_Craik_Policy_Pioneers_Oct_07.pdf

Craig Evans, Agricultural, Land Use and Renewable Fuels Consultant (United States)

Mr. Evans talked about his experience with land stewardship in Florida through the Rural Land Stewardship Program (RLSP). Above all, he stressed the importance of flexibility, adaptability, and the recognition of local needs in effective

land stewardship. He discussed this within the context of explaining that the RLSP is not a Transfer of Development Rights (TDR) program, but is rather aimed at providing stronger incentives to encourage landowners to be better stewards.

In the RLSP, economic incentives for land conservation are emphasized and there is an attempt to eliminate the fragmented and ad hoc land use plans that are common in areas facing high growth pressure. The RLSP does not change existing land use plans or zoning, nor does it pit conservation and development interests against each other. It involves community consultation to determine what an area should look like and it assigns land values based on market prices and a series of scored input data that includes giving credit for attributes that do not necessarily have market values. Local stakeholder groups have input into how land should be valued and high scored areas are designated stewardship lands.

This is good for landowners because they benefit financially. It benefits developers because they can purchase land at a lower cost and can purchase credits from the landowners. It benefits the public good because public areas are protected. In addition, good planning only needs to be done once rather than on an ongoing basis, and resources are conserved at a nominal cost to the public (the cost of setting up the RLSP in Florida was \$800,000).

Link to Craig Evans' presentation entitled, "New Perspectives on Land Stewardship and Use:" http://www.cwf.ca/V2/files/Craig_Evans_Policy_Pioneers_Oct_07.pdf

Gloria Flora, Executive Director, Sustainable Obtainable Solutions (United States)

Gloria Flora called for the use of both head and heart when it comes to addressing land stewardship. There has long been a question of how to integrate the public into the management of public lands—their lands, according to Flora. She believes that a further shift is required in thinking about landscapes and in treating the landscape as existing for the benefit of *everyone*. Natural resource decisions are not simply science decisions; they are social decisions. For instance, more comprehensive thinking on the part of the US Forestry

Service in particular is required, as there is a tendency to think about forests for what they produce (timber) with inadequate consideration of their role in the ecosystem. Bringing the public in and educating them, along with landowners, has been critical in the pursuit of collaborative stewardship, which emphasizes human relationships to the environment.

Ms. Flora stressed the need for collaborative stewardship today, locally and globally, as we are at a crisis point when it comes to the limits of the environment. We are testing these limits through the burning of fossil fuels, population increases and the alarming rate of land conversions, among other things. And there is a social justice side of this that needs to be considered. The pressures developed nations place upon the environment have deleterious effects on poorer nations, which can be observed in significant health and economic disparities. Thus, for Flora, collaborative land stewardship is an issue of survival and it can no longer be left to governments to instigate. Landowners, communities and environmental groups have a stake in this and an obligation to undertake joint efforts to manage land and resources better and to support the joint goal of restoration and conservation. Creating awareness is part of this, as people need to be armed with better education about how sustainability is linked to human activity.

Ultimately, we need to be smart about sustainability, but we must also apply qualitative (not just quantitative) values to the land. For example, we need to speak about landscapes the way we do about people; rather than physical descriptions, we need to alter our language to one of how the land enters our lives at the level of feelings, memories and stories. We must revel in the beauty of landscapes to find meaning in the ecosystem. Flora argues that, if we do not do this, and continue on our current path, we take something away from future generations that cannot be quantified. Thus, there is a *moral* imperative to collaborative land stewardship.

Wilfred Legg, Head of Agricultural Policies and Environment Division, OECD Trade and Agriculture Directorate (France)

Dr. Legg spoke of agricultural land use policy from the perspective of the Organization for Economic Cooperation and Development (OECD). He explained that the trend in

the OECD countries (in which agriculture comprises 40% of the total land area and water comprises 45%), is toward increased productivity and this has meant that land not used for agriculture is being used for biofuels production (which distorts markets and land use). Overall policy support to agriculture differs by country, as some offer higher subsidies and greater supports to farmers than others do. As well, many support policies artificially raise land values, which deters entry into farming and can impede policy reform. Ultimately though, because of the high demand for biofuels, which fetch a high price, this is a lucrative industry for landowners. And while some governments pay lip service to concern over too much biofuel production, and the subsequent potential rise of food prices in the developing world, and the resulting impact upon the environment of the use of agricultural land for fuel production, their support policies do not reflect this alleged concern.

The OECD advocates policy reform that would decouple support from production, allow for production flexibility, and allow greater support for other forms of agricultural production besides biofuels. There is an opportunity to target land stewardship to address issues of resource depletion and pollution and this can be done through policy instruments such as tighter regulation, economic incentives, developing markets, and through research and development. Legg advocates a carrot and stick approach to land stewardship in which financial incentives toward conservation are provided, but regulatory punishments for non-compliance, for example, would also be in place. A combination of both incentives and punishments—carrots and sticks—is needed. But there are a lot of decisions to be made going forward such as choosing and setting targets, identifying recipients, selecting carrots and sticks, setting payment/fine levels, and creating markets.

Dr. Legg claims that policy coherence is needed. Government support for agricultural land use must take into account sustainability and food supply. It has been a luxury to say we have plenty of food and we need only focus on land conservation. The biofuels trend is changing the nature of agricultural production, which could have a deleterious effect on the sustainability of both the environment and human lifestyles. In some cases, it is a question of survivability.

Link to Dr. Wilfred Legg's presentation entitled, "Agricultural and Agri-Environmental Policy Impacts On Land Use: An OECD Perspective:" http://www.cwf.ca/V2/cnt/presentations_index.php

3. Key Themes

In his opening address, Alberta Minister of Sustainable Resource Development Dr. Ted Morton set the tone for the day by reminding participants that Alberta is facing a period of unprecedented growth, and thus, effective land stewardship has never been more important than it is today. This statement has applicability beyond Alberta and was reflected in the remarks of the international presenters.

All presenters reiterated the importance of land stewardship as a top priority. With this foundation established, the question and answer session following the presentations, as well as the moderated roundtable sessions that followed, targeted the challenges of explaining the need for land stewardship to the public and policy-makers and the best means for measuring successful land stewardship. Participants were asked to consider the following questions:

1. Given the presentations you heard this morning and your own knowledge and experience, which land stewardship policy options are the most promising? Which ones are the "strong horses" in a western Canadian context?
2. What are the main barriers to implementing successful land stewardship policies in western Canada? Is it a matter of program design, a lack of information, a lack of public support, economics, or other factors? How can these barriers be overcome?
3. More specifically, given the multitude of priorities facing policy-makers, how do we achieve "policy traction" on land stewardship? Why is it important? What is the pitch to the public and to policy-makers?

These questions launched a fruitful discussion of the challenges to land stewardship. Throughout this discussion, a number of recurring themes presented themselves.

Much can be learned from the experiences of others

There was a great deal of interest among participants in the international experiences shared by the expert panel. One participant noted that this could help to go some distance toward setting up an acknowledged set of best practices for land stewardship. After all, best practices work for industry, so perhaps land management could be framed in the same way.

Much information can be gleaned from other areas that have dealt with similar issues. Two examples that emerged from the discussion were the possibility of importing lessons learned from Florida's RLSP into addressing pressures along Alberta's Highway 2 corridor, and the possibility of setting up a water commission in the South Saskatchewan River Basin modeled after Australia's Murray-Darling Basin Commission. There was an expressed desire to get out ahead of problems and to be prepared to address challenges to the sustainability of our ecosystems before they reach crisis levels (if they have not already done so). Learning from other jurisdictions will help western Canadians to do this.

Don't just sweat the small stuff— do something!

On the subject of moving forward with a land stewardship agenda, one participant pleaded "just do *something*." There are so many issues wrapped up in land stewardship and the protection of natural capital that getting started is tricky and we risk putting it in the "too hard" basket. But something must be done and soon—on this there was widespread agreement among conference participants. But that said, there is also a concern that it is easy to get wrapped up in the small details, due to the sheer abundance of them and also to the fact that there are many stakeholders involved, with varying interests and capacities. It is sometimes difficult to move past the small stuff to think in broader terms about the big picture and what we want to accomplish in the end. The small issues matter, but so do the larger issues of target setting. It would be a shame to allow the small stuff to get in the way of the larger goal. This may be where the role

of governments becomes integral and this is discussed in a separate section below.

Patience, persistence and flexibility are critical

In the words of one participant, "there are many good initiatives, but they have a short shelf life. We never get to see what they can really do—we need more patience." Policy options need to engender patience, persistence and flexibility in order to work. Coming up with the right formula for land stewardship is not an easy task, or it would have already been accomplished. There are so many interests and stakeholders that coordinating efforts, finding solutions and even working toward the same goal, are difficult. It is the tallest mountains that take the longest to climb and often require the most tools, but the rewards for persistence are great. Reaching the summit requires "stick-to-it-ness" and so, too, does navigating the complex web of interests under consideration in the land stewardship dialogue.

Valuing ecological goods and services: carrots but not sticks

There was much discussion throughout the day about the importance of incentives. There seemed to be agreement that rewards for existing good practices are necessary in the hope of taking away the incentive to degrade the environment. In the words of one participant, "be sure to recognize what people are already doing and avoid disincentives" (e.g., a farmer drains a wetland so he can be rewarded for putting it back).

There seemed to be an understanding that financial incentives were key, that money is an important motivator. Market-based solutions can be effective, but the responsibility for land stewardship should not be left solely to the market, in part because markets have a tough time with issues that are intergenerational, or that need to be calculated over the long-term. Voluntary market-based incentives driven by consumers are certainly a step in the right direction, but are not alone capable of addressing the scale of problems currently being faced. There are political challenges in the advocacy of moving beyond market-based disincentives, in that, depending upon who is in power, the political will may not always be present to move beyond market-based structures.

Yet many participants felt *some* form of government intervention is needed, particularly when it comes to assigning financial values to environmental goods and services (EGS). On this there was also agreement among participants: price changes behaviour, and thus, the valuing of EGS is needed and this value should be calculated in dollars. This would, with hope, go some distance toward changing the way people think about EGS. After all, it is difficult to convince people to conserve something that they do not value. This is not to say that there is no value placed upon the environment, but rather that it is not valued tangibly. Giving EGS a hard value means that people become aware of the costs of abuse and will begin to alter their habits accordingly. Ultimately, while many participants believed that the use of positive incentives—carrots—was a good idea, there was some reluctance to see disincentives—sticks—in place. Others felt that there was a balance to be found between the two. Whatever the mix, finding a way to encourage or compel land users to view the ecosystem as possessing a hard value will undoubtedly play a role in bringing about needed change.

Education and awareness can be improved

Related to the issue of valuing EGS is educating governments, stakeholders and the public to raise awareness of the limits of our ecosystem and the merits of investing in more efficient means of using and maintaining EGS. One participant noted that, historically, the most successful efforts toward conservation have been those that have had public awareness and education as their cornerstone.

With respect to public perception, it seems to be a widely held impression that EGS come at a high cost and create bureaucracies; thus they are of little interest to taxpayers and it is difficult to gain public support for certain environmental initiatives. Put simply, buyers do not know what they are buying when it comes to EGS—urbanites may not fully appreciate the precise value of landscapes; they may not grasp where their “life support” is coming from. But often it is the case that failure to invest in EGS can be more costly down the road. EGS can be considered soft infrastructure, and is harder to explain to the taxpayer. As one participant put it, “suddenly having to confront paying for something that we thought was free creates a barrier.”

That being said, it is often cheaper to maintain soft rather than hard infrastructure. For example, it would be cheaper to remediate the land surrounding a city’s water supply than it would be to build a new water treatment plant. Addressing potential flood control problems, drought protection, and ensuring secure water sources can be done by investing in soft infrastructure, rather than waiting until a crisis occurs, requiring expensive hard infrastructure solutions.

A large component of public awareness and engagement is the social capital that is both needed for, and is the result of, public education. Philanthropy can play a significant role in conservation, but we do not have the wealth base in Canada for alone to drive the process of injecting much needed funds into ecosystem protection and into changing attitudes to ensure this outcome. Environmental organizations have been able to raise a lot of money for conservation and consciousness raising, but this is only the beginning. And this is where, according to many participants, governments must play a pioneering role in land stewardship policy.

Governments must play a leadership role and provide regional vision

There is a role for individuals, landowners, the private sector and governments when it comes to creating and seizing land stewardship opportunities. But, while all have an important responsibility to rebuild, protect and maintain landscapes, governments will have to play a key leadership role. On one level governments can play an important regulatory role by creating tax disincentives for poor land stewarding, creating a market for trading EGS, and also providing financial incentives for good stewardship.

Beyond simply throwing money at the problem, there are opportunities for leadership. As one participant noted, “there are limits to land use, and we can’t do everything. Hard choices will have to be made, and this is where governments come in. Do we want golf courses or cornfields? Decisions will have to be made.” Some felt the private sector was waiting to be engaged on this issue but that the resource sector is incredibly competitive and thus movement will have to come from governments first to incite action. One way to think about this is with a “team of horses” analogy. There are many horses at the gate anticipating the race, but their

efforts must be harnessed by a central body that can set goals, provide seed money for initiatives, invest in social capital (e.g., support volunteer stewardship groups and environmental groups working toward conservation), and even play a limited regulatory role in implementing penalties for non-compliance.

There is much land to protect and not enough dollars presently to do it. Environmental groups are doing good work, but philanthropy and stewardship groups cannot do it alone. There is a need for publicly-funded research into what the public wants, so that objective choices can be made. Thus, when it comes to goal setting, governments must determine “what are the social objectives? What does society want? Where is the value? How quickly should we respond to urgent crises we currently face with respect to sustainability? How can we harness the horses and bring about needed change?”

With so many stakeholders and so many interests to account for, there may be a need for some form of regional governance to address, among other things, current and future land use and the coordination of regional policies to ensure the protection of shared resources to which political boundaries do not apply. After all, many of the programs discussed by the international speakers have met with success by operating with a regional focus.

Participants seemed to agree that, at least in Alberta, we truly are facing a crisis in our ecological infrastructure and that this may mean it is time to consider an enhanced role for the provincial government when it comes to defining ecological boundaries and making sure these govern any future development and planning decisions. This is a tall order, and may be controversial, but if we have indeed reached a crisis point ecologically, then this may be the tipping point toward implementing policies that ensure that sustainability and ecological infrastructure are top of mind. Long-term planning over time was thought to be the key; there are no short term fixes. Thus coordinating regional goals and initiatives was thought to be an important step toward getting land stewardship right in the long-term.

The subject of regional coordination is potentially divisive, as governments and stakeholders are sometimes hesitant to relinquish authority over local decisions, especially when it comes to land decisions, as these are inherently local issues. And while this is an important consideration, some participants felt that the current institutional capacity in Alberta is not sufficient to integrate the many land stewardship programs and policies and that this does not enable quick action to address the crisis in its ecological infrastructure.

Thus, the toolkit for doing land management better and for coordinating these goals across the region needs to be expanded. But the suite of policy tools that would best achieve this outcome was left undefined among participants, though there did seem to be some wide support for local control over land decisions under the umbrella of provincial leadership. What was agreed upon was that whatever the approach taken, there was a need for durable, flexible decisions that could withstand changes in political circumstance. Determining the way forward will be tricky, but it seemed to be agreed upon that there is a role for provincial governments to play in ensuring that our landscapes will be protected and our ecology sustained.

Change will require sacrifice

Communities in western Canada seem to have been developing with a pro-growth, pro-automobile, anti-limit mentality. Some participants argued that unless and until we change our community styles to become less car-dependent, we will be unable to reach the goal of ecological sustainability.

It was suggested that, in Alberta, political culture may be a deterrent to understanding that we are coming up against our ecological limits. This is due to what one participant called a “frontier mentality,” which refers historically to the luxury of limitless resources coupled with the sentiment of limitless possibility. Therefore, if we do not communicate to Albertans that we are indeed coming up against our limits with respect to how we use, maintain, and rebuild our landscapes, then they will be less likely to feel that we need a land stewardship program. Change and the need for it must be better communicated to Albertans in order to persuade

them of the importance of some of the sacrifices that may need to be made to ensure our future sustainability.

But it is not simply individual Albertans that must make changes. Developers and planners, too, will have to look at growth differently; car-dependent communities may need to be reconsidered, and improvements in rapid transit systems to reduce reliance upon the automobile may also be required.

But the automobile is not the only problem. There was also discussion of the issue of off-highway vehicle (OHV) use such as all-terrain vehicles (ATVs). Those who are using ATVs are not always responsible users of the land and thus public education, in particular in urban areas, is needed. Urban dwellers often are well-versed about the importance of green areas in their cities, but may not possess an understanding of the full picture and of the impact of recreational activities on landscapes. This may mean changes to behaviour will be required and sacrifices may have to be made in the interests of the sustainability of our ecosystem and of our landscapes.

4. Conclusion

We have no doubt reached the crisis point in western Canada with respect to our landscapes, how we use land, and our ability to lead sustainable lifestyles in sustainable communities. But the challenge of bringing about change is an uphill battle when it is difficult to place a tangible value on ecological assets. What became clear from the discussions at the *Policy Pioneers* conference is that there is a need to convince the public that we can no longer continue operating under the assumption of cost-free land and ecosystems. There is now a price to be paid for our past practices, which have degraded our landscapes, and there will be a heavy cost associated with a business-as-usual approach to the way we use land in the future.

There seemed to be a collective call for an ethic of land stewardship among conference participants that is present in some circles, but not among the public at large. We can implement policies that reflect our environmental limits, but these policies will only be as strong as the public commitment

underscoring them. The real test of any policy will be its ability to leave a legacy of an ethic of stewardship, and to affix a real value to landscapes and to our eco-infrastructure. For many this is a non-political issue in that it transcends political affiliation.

While reaching this goal of greater land stewardship is challenging given the wide range of stakeholders, land-uses and political factors involved, there are sound policy instruments available to governments. Some of these are market-based and could come in the form of credits or trading systems, and others involve regulatory approaches. It was the predominant view among participants that policy traction is possible if governments provide the vision, and if the various stakeholders are consulted and are given the opportunity to work together. Governments, landowners, the private sector and environmental groups all have a role to play. Some of the best ways to ensure policy traction for land stewardship programs are to promote stewardship collaboration through establishing common ground among stakeholders, and to create linkages to the landscape for urbanites to help bridge the urban/rural divide which is growing deeper over time.

At the end of the day, stewardship is cheaper than the alternative. And while we may have lacked a singular trigger to drive the land stewardship debate in the past, we may now have reached the tipping point as far as our ecological limits are concerned, which may itself be the most important motivator for change. This event was an important step toward this goal and toward furthering the dialogue among today's policy pioneers about land stewardship in western Canada. ■

Appendix A: Speaker Biographies

Dr. David Brand, Managing Director, New Forests (Australia)

Dr. Brand has over 25 years of experience in public policy, international affairs and business management. He founded and is the current Managing Director of New Forests in Australia, a carbon neutral forestry investment management and advisory business specializing in institutional and private equity investments that generate returns from traditional timber products and from environmental assets, such as carbon, biodiversity and water. He currently sits on the board of US Forest Trends and Environment Business Australia and was a previous Executive General Manager of State Forests with New South Wales (who actively supported carbon trading), as well as a former Executive Director of Science and Sustainable Development with Canadian Forest Service. Among other roles, he has advised Natural Resources Canada on reforestation of marginal agricultural lands as part of an offset trading program, was part of the committee that designed the California Climate Action Registry Forestry Protocols, as well as advising Australian and US government agencies on carbon trading and environmental markets. Dr. Brand brings a wealth of knowledge and experience to public policy to support market mechanisms for land stewardship.

Dr. Wendy Craik, Chief Executive, Murray Darling Basin Initiative (Australia)

Dr. Craik took up her position as Chief Executive of the Murray-Darling Basin Commission (MDBC) in August 2004. Prior to this, she was President of the National Competition Council, Chair of the Australian Fisheries Management Authority and Chair of the National Rural Advisory Council. Other former positions include Chief Executive Officer of Earth Sanctuaries Ltd, a publicly listed company specializing in conservation and eco tourism, Executive Director of the National Farmers Federation, and Executive Officer of the Great Barrier Reef Marine Park Authority. She has also worked as a consultant for AcilTasman Consulting. Dr. Craik is a member of the Board of the Foundation for Rural and Regional Renewal. She has been a member of a variety of other boards and advisory councils. Dr. Craik was awarded a Member of the Order of Australia in 2007 for her contribution to natural resource management and rural policy.

Craig Evans, Agricultural, Land Use and Renewable Fuels Consultant (United States)

Craig Evans has been involved in projects to: improve cooperation between private landowners and government agencies in protecting essential habitat of endangered species and other ecological resources on private land; develop successful approaches enacted in state law to “harness” the market economy to pay landowners for natural assets on their land and the ecological services they provide (thus turning environmental liabilities into assets); conduct economic impact studies describing the contributions of agriculture to local economies in eight Florida counties, and address the economic contributions and deficits caused by different types of land uses. He is the author of “A New Look at Agriculture,” a concept paper funded by the US Department of Agriculture that describes the obstacles faced by Florida’s agricultural operators, which suggests more than 250 ways to overcome these obstacles and proposes 15 priority actions for attention; addresses national US Farm Bill legislation (2002 and 2007) focusing on programs to promote conservation and facilitate development of renewable energy options, develops recommendations aimed at maintaining the economic and environmental viability of agricultural operations and rural lands, and develops a Florida agricultural operation to grow “energy crops” and build a biorefinery using an advanced gasification/fermentation technology to produce cellulosic ethanol at a commercial scale.

Gloria Flora, Executive Director, Sustainable Obtainable Solutions (United States)

Gloria Flora worked with the US Forest Service for over 22 years and now runs a nonprofit environmental organization working on public land stewardship primarily focused on the western US. She has won numerous awards and accolades including being

selected as one of the nation's top environmentalists by *Vanity Fair* magazine in 2004. As a Forest Supervisor for many years, she is well aware of the challenges policy-makers face on public land management. She offers policy-makers and the public readily achievable solutions for land stewardship as well as an ethic for understanding the nuances of working with communities for healthy ecosystems and economies.

Wilfrid Legg, Head of Agricultural Policies and Environment Division, OECD Trade and Agriculture Directorate (France)

Wilfrid Legg currently works in Paris where he utilizes his expertise on agricultural and environmental policy to measure and evaluate agricultural policy developments, and to analyze the links between agriculture and the environment. He leads a small team of analysts who are exploring policy options and market approaches to improve the environmental performance of agriculture while ensuring market competitiveness in the global economy.

Abeghe, Charles	<i>Daranta International Inc.</i>	Legg, Wilfred	<i>OECD Trade and</i>	Szumigalski, Tony	<i>Government of Manitoba</i>
Andrews, David	<i>Delta Waterfowl</i>		<i>Agriculture Directorate</i>	Taylor, Don	<i>Saskatchewan Association</i>
Angus, Jeremy	<i>Government of Manitoba</i>	Leggat, Keith	<i>Government of Alberta</i>		<i>of Rural Municipalities</i>
Baird, Julia	<i>University of Saskatchewan</i>	Lemieux, Eilish	<i>Government of Alberta</i>	Thoroughgood, Paul	<i>Ducks Unlimited Canada</i>
Bank, Gary	<i>Agriculture and Agri-Food</i>	LeRoy, Sylvia	<i>Government of Alberta</i>	Uytterhagen, Shelley	<i>Carthy Foundation</i>
	<i>Canada</i>	Lynch, Tyler	<i>Saskatchewan Association</i>	Vanin, Candace	<i>Agriculture and Agri-Food</i>
Barrett, Morley	<i>Ducks Unlimited Canada</i>		<i>of Rural Municipalities</i>		<i>Canada</i>
Belcher, Kenneth	<i>University of Saskatchewan</i>	MacLeod, Gael	<i>Alberta Real Estate</i>	Venema, Henry David	<i>International Institute for</i>
Bjorge, Ron	<i>Government of Alberta</i>		<i>Foundation</i>		<i>Sustainable Development</i>
Bollinger, Jillian	<i>Canada West Foundation</i>	McBeth, Darlene	<i>Canada West Foundation</i>	Walters, Dennis	<i>AltaLink</i>
Brand, David	<i>New Forests</i>	McClinton, Blair	<i>Saskatchewan Soil</i>	Wetter, Les	<i>Ducks Unlimited Canada</i>
Brennan, Casey	<i>Wildsight</i>		<i>Conservation Association</i>	Winfield, Evangeline	<i>Government of Alberta</i>
Buckley, Harvey	<i>Action for Agriculture</i>	Morton, Hon. Ted	<i>Government of Alberta</i>	Wirtanen, Kevin	<i>Government of Alberta</i>
Campbell, Carolyn	<i>Fall Line Systems</i>	Mullinger, Erin	<i>Canada West Foundation</i>	Wishart, Ian	<i>Keystone Agricultural</i>
Chiasson, Cindy	<i>Environmental Law Center</i>	Murray, Keith	<i>Alberta Forest Products</i>		<i>Producers</i>
Craik, Wendy	<i>Murray-Darling Basin</i>		<i>Association</i>	Wispirski, Brenda	<i>Beaver Hills Initiative</i>
	<i>Commission</i>	Nelson, Jacqueline	<i>Alberta Stewardship</i>	Worbets, Barry	<i>Canada West Foundation</i>
Demulder, Bob	<i>Alberta Chamber of</i>		<i>Network</i>	Zaremba, Lori	<i>Canada West Foundation</i>
	<i>Resources</i>	Nicol, Avelyn	<i>Government of Alberta</i>	Ziegler, Kenton	<i>Agriculture and Food</i>
Edwards, Cynthia	<i>Ducks Unlimited Canada</i>	Paterson, Brent	<i>Government of Alberta</i>		<i>Council</i>
Esquitin, Miriam	<i>Agriculture & Food Council</i>	Pearce, Alison	<i>Government of British</i>	Zimmerling, Todd	<i>Alberta Conservation</i>
Evans, Craig	<i>Bio-Business Support</i>		<i>Columbia</i>		<i>Association</i>
	<i>Services</i>	Pickering, Brad	<i>Government of Alberta</i>		
Ewaschuk, Ernie	<i>Land Stewardship Centre of</i>	Richardson, James	<i>CWF Board Member</i>		
	<i>Canada</i>	Roach, Robert	<i>Canada West Foundation</i>		
Fitch, Lorne	<i>Cows and Fish Alberta</i>	Roberts, Kari	<i>Canada West Foundation</i>		
	<i>Riparian Habitat</i>	Ross, Rick	<i>Canadian Water Resources</i>		
	<i>Management Society</i>		<i>Association</i>		
Flora, Gloria	<i>Sustainable Obtainable</i>	Roy, Larry	<i>Alberta Research Council</i>		
	<i>Solutions</i>	Schmitt, Kim	<i>The Alberta Environmental</i>		
Gabor, Shane	<i>Ducks Unlimited Canada</i>		<i>Farm Plan Company</i>		
Gibbins, Roger	<i>Canada West Foundation</i>	Scott, Richard	<i>Government of BC, Ministry</i>		
Good, Kim	<i>Miistakis Institute for the</i>		<i>of Agriculture and Lands</i>		
	<i>Rockies</i>	Seiferling, Morris	<i>Government of Alberta</i>		
Greenaway, Guy	<i>Miistakis Institute for the</i>	Simpson, Larry	<i>Nature Conservancy of</i>		
	<i>Rockies</i>		<i>Canada - Alberta & the</i>		
Gumienny, Darrell	<i>Agriculture and Agri-Food</i>		<i>North</i>		
	<i>Canada</i>	Smith, Dean	<i>Agriculture and Agri-Food</i>		
Hamilton, George	<i>Courtenay Residence</i>		<i>Canada</i>		
Harker, Harry	<i>Planning Institute of BC</i>	Smith, James	<i>Mancroft Group</i>		
Hay, Stacey	<i>Ducks Unlimited Canada</i>	Spicer-Rowe, Kelsey	<i>Alberta Riparian Habitat</i>		
Heck, Nikki	<i>AltaLink Management Ltd.</i>		<i>Management Society</i>		
Hill, Morgan	<i>Government of Alberta</i>		<i>- Cows & Fish</i>		
Horning, Curt	<i>Government of Alberta</i>	Sprague, Grant	<i>Government of Alberta</i>		
Joyce, Peter	<i>Government of Canada</i>	Stark, Carole	<i>Chinook Institute for</i>		
Knopff, Rainer	<i>University of Calgary</i>		<i>Community Stewardship</i>		
Kryzonowski, Len	<i>Government of Alberta</i>	Strankman, Peggy	<i>Canadian Cattlemen's</i>		
Leeder, Paul	<i>Alberta Sustainable</i>		<i>Association</i>		
	<i>Resource Development</i>	Swinnerton, Guy	<i>ARPA</i>		

About the Canada West Foundation

Our Vision

A dynamic and prosperous West in a strong Canada.

Our Mission

A leading source of strategic insight, conducting and communicating non-partisan economic and public policy research of importance to the four western provinces and all Canadians.

Canada West Foundation is a registered Canadian charitable organization incorporated under federal charter (#11882 8698 RR 0001).

In 1970, the One Prairie Province Conference was held in Lethbridge, Alberta. Sponsored by the University of Lethbridge and the Lethbridge Herald, the conference received considerable attention from concerned citizens and community leaders. The consensus at the time was that research on the West (including BC and the Canadian North) should be expanded by a new organization. To fill this need, the Canada West Foundation was created under letters patent on December 31, 1970. Since that time, the Canada West Foundation has established itself as one of Canada's premier research institutes. Non-partisan, accessible research and active citizen engagement are hallmarks of the Foundation's past, present and future endeavours. These efforts are rooted in the belief that a strong West makes for a strong Canada.

More information can be found at www.cwf.ca.

Canada*West*
F O U N D A T I O N

Manitoba Office:
#400, 161 Portage Avenue East
Winnipeg, Manitoba, Canada R3B 0Y4
Telephone: 204.947-3958

British Columbia Office:
#810, 1050 W. Pender Street
Vancouver, BC, Canada V6E 3S7
Telephone: 604.646.4625

Head Office:
#900, 1202 Centre Street SE
Calgary, Alberta, Canada T2G 5A5
Telephone: 403.264.9535

www.cwf.ca