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The Clayoquot Sound Workshop

Adaptive Management and Community Sustainability



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FOREWORD

The Sustainable Development Research Project (SDRP) of the Policy Research Initiative aims to provide policy makers and others with a better understanding of how to achieve sustainable development. Interdepartmental research projects in areas of governance, effective management and innovation are currently underway.

The Managing for Community Sustainability initiative is one of these research projects. It focuses on understanding how communities are implementing innovative approaches to sustainable development. The Clayoquot Sound Workshop and associated research papers were the first set of activities in this project.

Why Clayoquot Sound? While the region is still remembered by some as an area of conflict and crisis, the response by the many actors and interests in the area following the events of the early 1990's provides an example of new approaches to governance and to business practices. Multi-sectoral boards and advisory committees with broad representation make decisions and provide advice on resource use. Multi-national corporations enter into joint ventures and special agreements with First Nations. Environmental organizations help market ecologically harvested forest products. These are community-based, inclusive approaches that work to reconcile economic, social and ecological priorities.

The workshop also used the concept of adaptive management to understand activities in the region. This approach to resource management can best be summarized as "learning by doing" where constant evaluation and the use of the broadest range of information possible lead to ongoing adjustments of management practices to interactions with ecological systems.

Are these new approaches in Clayoquot Sound a success? The workshop did not try to answer this question. Rather it was designed as an opportunity for academics, government, First Nations, the community, business and non-governmental organizations to learn from each other about what was happening in the Clayoquot Sound region. It was particularly an opportunity for Clayoquot Sound area residents to share their experiences in implementing sustainable development with an external audience.

As communities respond to the complex challenges related to resource scarcity and ever-evolving global economic trends, the knowledge to help them innovate and remain viable will be critical. The information from this workshop and from other initiatives of the Managing for Community Sustainability research project aim to help build this knowledge base.



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Foundation Papers

Two foundation papers were prepared for the workshop. They were produced in partnership with the National Round Table on the Environment and the Economy and are available by contacting the Policy Research Initiative. The papers are:

SOUND GOVERNANCE: The emergence of collaborative networks and new institutions in the Clayoquot Sound region. By Rod Dobell and Martin Bunton

Adaptive Management for Sustainability – A Baseline Survey. By Arthur J. Hanson

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INTRODUCTION

Sharing Power Creatively

The Clayoquot Sound workshop sought to explore how, as presenter Larry Baird stated, this west coast Vancouver Island region was “being creative about sharing power.” The workshop drew over 60 participants including academics, business people, Nuu-chah-nulth community representatives, community members from the Ucluelet and Tofino areas, and various levels of government, to learn first-hand how community-based approaches to governance were being implemented and how the emerging approach of adaptive management could be understood in the context of the region.

The workshop was held in May of 2001 in Victoria and Clayoquot Sound, close to ten years after the summer of 1993 when over 900 protesters were arrested in the largest act of civil disobedience Canada had ever experienced. These protests were in reaction to provincial government land use decisions and to forest company wood harvesting plans. First Nations, environment groups and many community members opposed plans to log areas in the Clayoquot Sound watershed. These protests not only illustrated opposition to corporate and government land use policy, but also highlighted opposing views within the communities of the Clayoquot Sound region. The convergence of corporate, community, environmental and First Nations interests and pressures meant that “business as usual” and perhaps “governance as usual” could no longer exist in the region.

Bill Irving, the former mayor of Ucluelet noted that: “communities don’t know what they got inside, til they get in hot water.” The “hot water” referred to the events of the early 1990s. The start point of the workshop saw an attempt to determine what the Clayoquot Sound region had “got inside” – what the region had implemented (in cooperation with the public and private sectors) to deal with the forces that had landed them in hot water.

As the workshop and this report illustrate, the region is in some ways a laboratory for learning about how rural, resource-based communities respond to crisis – how they engage in the process of transition and renewal. In the case of the Clayoquot Sound region, the response was to develop institutions that sought to broaden decision making – that essentially sought to “share power creatively.”

Report Approach

This report is intended to provide an overview of what was discussed and presented over the course of the three-day event. The workshop was structured to have three parts:

- a focus on more theoretical aspects of community-based ecosystem management during the first day in Victoria;
- a concentration on innovative approaches to community-based eco-system management in the region on the second day; and
- a day to take stock and discuss policy implementation.

This report will quickly highlight key events in the Clayoquot Sound region over the past ten years. It will then provide an overview of each of the sessions at the workshop. It will conclude with a short summary of the workshop’s findings. Because this report is only able to offer highlights of what was discussed, links to other sources of information, particularly web sites, will be provided throughout.

CLAYOQUOT SOUND REGION KEY EVENTS – 1993 - 2000

(adapted from www.iisaak.com)

- 1993:** Following the failure of the Commission on Resources and Environment Steering Committee to reach full agreement on areas to be protected, the BC government announces the Clayoquot Land Use Decision.
- 1993:** Opposition to logging in Clayoquot Sound leads to widespread civil disobedience with at least 9,000 people passing through the Clayoquot Sound Peace camp. The Clayoquot blockage results in 972 arrests, representing the largest protest in Canadian history.
- 1993:** BC government initiates the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound, an independent panel of First Nations and scientific experts in biodiversity, fisheries and wildlife, forest harvest planning and scenic resources. Their goal is to develop world-class standards for sustainable forest management by combining traditional (First Nations experience) and scientific knowledge (western science).
- 1994:** A historic two-year Interim Measures Agreement (IMA) between the provincial government and the five First Nations of the Nuu-chah-nulth Central Region is signed. The IMA acknowledges that the Ha'wiih (hereditary chiefs) of the First Nations have the responsibility to conserve and protect their traditional territories and waters for generations that will follow. Consequently, joint management of the Nuu-chah-nulth traditional territory's lands and resources is granted until the completion of treaty negotiations. The agreement is extended in 1996 and 2000.
- 1994:** Creation of the Central Region Board (CRB), a unique board with equal aboriginal and non-aboriginal membership to oversee development in Clayoquot Sound. The CRB is the first significant joint-management structure in BC between First Nations and the provincial government, and provides the Clayoquot Sound communities with unprecedented opportunities to have input into resource management, economic development and social issues.
- 1995:** The Scientific Panel completes a series of groundbreaking reports that describe how to manage the forests in Clayoquot Sound. The BC government accepts all 120 recommendations.
- 2000:** Establishment of Clayoquot Sound UNESCO Biosphere Reserve and Trust that involves the collective efforts of central region tribes of the Nuu-chah-nulth, the Central Region Board, labour, local communities and environmental organizations. The Clayoquot Biosphere Reserve is an area where communities balance conservation with sustainable economies and social and cultural development and includes 350,000 hectares known as Clayoquot Sound.
- 2000:** Establishment of West Coast of Vancouver Island Aquatic Management Board to lead and facilitate the development and implementation of a strategy for the integrated management of aquatic ecosystems.

PART ONE:

DUNSMUIR LODGE SESSIONS

A series of speakers and panels were brought together in Victoria to discuss, from a broader perspective, how the Clayoquot Sound region developed new governing structures, new partnerships, and management tools. The purpose of the Dunsmuir sessions was to provide some of the historical background of the Clayoquot Sound region and to explore some of the theoretical underpinnings of the institutions and practices that have been implemented in the region since the early 1990s.

WORKSHOP WELCOME

David Turpin, President of the University of Victoria, opened the workshop on the first evening. Turpin described the workshop as a good example of ways in which universities can work more effectively with governments and communities - both to assure greater responsiveness in the research and teaching that is carried out, and to improve the ways in which research is carried into policy and practice.

Rod Dobell, Professor at the University of Victoria, co-organizer of the workshop, and co-author of the background paper on Clayoquot Sound, then took a few minutes to introduce the rationale for the workshop and to highlight some of the questions he raised in his foundation paper. These questions included:

Are adaptive management and community-based management compatible?

If so, do they necessarily lead us to sustainability?

Questions that were raised specifically about Clayoquot included:

- to what extent has there been an “evolutionary process” (“natural selection”) that carried Clayoquot Sound forth to structures such as adaptive management?
- Or, to what extent did these structures emerge because adaptive management required a powerful champion and in Clayoquot Sound there was, at least momentarily, room for leverage?
- If so, what lessons can fairly be drawn for developments elsewhere (regions lacking the leverage that the Nuuchahnulth had in the early 1990s)?
- Is it possible that the driving force in these developments is not related to adaptive management at all?

SOUND GOVERNANCE: THE RECENT EMERGENCE OF COLLABORATIVE NETWORKS AND INSTITUTIONS

The first session of the workshop was meant to give participants an overview of events in the Clayoquot Sound region from a number of perspectives. Larry Baird is Ucluelet First Nation Chief Councillor and co-chair of the Central Region Board (CRB). Ann Hilyer is the provincially appointed co-chair of the Board. Bill Irving was mayor of Ucluelet during much of the past decade and currently works in the forestry sector. Finally, Andrew Petter held various Cabinet posts in provincial governments over the past ten years and currently teaches at the University of Victoria. David Turpin chaired the session.

From **Larry Baird's** perspective, the situation in the Clayoquot Sound region is one of "being creative about sharing power." A major step forward in power-sharing was made, noted Baird, when some of the elders, eminent in the Nuu-chah-nulth community but lacking the 'letters beside their names', were accepted as equals on the Scientific Panel. This "levelled the playing field" somewhat. He stated that the Nuu-chah-nulth take great pride in the three Interim Measures Agreements which have been signed over the past ten years, although, as he noted, the jury is still out on how much power the CRB actually has.

Ann Hillyer's talk focussed on 3 significant opportunities in the region for adaptive management, and on 3 significant obstacles. In terms of opportunities:

- the Central Region Board which obtains legitimacy as a creation of the Interim Measures Agreement, and the opportunity it provides to learn about the range of interests in Clayoquot Sound;
- the beauty of the area provides all with motivation for strong stewardship and provides real economic opportunities;
- the rich social capital of the area.

Challenges:

- planning processes are often related to large areas with long time frames, and opportunities are lost with delays;
- systematic monitoring programs over time are really difficult;
- the ongoing challenge, in what is still an uncertain economy, of easing the transitions of the last decade.

Bill Irving recounted how from the late 1980s, in a process not unlike the television series *Survivor*, a variety of different proposals were made on how to make decisions on resource use in the region. After agreement was seemingly reached in 1993, it was realized that that the decision skipped a serious protocol arrangement as it failed to consult First Nations. A whole new set of negotiations had to be established that led to the Interim Measures Agreement and to the Scientific Panel. In this process, community can be seen "seizing control of the agenda." Instead of "whining and snivelling" the local community began to build processes and solutions based on "down-to-earth common sense." In conclusion, Irving stressed the importance of the local community coming to terms with various interests and recognizing the good things that everyone brings to the table. He cited the philosopher Lipton: "communities don't know what they got inside, til they get in hot water."

Andrew Petter began by noting that for a long time he saw government policy in Clayoquot Sound as “crisis-management gone wrong”. Now, he is happy to view the steps toward adaptive management as representing “organic policy making done right.” Some interesting issues were raised. First, was it a case of government decision making itself being adaptively managed? The local reaction to the 1993 land use decision (a decision cabinet fully believed it had the right to make) left government reeling. Something had to change/adapt. Second, something larger may be at play: the movement toward adaptive management can be seen as reflective of social changes, and of changes in the way forestry is viewed. No longer serving a single purpose, forestry must now respond to multiple views and interests. Issues had become more complex, and government’s legitimacy was questioned as it tried to grapple with all stakeholders’ views. Given its participatory nature, adaptive management represents one strategy to close the growing gap between state and civil society.

Discussion

Art Hanson wondered about BC being on the leading edge of adaptive thinking. Petter noted that, while people at first had to get hit over the head before they paid attention to adaptive management thinking, other areas (for example, the central coast of BC) have benefited enormously from the lessons learned from Clayoquot, and from the general change in expectations. **Bill Irving** noted that, in the context of global free trade, local communities are going to have to learn quickly, and that there are other models out there (Japan, Alaska, for example). **Valerie Langer** raised the difficulty of the “environment” being heard when stakeholders bring their voices to the table: just how do we engage an ecosystem as a stakeholder? **Anne Hillyer** elaborated on the general problem of representation and the constant tension between being fully inclusive and effective: to be effective, community based models have to be of a manageable size, but community must always be able to look at that model and see itself. Irving noted that stakeholder interests and community interests are not always the same thing, and that it is very important for community interests to come under one umbrella.

Additional Resources:

Nuu-chah-nulth Tribal Council: <http://www.nuuchahnulth.org>

Central Region Board: <http://www.island.net/~crb>

ADAPTIVE MANAGEMENT FOR SUSTAINABILITY

One of the lenses through which the workshop examined the Clayoquot Sound region was through what has been termed “adaptive management”. Arthur J. Hanson of the International Institute for Sustainable Development led off the discussion with a general overview of the concept of adaptive management based on the paper he prepared for the workshop. J.B. Nyberg of the British Columbia Ministry of Forests provided an overview of how his Ministry is implementing adaptive management. And, Roman Frank of the Ahousaht First Nation spoke about the relationship between community processes and adaptive management. Alison Evans of Dalhousie University chaired the session.

Art Hanson presented adaptive management (AM) as a theoretical underpinning of sustainable development. He used a series of metaphors to make his point.

The metaphor of a journey. According to Hanson, as we move forward along the path toward sustainability, we have to cope with surprises. Hanson suggests that AM helps us develop and modify the paths we take using various techniques. The myths that may help us along the path in the short term need to be destroyed and revised as things change. AM techniques and processes such as experimental probes can help us do this.

The metaphor of the “Perfect Storm.” In the book and movie of the same name, a large number of unfortunate circumstances converged to create a large catastrophic event. Hanson suggested that two recent examples of this in real systems are the power shortage in California, and the virtual shut down of both the fisheries and forestry sectors in Clayoquot Sound in the mid 1990s. The AM approach contains the processes necessary to work through so-called “Perfect Storms.”

The metaphor of the roller coaster. A roller coaster has multiple stable points and points of entry just like the cycle of adaptive management.

The metaphor of a gyroscope. This is borrowed from the work of Kai Lee. AM is the compass that sets the direction of the gyroscope while “bounded” conflict provides the energy. In Clayoquot Sound the conflict was not bounded before 1993 when demonstrations and legal action resulted in all the stakeholders sitting at the same table. AM works to provide a framework so that situations of “creative tension” can be channeled into producing solutions.

Hanson also discussed adaptive management in the context of what Thomas Homer-Dixon has called *The Ingenuity Gap*. Homer-Dixon contends that society lacks the required ingenuity to deal with complex problems such as climate change and environmental scarcity. AM, according to Hanson, is all about closing the ingenuity gap by learning by doing. Hanson suggests that there is much more to develop and learn about AM and we must be “selling the boat while we are building it.”

Finally Hanson stressed that we should be prepared to deconstruct our ideas and myths of how to manage resources in order to be open to new approaches. It is necessary, according to Hanson, to share power and responsibility in order to develop a more adaptive and sustainable management framework.

Panel Discussion

While Hanson focused on some of the theoretical underpinnings of adaptive management, **Brian Nyberg**, illustrated how the British Columbia Ministry of Forests has made progress towards implementing adaptive management (AM). While Nyberg agreed that AM and sustainability are

complementary, he also suggested that AM is not the only tool for advancing sustainability, and that we all must recognize that we need new tools to deal with “changes over time”. Nyberg contended that while AM is about management, not modeling, active AM uses modeling to experiment and learn. Nyberg defined active adaptive management as programs that are designed to experimentally compare selected policies or practices, by evaluating alternative hypotheses about the system being managed. Nyberg outlined a 6 step AM cycle: assess – design – implement – monitor – evaluate – adjust.

Nyberg suggested that while AM may not be clear in our minds, it is still useful as some of its underlying principles help guide us toward solutions to resource management questions. Nyberg suggested that concentrating on smaller areas now is a good way to learn because it is hard to get consensus in larger regions. For Nyberg, AM requires participation and support from the start to the finish, and may be more applicable for a limited number of issues.

Roman Frank focused on the personal responsibility individuals need to execute in order to ensure success in applying adaptive management and sustainable development. He suggested that we need to adapt our personal levels of expectation, by “adapting ourselves to a new ideology.” This should include our consideration of how we consume goods and services, or our ecological footprints.

Frank suggested that we have to start this on-going journey to sustainability with principles. Taking this approach may mean that as decisions are made, there may be short-term losers. It is the responsibility of the community to ease the transition for those adversely affected in this way. Frank also called for humility in how we conceptualize the human relationship with nature.

He asked the question “do we trust the people who represent us?”. Frank called for constant communication in order to maintain a level of change and adaptation. Finally, Frank called for a “shift toward the legacy” – implying policy making that considers implications for future generations.

Discussion

The discussion that followed the presentations concentrated on managing conflict and putting theory into practice. “Bounded conflict” was presented by Hanson as a necessary part of the adaptive process for creativity.

The question of how best to put AM theory into practice and how to start the process toward sustainability was asked. Perhaps, the participant suggested, identifying the strengths of the community should start the process. Hanson suggested that the “discover, dream, design, and implement” model may be useful as a starting point. He also supported the idea that adaptive management is an individual process, and having a shared underlying principle like “everything is one” can be a very helpful starting point.

Additional Resources:

For more information on adaptive management see the online journal Conservation Ecology at: <http://www.consecol.org/Journal>

BC Ministry of Forests and adaptive management: <http://www.for.gov.bc.ca/hfp/amhome/amhome.htm>

NEW APPROACHES TO MAKING RESOURCE POLICY: KNOWLEDGE SOURCE IDEAS

The presenters discussed the integration of local and traditional knowledge with the techniques of scientific inquiry in resource policy decision making. Two members of the Scientific Panel for Sustainable Forest Practices in Clayoquot Sound, Richard Atleo of Malaspina University College and Nancy Turner of the University of Victoria, presented their perspectives on the Panel's work and aftermath. Crystal Sutherland of the Hahulthi Project discussed how her research project was investigating the traditional system of ownership and resource management of the Nuu-chah-nulth People. Katherine Barrett of the University of Victoria gave an overview of how the precautionary principle could be used in decision making. Kelly Bannister of the University of Victoria chaired this panel.

Richard Atleo discussed some of what he had learned as a member of the Scientific Panel. He spoke on the importance of integrating local and traditional knowledge with the techniques of scientific inquiry. For Atleo, the promise of science was its ability for great technological advance. However, he contended that science has had a colonial attitude toward the natural world, resulting in practices of exploitation, depletion and destruction. Traditional methods of inquiry, however, have focused on the reciprocal relationships between the human world and the natural world, and have considered all processes of inquiry as founded on constitutional principles of mutual recognition, continuity, and consent. In this model, elements of the natural world are considered sentient and principles of constitutionality are equally applicable to them.

As an illustration of how these principles are incorporated into First Nations use of resources, Atleo highlighted the Nuu-chah-nulth belief that a whale consents to being hunted, when it grabs the harpoon; this illustrates a mutual agreement between the hunter and the whale.

These two different languages of inquiry were brought to the same table when the Scientific Panel was formed to discuss management strategies for Clayoquot Sound. Atleo described the long process of negotiation and translation, as the First Nations approach to the natural world gradually became more understandable to the members of the scientific community sitting on the Panel. In the end, the Scientific Panel was the site of a paradigm shift among those on the panel as they began to consider that First Nations principles of continuity, consent and mutual respect as important to the management of the resource base of Clayoquot Sound.

Nancy Turner spoke further on the experience of being a member of the Scientific Panel. The first challenge faced by members was establishing ground rules for efficient communication. The members agreed that both listening and understanding were important for establishing constructive discussion on the issues faced by Clayoquot Sound. The gulf between the spiritual approach of the First Nation members and the detached scientific approach of the non-native members was bridged through the acceptance of the notion that all science was value laden as well, and that respect was an important value that needed to be incorporated into the discussions of the Panel's work.

By establishing these as ground rules, the members of the Scientific Panel were able to begin to understand Clayoquot Sound through the eyes of those that had resided there for centuries. This revealed, for instance, that while the scientific community considered areas of environmental or

ecological significance worthy of protection, for the First Nations of the area, the spiritual, medicinal and future properties of areas were equally legitimate grounds for establishing acts and policies of protection.

Crystal Sutherland related the experiences of the Hahulthi Project, where interview work reveals the meaning and practice of the Hahulthi, the traditional system of ownership and resource management of the Nuu-chah-nulth People.

The Hahulthi project is explicitly aimed at bridging the two worlds of scientific and traditional knowledge. For Sutherland, these two methods of inquiry are centered on two very different epistemologies. Traditional knowledge of the Nuu-chah-nulth has an epistemology that is aimed at uncovering the spiritual aspects of the natural world, that considers the past, present and future linked. The Hahulthi approach considers the human and natural world linked. In terms of resource management, the Hahulthi state that natural resources can manage themselves, however, human interaction with the resources needs to be managed to ensure sustainability.

Katherine Barrett discussed the incorporation of the precautionary principle into resource management. The precautionary principle, very briefly, states that if there is a threat of harm to the environment or human health, precautionary measures should be applied. In other words, the precautionary principle is a directive suggesting that resource policies should aim to err on the side of caution. The principle calls for an initial recognition that all actions are potential sources of harm and that resource management has uncertain and unknown consequences. Most importantly, the precautionary principle emphasizes the need to take precautionary actions.

In terms of implementation, the precautionary principle can guide the formation of a very broad action framework that includes directives to clearly define parameters of environmental harm, adopt a weight of evidence standard and an open and transparent process that stresses accountability in terms of arriving at these standards and parameters.

Additional Resources:

Scientific Panel:

http://www.for.gov.bc.ca/ftp/Branches/Forestry_Division_Services/external/!publish/clayoquot

NEW APPROACHES TO MAKING RESOURCE POLICY: INTEGRATION OF KNOWLEDGE

This panel addressed, broadly, what happens when traditional or local approaches to resource use and management were incorporated into conventional business and policy-making frameworks. Presenters were: Cliff Atleo of the Regional Aquatic Management Society, Linda Coady of Weyerhaeuser Canada, Don McMillan of International Forest Products Limited (Interfor), and Rupert Downing of the British Columbia Ministry of Community Development, Cooperatives and Volunteers. The chair of this session was Anthony Hodge of Royal Roads University.

Cliff Atleo presented the Regional Aquatic Management Board (RAMB) as “a government-mandated organization where those with responsibilities and interests in aquatic issues can work together to manage aquatic resources.” The Board has multi-stakeholder representation with appointments from the federal, provincial and municipal governments, the Nuu-chah-nulth Tribal Council, and the community at large.

In setting out the vision and principles of the Regional Aquatic Management Board, Atleo emphasized conservation, adaptive management, *Hushukish Ts'awalk* (“everything is one”) and *Iisaak* (“respect”) and the need to represent as broad a spectrum of interests as possible (including those of future generations).

The major catalyst for the RAMB was the crisis in the once lucrative fishery: For example, there once were almost 20 buying stations in Ucluelet, now there are only 2. In Ahousaht, there are only 6 licenses left. According to Atleo, very little fisheries money now enters into the local economy. Using the Central Region Board as a model, diverse interests came together to establish the RAMB as a way of actively participating in proposing solutions and of taking responsibility for the environment for future generations.

The work of the Board is just beginning. Atleo is confident that processes and structures such as this can only expand: “survival of communities depends on it, we won't accept that communities will die.”

Linda Coady stated that the opportunity to be more flexible and adaptive in the Clayoquot Sound region has been a source of learning about the changing relationship between the private sector and civil society. Coady has been a key executive at Weyerhaeuser Canada as it has reformulated its business practice in the region through the formation of a joint venture with the Ma-Mook Development Corporation – Iisaak Forest Resources Ltd.

Coady stated that without government as an intermediary, conflicts between business and environmental groups have been addressed through “market based collaboration”, i.e. shared learning among different interests that is unconstrained by government regulations and is responsive to market dynamics but not ruled by them.

Coady contended that interconnectivity is not simply an ecological characteristic - in the forest context, failure to resolve attendant social and economic issues will ultimately result in failure to resolve ecological issues, and vice versa. Investigation of market-based mechanisms in Clayoquot Sound has assisted in attempts to deal with endangered forest issues in other regions, but there have been heavy

costs (significant human energy and capital has been expended; harvests have been reduced), and there are significant risks associated with challenging the frameworks of government control and with satisfying an unpredictable market.

For Coady, the verdict is still out on whether this new approach in the Clayoquot Sound region is working; however, it is the journey that is most significant at this point. The reality is that tensions between business and environmental groups are never going to go away and so the challenge is to create and maintain a framework in which cooperation and conflict can occur simultaneously at the appropriate level. To be truly equitable and sustainable, decisions must ultimately be made at the level where people are actually doing the work.

Rupert Downing gave an overview of the community development work of the British Columbia Ministry of Community Development, Cooperatives and Volunteers. He provided examples of how the Ministry is working to invest in community tools that help manage changing conditions and take action on priority aspects of community health, using indicators and benchmarks. There are important links between this mandate and adaptive management: learning from experiments; building understanding in the broad public policy arena based on that learning; engaging stakeholders (this is key); evaluating and measuring changes; etc. Indeed, there is a conceptual linkage between adaptive management as a framework for resource management, and evolving public policy on community development: new initiatives for community governance emphasize new creative spaces for civil society to adapt to and manage change outside the old paradigms of governance.

What is hoped for is an understanding of how BC public policy can better support the province's sustainability as an aggregate of local conditions for which local people and their organisations are the best stewards. A central question of determining the appropriate mechanisms by which authority and resources can be transferred remains. In a political economy that has tended to favour direct relations between big government, big industry and big labour, any change to a more locally based form of ecosystem management needs to invest in community capacity to manage and direct change. To these ends, there are two pilot projects in the Clayoquot area: the Alberni Clayoquot Skills Centre (in partnership with the Biosphere Trust) and the Clayoquot Learning Communities Initiative (based in Bamfield and Ucluelet).

Don McMillan stated that Interfor recognizes that fundamental changes are necessary to forestry in British Columbia, and views Clayoquot Sound as a place to learn new ways of doing forestry. But change takes time: you must be able to experiment and learn - to adapt based on your successes and your failures. Interfor has changed the way it has worked in the region, including opening a local office in Ucluelet in 1992 and the development of protocols and agreements with many of the First Nations, local organizations and communities. While working with each First Nation community is different, McMillan contends that all communities express two main needs: employment now and for our children, and a greater say in resource management.

The dramatic pace of change in policies and standards has been costly to the company with staff restructuring and workforce retraining, and the new equipment that has been purchased to meet the Scientific Panel recommendations.

McMillan stated that adaptive management and community sustainability ought to consider the big picture: environmental benefits that accrue from a reduced harvest in Clayoquot mean increased volumes somewhere else. “We do not know what the future will bring, we can only try to anticipate the changes.” The key to working in this region he stated, is flexibility.

Additional Resources:

Regional Aquatic Management Board: <http://www.rams-wcvi.org>

Weyerhaeuser Canada: <http://www.weyerhaeuser.com>

Markets Initiative: <http://www.oldgrowthfree.com>

BC Ministry of Community Development: <http://www.gov.bc.ca/mcaws>

Alberni Clayoquot Skills Centre: <http://members.tripod.com/~absolutedd/skill.html>

International Forest Products: <http://www.interfor.com>

MANAGING FOR SUSTAINABILITY

Brian Emmett, Vice President, Policy Branch, Canadian International Development Agency and ADM lead, Sustainable Development Research Project of the Policy Research Initiative, presented on the utility of the sustainable development framework as a mechanism for conceptualizing public policy issues and for taking action. He began by tracing the roots of current sustainable development thinking. According to Emmett, much of the sustainable development's value lies in the current notion of promoting growth to limits, rather than imposing limits to growth – this was the prevailing view in the early 1970s. This latter view was seen as unworkable in the wake of North America's negative reaction to the oil shock. The idea of reduced standards of living seemed unacceptable. This constraint has driven the development of current sustainable development approaches.

Emmett focused on the implementation gap. The job of selling sustainable development will have to be done in a way that does not imply the division of a fixed pie. Growth to limits allows us to move beyond this idea of a zero sum game. Pushing the limits, and applying sustainable development frameworks, will have to be accomplished through innovation and ensuring that better information is available. Information is key emphasizes Emmett, since “what gets measured gets done.”

Emmett also discussed sustainable development in the international context. Our job, he stated, is also one of demonstrating that Canada is not an island. Despite our current levels of pollution, our large landmass and our small population make us net importers of pollution. If we don't work with other countries, we will lose control over our own environment. Although it is important to think globally and act locally, there is also merit in applying local experiments globally.

When we talk about sustainable development in Canada, the environment plays a very prominent role, and our problems are associated with affluence. In the developing world, the problems are of desperation. There is a qualitative difference between these. Since coming to CIDA, Emmett revealed that he had gained an increased appreciation of the social side of sustainable development issues. This social side, though less visible, is essential to ensuring that the more visible evidence of development assistance, such as newly built schools, is used to its full potential.

Like sustainable development, Emmett views adaptive management as a valuable concept, as it allows action to begin before all information is available. If it is well promoted, it can be used to overcome the paralysis that accompanies risk aversion. If Honda can market its take on adaptive management “Race, Win, Learn, Race, Win, Learn. . .”, there is no reason why bureaucrats can't do the same. However, it must be done in a way that includes effective communication with our political bosses.

Sustainable development and adaptive management can be powerful concepts. But the ultimate test will be their ability to lead to better solutions.

PART TWO:

CLAYOQUOT SOUND SESSIONS

After five sessions at Dunsmuir Lodge just outside Victoria, the workshop moved about five hours north and west to the Clayoquot Sound region. The purpose of the Clayoquot Sound sessions was to have more “on-the-ground” learning opportunities. Thursday, May 9 started with a panel featuring local perspectives on resource management. Following this, workshop participants split into three groups and engaged in case studies on the fishing sector, forestry and integrated management. The day ended with a traditional feast and a slide show by a local Canadian photographer/artist, Adrian Dorst.

THE CLAYOQUOT SOUND REGION: LOCAL PERSPECTIVES

Presenters for the opening plenary session were Nelson Keitlah, Nuu-chah-nulth Tribal Council, Andrew Day, West Coast Sustainability Association, and Maureen Fraser, Central Region Board. These presenters “set the stage” by giving local perspectives on the events which had shaped the region in the 1990s. Tim Webb of the Clayoquot Biosphere Trust chaired the session.

Nelson Keitlah of the Nuu-chah-nulth Tribal Council began the panel discussion. Keitlah recognized the continuous historic change of attitudes and the current need for a change in livelihood that includes First Nations in the planning of the economic future of the Clayoquot region. Keitlah discussed the need for the development of further understanding and communication between the First Nations and policy makers – it takes two people to make an agreement work. Keitlah highlighted that First Nations want to be a part of the fisheries resource because it is an important aspect of their culture.

Andrew Day of the West Coast Sustainability Association gave an inventive presentation of a ‘6000 year old story.’ It provided an overview of community based initiatives and how they interact with policy-making processes outside the community. Day emphasized the need to capture a sense of commonality between communities and policy makers.

Maureen Fraser of the Central Region Board discussed the importance of the community participatory process toward achieving adaptive management and some of the barriers encountered in the Clayoquot region in regards to the management of tourism. Fraser emphasized that the local community perspective should not be underestimated. Local visions and long-term commitments of community members develop interest and concern for local issues and economy. In regards to tourism, Fraser stated that there needs to be a powerful bridge or link between environmentalists, First Nations, non First Nation locals and the tourism industry in order for any policy to be effective.

Some discussion ensued regarding tourism in the region. Fraser highlighted that the problems are ongoing because we have to protect the fragile reasons that people come to visit the Clayoquot Sound. Day pointed out that tourism in the Clayoquot region is seasonal – it can be a viable alternative to other resource industries but there are tradeoffs to how much tourism the area can support.

In an audience question regarding how to ensure balance within the community, Day emphasized the need for everyone involved to be at the table. Fraser emphasized the need for local voices at the Board (table) as well as the academic and government component because they all contribute different aspects and knowledge. Keitlah touched on the importance of the Treaty Agreements as a means to help First Nations to participate and discuss collective issues.

Additional Resources:

Clayoquot Biosphere Trust: <http://www.clayoquotbiosphere.org>

Ucluelet: <http://www.dist.ucluelet.bc.ca>

Port Alberni/Clayoquot Municipal District: <http://www.acrd.bc.ca>

Tofino: <http://www.tofino-bc.com>

LAND-USE PLANNING AND INTEGRATED RESOURCE USE CASE STUDY

Presenters: Anne Hillyer, Co-chair, Central Region Board
 Roland Arnet, Oyster Farmer
 Bill Vernon, Creative Salmon
 Anne Atleo, Chief Councillor, Ahousaht First Nation
 Roman Frank, Ahousaht First Nation Councillor
 Ahousaht First Nation Elders

The workshop began with an overview of the activities of the Central Region Board that emerged from the first Interim Measures Agreement in 1994. The Board, comprised of local community and First Nations representatives, has the discretion to review land use decisions made by the British Columbia government for the region. Its mission is to address lands and resources issues in the Clayoquot Sound, prior to the conclusion of a treaty with First Nations peoples in the region, in a manner that provides opportunities, conserves resources and that promotes economic diversification and ecological integrity.

Not all parties place the same value on all of these priorities. However, the Board attempts to reach solutions that satisfy most. Although the Board's advice to provincial departments is non-binding, there is still an opportunity for dialogue. Generally these recommendations have been followed. There is also an opportunity for a public appeal to the British Columbia cabinet, in the event that the Board feels that this is necessary. To date this has never had to be used. Concerns were expressed that, despite the precedent of local participation being set, the provincial government has the final say on composition of the non-native portion of the Board's membership. There was also concern that the final authority for making decisions still rests with the provincial government.

Following the initial discussion, the group proceeded to the case study sites located at various points around the Sound. The first stop was an oyster farming operation. Many aspects of shellfish farming operations were explained. Concerns about land-use issues were also raised. Perhaps the most important issue highlighted by the session related back to the 'everything is one' principle. Increased tourism can have an impact on shellfish farming, due to increased levels of pollutants. Logging can affect aquaculture due to runoff. It can also have an impact on sea birds, as it can affect tidal flats.

The next case study site was an independent salmon farm, one of the last chinook growers. As the session progressed, it quickly became apparent that the farm represented adaptive management in action. Raising the temperamental fish proved difficult, and it was necessary to "listen to the fish". Other examples of adaptive management were the use of fewer antibiotics and the implementation of new methods of predator control.

The final stop was on Flores Island at the Ahousaht First Nation community of Marktosis where the group was hosted by a panel comprised of band members including the elected chief councillor, the acting fisheries manager and the resource manager. The presentation mainly dealt with steps to remedy past disputes surrounding fish farms as well as forestry issues. Previously there had been a

disregard for the environment by many of the area's farms, as well as economic exclusion of First Nations people. In the wake of civil disobedience, a dialogue was opened in an effort to remedy these disagreements. As a result of the consensus reached, operations were cleaned up, and with the looming expiration of fish farm tenures, work has begun on an agreement that will set out working relations with a major corporate owner of local fish farms.

The major themes that emerged from this session were the need to balance economic and environmental concerns; the importance of managing for the future in all areas of resource use, both on land and on the water; and a reminder that various factors must come together to change the status quo.

FISHERIES AND OCEANS MANAGEMENT CASE STUDY

Presenters: Cliff Atleo, Regional Aquatic Management Society
 Ron Kadowaki, Department of Fisheries and Oceans
 Julie Edwards, Red Snow Crab Fishery

Cliff Atleo spoke of the Hahulthi approach to fisheries management, in which resource management is considered to be a responsibility bestowed to human beings by the Creator. This approach assumes that all aspects of environmental and human systems are interconnected and interdependent. For Atleo, Hahulthi would have anticipated the devastating impact of clear cutting on other aspects of Clayoquot Sound eco-systems.

Hahulthi ideas on resource management and property rights lead to the creation of strategies for integrated management and protection and preservation of resources.

A Hahulthi approach to the fisheries of the Clayoquot Sound region would suggest that management committees corresponding to different aspects of the fisheries be set up to make decisions regarding resource management, rather than having decision making authority resting in the hands of the Department of Fisheries and Oceans. This would involve individual communities in the process of building economic capacity. Atleo asserted that this approach, which would assign responsibility for data collection, research and the identification of sustainable resources, to individual communities, would result in a much more efficient and responsive system of resource management.

Ron Kadowaki of the Department of Fisheries and Oceans (DFO) spoke on the DFO's strategy to embark on shared decision making with fishing communities. Shared decision making in resource management involves the recognition that different models work in different places; people, resources and interests are all ingredients that make each management model different.

The strategy of the federal government is to protect resources that are endangered, encourage the development of other fisheries in communities that are affected by the closing of the main fisheries, and generally, to invest in programs and strategies that aim to increase the economic resilience of fishing communities.

Julie Edwards told of the experience of the Ucluelet community's effort to establish a Red Snow Crab fishery in the wake of the closing of the salmon fishery. This fishery was the result of a concerted community effort to reestablish vital economic activity. In this program, community members participated in the initial collection of data in order to establish the sustainability of a Red Snow Crab Fishery. A survey of the fishery was embarked on, financed by a combination of outside funding and personal assets of community members. Unfortunately, cost was an obstacle to the completion of the survey, as the funding partnership supporting the initiative broke down. The initial research did show, however, that the Red Snow Crab Fishery, if managed and processed locally, has great potential to contribute to a sustainable and resilient economic base in Ucluelet.

This session concluded with a group discussion and a tour of Ucluelet and Barkley Sound.

Additional Resources:

Regional Aquatic Management Society: <http://www.rams-wcvi.org>

Red Snow Crab Fishery Information: <http://www.crabforsale.com>

Department of Fisheries and Oceans — Pacific Region: <http://www-comm.pac.dfo-mpo.gc.ca>

FORESTRY CASE STUDY

Presenters: Valerie Langer, Friends of Clayoquot Sound
Eric Schroff, Iisaak Forest Products/Weyerhaeuser Canada
Don McMillan, International Forest Products Limited (Interfor)

This case study highlighted the various groups and initiatives that have emerged in the forestry sector since the events of the early 1990's.

The Friends of Clayoquot Sound participate in activities such as the monitoring of forestry activities, and the marketing of old growth friendly forest products. One of the main issues brought up by "Friends" was that they felt that environmental values have been marginalized from decision-making processes in Clayoquot. This was in part because the environmental groups have no specific leaders, but also because these groups have not been invited to be involved in all cases. Langer outlined the history of old growth forestry on Vancouver Island stating that there is only 75% of temperate rain forest left, and there is increasing fragmentation of the forests even with the new forest practices being used. A point that the "Friends" stressed was that the decision-making process should start with the question of whether or not to log in the first place?

The Long Beach Model Forest is a project funded primarily by the federal government, which promotes sustainable forest management (SFM). The model forest uses mostly volunteers to demonstrate, educate and develop indicators of SFM with input from First Nations and government participants. The project emphasizes that there is a need to continuously recreate and re-focus what sustainability means and that the consideration of economic, social and environmental concerns need to be given equal weight in decision-making. The community created the Rainforest Interpretation Centre through the project to provide information about forests and forestry issues to the residents and visitors of the region.

The case study on management experiments in forestry took a site visit via water taxi to Interfor and Iisaak's current cuts in Clayoquot Sound that demonstrate new forestry standards of the Scientific Panel. The Scientific Panel was the motivation for sustainable forestry activities for the two forestry companies operating in Clayoquot Sound – namely Iisaak and Interfor. In the past, disconnect existed between forestry policies set in Victoria and community needs and values. The Annual Allowable Cut (AAC), the measure for harvesting rates in the region, was set in Victoria. Conversely, the Scientific Panel suggested that the logging should be set by area and not by volume of wood as defined by AAC. Iisaak is carrying out a number of experiments in the area, including working with First Nations and environmental groups. For example, the Hahulthi Project is an example of how the First Nations elders were working with a forestry company to identify models of forestry. Interfor is experimenting with new and more environmentally friendly practices including using lining (the transport of trees up and down hills on steel lines rather than using more damaging methods), and using helicopters to remove trees rather than using trucks which require the construction of roads.

Additional Resources:

Friends of Clayoquot Sound: <http://www.ancientrainforest.org>

Iisaak Forest Resources: <http://www.iisaak.com>

International Forest Products: <http://www.interfor.com>

EXPLORING POLICY IMPLEMENTATION

The final day of the workshop provided the opportunity to discuss key themes of the previous days and to explore policy development implications. Discussion was framed around past and future enablers (bridges) and obstacles (barriers) to applications of adaptive management principles. Discussion also sought to identify key messages that ought to emerge from the workshop and the Clayoquot Sound experience generally.

This final day was also an opportunity for various actors in the community to talk amongst themselves and provided an opportunity for workshop participants from outside the region, particularly those working directly with “communities in transition” to draw comparisons.

There were no tidy conclusions. This was not the goal given the complexity of the issues and the many voices involved in the dialogue. The group did agree that occasions such as the workshop and particularly the opportunity for discussion help continue what became a central metaphor for the workshop: that of a journey toward sustainability.

Bridges and Barriers

Barriers to implementing adaptive management in the past were discussed. These included the varied interests within the community, a lack of understanding about how to address issues (no rules of engagement), confusion over language in decision-making processes, a disconnection between local and government groups, and bitterness in the community because there were perceived “winners” and “losers”.

Bridges to implementing adaptive management in the past focused on the “social capital” of the region. It was recognized that perhaps the most valuable “resource” in the Clayoquot Sound region was its people. There has been committed community involvement in all of the developments of the 1990's and significant community empowerment has been the result. The presence of a strong NGO community was also cited as a critical “bridge”. It was noted that many community members (First Nation and non-First Nation) had become adept at taking on different roles as the situation demanded. So, for example, the forestry worker was also a negotiator with the provincial government, the fish harvester was also a community organizer, and the tourism business operator was an expert on integrated resource management.

Groups also addressed what was present in the community that will contribute to overall community sustainability and to the integration of adaptive approaches in the future. Among the “bridges” cited were institutions such as the Clayoquot Biosphere Trust, which can be used to create alliances and to unify interests. This may be part of a protocol to accept differing perspectives in decision making. This is critical to shared decision making processes where local input is valued. If these approaches are to work emphasized participants, there must be a commitment to them by those in authority.

There was recognition that there is no single definition of adaptive management and that this must be considered if this approach is to be employed. To address this, components and specific goals relevant to stakeholders of A.M. must be identified. Performance measures and indicators must be established for the journey of adaptive management and these must reflect all cultures in the community. Perhaps the most incisive comment related to adaptive management was that if management is not adaptive, it is simply administration.

Participants also stated that there needs to be a long-term vision for the region. In decision-making processes, there needs to be a shift in focus from immediate to future needs – toward generations to come. The human ecological footprint must be considered as decisions are made.

There was also a suggestion that if adaptive approaches are to be integrated into management processes, there must be an acceptance of “messiness”. Taking risks and risk management frameworks will have to be incorporated. There needs to be a willingness to experiment.

Transmitting the Experiences of the Clayoquot Sound Region

The group was asked what experiences from the workshop and from the Clayoquot Sound generally should be communicated to policy-makers.

Suggestions for government in terms of the manner in which it works with communities included:

- Clarity on the role and jurisdictions of all departments;
- An openness within government for experimentation and risk taking and a commitment to continuous learning;
- A commitment to work toward community goals to being facilitators/enablers rather than controllers. Government’s role was seen as one of creating an “enabling environment”;
- Synthesis of traditional, scientific and local knowledge should occur at the design stage of policy-making, not just the results stage (e.g., questions to guide research); and
- An understanding of the stress placed on municipalities when government downloads responsibility for infrastructure (wharves for example).

The government’s role in helping communities in transition was also discussed. Points raised included:

- Resources should be provided to mitigate risk. Communities are bearing more than their share of the transition burden;
- Governments should work toward diversification and economic pluralism — a community economy cannot stand on one industry;
- Government should provide forums where communities can join together to articulate values. These forums should be a cornerstone of the policy-making process; and
- Government must have effective data management processes to provide effective information to communities.

There was varying views on the applicability of Clayoquot Sound region approaches to other communities. Could other communities learn from the region? Yes. Should other communities develop similar approaches and institutions? Does Clayoquot Sound have “best practices”? There was no consensus on the answers to these questions. There is a sense by some that there have been winners and losers in the region as transition has occurred. There is also a belief that the region has gone from a contributor to the province’s economy to one that is now dependent on government funding. Is this sustainable development?

What was evident as the workshop closed was that the Clayoquot Sound region is a region of innovation and experimentation in governance. It is place where the “old” norms of accountability and relationships between social actors and institutions are being openly questioned and where alternative approaches are emerging. It is clearly a place of “creative tension” – which now takes place in the context of institutions (who work to “share power creatively”) where once it took place in a context of conflict. It is a region where the ongoing cycle of changing power relationships, reorganization and renewal are a part of people’s everyday lives.

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