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From Co-Management to Co-Jurisdiction of Forest Resources: A Practitioners Workshop

October 28-30, 1999
Calgary, Alberta

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From Co-Management to Co-Jurisdiction of Forest Resources: A Practitioners' Workshop Calgary Oct. 28-30, 1999

organized by:
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With funding from NCE, SFM Network

Workshop Proceedings

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Introduction:

From October 28 to 30, 1999, a group of practitioners, researchers and university students from across the country met in Calgary to discuss co-management of forest resources with First Nations in Canada. This meeting was at the invitation of, and funded by, the Sustainable Forest Management Network of the Network of Centres of Excellence (NCE). While co-management is growing in popularity as a management process across the Canadian boreal forest region, practitioners often do not have a forum to meet together. Even though there are many differences between co-management initiatives depending on provincial and federal legislation, policy and land claims, there are also similarities between these experiences. The purpose of the Calgary meeting was therefore not only to more clearly define co-management and discuss major issues such as the institutional structure and funding required for this management approach to succeed, but also to provide the opportunity for practitioners to meet face-to-face to share their experiences and discuss successes, problems and solutions.

It is important to note here that several invited representatives of the southern co-management boards were unable to attend the workshop. As a result, the conference relied on academics and students with working experience and knowledge of these boards to contribute to the discussion. Industry and government representatives were also absent from the workshop. A list of workshop participants and their co-management boards and communities is included in **Appendix I** of this paper.

The workshop was structured as a small gathering to facilitate discussion and networking. Participants were divided into four Working Groups which met both separately and in plenary sessions over the three days. The two major themes the Groups were asked to focus on were: Co-Management Present and Future; and Combining Traditional, Cultural, Local and Scientific Knowledge. The working groups also examined a broad set of questions under each thematic heading, allowing participants to address the issues most pertinent to their own experience. These included questions such as why have co-management, who should be involved in the process, and who should gather and retain ownership of traditional knowledge. Key issues, constraints, and challenges facing communities involved in, or wanting to become involved in, co-management of forest resources were also discussed. Plenary sessions during the workshop provided an opportunity to meet in the larger group, both for presentations of community experiences, and for concluding thoughts and statements regarding the conference themes and discussions. A list of the workshop themes and questions is contained in **Appendix II** of this paper.

The overall impression from practitioners is that co-management has fallen short of what it promised at its outset in Canada. Despite the settlement of northern land claims, legal precedents such as Marshall and Delgamuukw, and the constitutionally-protected Aboriginal right to share in natural resource management, participants agreed that there is a real lack of national and provincial commitment to co-management. In most cases discussed, co-management is not living up to expectations. In some situations it has even become synonymous with an industry and government pay-off for peaceful access to natural resources within traditional territories without any significant alteration of what many communities see as unsustainable industrial structures and practices.

The Calgary workshop ended with a commitment by participants to not be satisfied with the trend towards joint ventures and other weaker forms of shared management that are increasingly being called co-management. However, there was also a strong call to communities and local resource users to take responsibility to ensure that forest co-management means much more than conventional industrial practice, and that co-management continue to be synonymous with a more sustainable way of using resources and of creating healthy communities and maintaining the natural environment. Aboriginal and non-Aboriginal communities must also demonstrate that they can do things differently and sustainably or it will be difficult to justify why co-management should replace conventional management structures and practice. Participants also agreed that co-management has a critical role to play in achieving sustainable forest management in Canada.

The purpose of this NCE White Paper is to present workshop participants' responses to the themes and questions raised in Calgary and to provide a starting point for further debate on these issues. It is intended that this Paper will also assist other practitioners and researchers in their search to find answers and solutions to these issues in their own co-management practice. The cross-fertilization of ideas and experiences and the sharing of support and information by maintaining contact beyond the workshop will be of tangible benefit to community-based co-management projects across Canada. To facilitate its use, this Paper is organized under the headings of the two main themes of Co-Management: Present and Future, and Combining Knowledge, with the questions within each of these forming sub-headings.

Theme One: Co-Management: Present and Future

The main questions addressed during this session include defining the term 'co-management', exploring the purpose, goals and objectives of this process, asking who should be involved and how, and defining the respective roles of communities, government and industry. Participants were also asked to outline what support systems, such as policy, legislation and institutional structures they think are needed in order for co-management to succeed. The second part of this theme asked practitioners to list the key issues, constraints and challenges facing communities involved in, or wanting to become involved in co-management of forest resources. Key successes, and reasons for this, were also discussed.

1. Defining Co-Management:

While participants agreed that one of the greatest strengths of co-management is the great diversity of situations in which it can work, they also agreed that this has led to confusion about what co-management really is. Concern was raised a number of times that many players across Canada, such as the Alberta government and a number of forest companies, are using the term to mean the same as a joint venture, partnership and other weaker management forms which really only focus on conventional economic development. Since Canadian co-management is evolving in a wide variety of situations spanning comprehensive northern land claims, Aboriginal and non-Aboriginal communities, and increasingly in partnership with industry, a great difference in structures and practices as well as expectations and goals are emerging. While there is strength in diversity, this situation also makes defining co-management as well as evaluating and comparing its successes difficult.

Participants agreed that co-management is not a static construct but a continually evolving process that changes over time. Thus, it can be difficult to define since a process that is advisory at its outset may evolve to become full co-management. Indeed, respected academics such as

Fikret Berkes of the University of Manitoba and Evelyn Pinkerton of the University of British Columbia acknowledge that co-management is a continuum that can encompass many different stages of development. In recognition of this, practitioners felt that dismissing any process that does not immediately meet a strict academic definition of full co-management would be a step backwards.

Participants felt that the "co" in co-management places a strong emphasis on working together. Billy Day, an Inuvialuit Elder and long-time co-management practitioner from the Arctic, stated that in his more than 45 years of shared management experience the process is basically "continuing our partnership with the plants and animals" and "working together for the health of the land and future generations". The co-management process should identify common goals of the resource stakeholders and promote dialogue on issues other than just the timber affected by forest development. Co-management is also a mediated process of working together; a means of arbitrating differences and reducing pre-existing and future resource conflict. Finally, this process ensures that both traditional knowledge and scientific knowledge work together to create better resource management decisions that are accepted by a wider range of stakeholder interests.

Co-management agreements can involve local, regional and national governments. Although the most secure form of co-management is found in formal legal agreements such as settled Aboriginal land claims, the process is increasingly taking place between local resource users, an affected industry and government. In conclusion, co-management is a joint management process that brings together local resource users, government representatives and in some cases other stakeholders such as industry together to share the decision making for local or regional resources.

2. Why Have Co-Management: Purpose, Goals and Objectives:

The purpose, goals and objectives of co-management are all closely intertwined and cannot be easily separated. For example, the reduction of resource use conflict and the inclusion of local resource harvesters in planning and decision-making are both a reason for the process and an objective. Workshop participants identified many compelling reasons to implement forest resource co-management in Canada including:
- improved resource management
- meeting legal and policy obligations
- community empowerment and development
- improved relations between stakeholders
- education and training benefits
- integration of Traditional and Scientific knowledge

Co-management improves resource management by facilitating local involvement in decision-making and planning and creating a forum for dialogue and conflict resolution between stakeholder groups. The process also creates a meaningful partnership and trust between local resource users and government in decision-making related to the natural resource in question. For example, a stated purpose of the Inuvialuit Final Agreement (IFA), settled in 1984, was the development and acceptance of a co-management system to ensure local control and management responsibility for resources. A specific goal of the IFA is to protect and preserve wildlife as well as environmental and biological productivity through the application of conservation principles

and practices. Co-management provides a vehicle to achieve these goals by integrating both traditional ecological knowledge (TEK) and western science in the management process.

Participants expressed the view that there are many legal reasons and incentives for government to enter into forest co-management regimes. For example, government can use the co-management process as a way to meet its legal and policy commitments to Aboriginal and other local communities by involving local resource users in decision-making. Government must also recognise that Aboriginal people have a constitutionally-protected right to participate in integrated resource management planning and consultation when resource development may impact their rights to hunt, fish and trap. Participants believe that government in co-management is motivated by the need to fulfill these legal and policy obligations.

Another goal of co-management is to ensure that an equitable share of economic and training benefits are returned to the local level. This is accomplished by requiring government and industry participants to train and employ local resource users to fill resource extraction and management positions. Returning economic benefits and training opportunities to local communities also leads to greater sustainability, as these communities become increasingly self-sufficient. Similarly, co-management helps communities to develop responsibility and a sense of ownership and pride for their resources through meaningful participation in the management process.

3. Benefits and Reasons for Co-Management:
The benefits and reasons for co-management are closely related, and indeed often overlap, with its goals and objectives. For example, the reduction of resource use conflict and the creation of economic development opportunities are both reasons for co-management as well as benefits of the process.

Major benefits of co-management include greater cooperation between government managers, industry, and local harvesters and an increased willingness to explore management alternatives and to allow more local self-management. Forest users can also commit to share the costs of management with government and industry as part of their increased control of resources. However, this commitment is dependent on such control bringing an increase in economic benefits through arrangements like revenue sharing in order to provide sufficient income. Other benefits include a higher degree of organization, self-reliance, credibility, and cultural identity among local forest resource users. Economic development opportunities and real employment and training are also important benefits of co-management. Educational opportunities in traditional, technical and professional areas often result as well as an improved ability of managers and users to develop and successfully implement enforcement regimes.

Forest co-management experience in Canada has conclusively demonstrated that this process can be an effective vehicle to combine both TEK and scientific knowledge. This results in better data collection and analysis and increased communication about resources and species populations. This process also leads to an increased validation of, and support for, TEK in forest management. Greater community involvement in resource planning and management helps to further the goal of sustainable forest management by ensuring that TEK guides management decisions. By bringing together a broader range of interests than conventional management (i.e. not just government, industry or southern interests), co-management also leads to a reduction in resource conflict and

more widely accepted management decisions. This also leads to better enforcement of regulations since the decisions reached by the process have greater 'buy-in' from the participants, particularly local resource users.

There is wide consensus among managers and local resource users that centralized government has failed to sustainably manage forest resources in the interests of local resource users and in the broader interest of the Canadian public. One of the major reasons for this is that conventional top-down management does not meaningfully include local resource users in the management process. Co-management has the potential to develop a different management system since it includes resource-harvesters as equal partners and achieves better integration of theory, planning and practice than conventional management.

4. Who Should Be Involved and the Role of Stakeholders:
During this session participants addressed questions such as who should be involved in co-management, and how the process can most effectively operate. The role of communities, government and industry were discussed as well as which members of each of these groups should be represented. Participants agreed that successful co-management is based on the full participation of local communities and both federal and provincial governments in the process. In the experience of participants, government representatives sit on Boards as part of their job, while representation of local communities is usually by way of individuals already holding elected positions on Game Councils, Village Councils or other existing governing bodies. Concern was expressed that this effectively means that the community representatives are really unpaid volunteers and that this impacts who is involved in the process. Where the co-management board is the result of a Settlement or Treaty, then representatives to the process by the parties to the formal settlement or treaty are usually paid.

• **Community Involvement**
It is often difficult to involve all stakeholders within a co-management process. Some suggestions as to why this is so include the diversity of stakeholders within each community, and the general apathy and lack of interest unless something affects an individual directly. However, it was also noted that "apathy" is not something which needs to be combated as it could well be a symptom of poor leadership, over-consultation, or frustration due to not implementing recommendations. Participants felt that the most important representatives were those of resource users, especially Elders who speak their native language and know the resources best. In communities of Aboriginal and non-Aboriginal inhabitants both groups should be involved.

A critical co-management challenge is to enhance effective community participation at the local level. A significant problem with any shared management process to date is that community needs, values, and aspirations are very difficult to represent because of the diversity of viewpoints and the lack of funding generally available for internal community consultation. The issue of representation (which user groups should be involved and how these positions should be decided), is of critical importance in the success of co-management. For example, should resource user group representatives be elected through a democratic vote, or should the position be decided through nomination or invitation. Similar debate exists on the need to involve people or organizations with radical opinions. Such people can make the work of the board difficult, disrupting the process and even making it unworkable or impossible. However, there are also advantages to having a wide range of views and ideas represented at the table.

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Whether or not the community has respect for, and confidence in, the co-management board members has a significant impact on how the management decisions and authority of the board are accepted. Leadership must be totally involved and supported by the community in the process. Ensuring proper representation of local stakeholder groups is a way to avoid this becoming a problem. In the northern land claims context, existing legal structures such as Game Councils, Renewable Resource Boards and Village Councils should definitely be represented. Participants agreed unanimously that it is critical to involve Elders and youth in the co-management process. This participation could be encouraged by providing apprenticeships, training programmes, delegates to conferences and elder / youth gatherings, public school tours, and professional development opportunities, especially in the related fields of biology and forestry.

• **Government Involvement**
The role of government in co-management is to provide technical, administrative, and financial support and advice to the process as well as to represent wider provincial and national interests. Participants felt that all levels of government, including federal, provincial, regional, and the Tribal Council, should be represented. Government should also be responsible for gathering knowledge and ensuring that both TEK and Western Scientific Knowledge (WSK) are validated and incorporated into the management process. Government representatives must be accountable and be senior enough to make decisions at the co-management table. In the experience of many co-management practitioners, junior bureaucrats who must constantly confer with more senior managers slow down the co-management process and lead to frustration on both sides. Linking outside researchers and support services with community needs and concerns should also be a major role of government in co-management. While representing the national public interest, government must also use co-management as a vehicle to protect traditional lifestyles and way of life in the face of outside development pressures.

All participants agreed that since government currently holds the legal and management responsibilities for natural resources, it is critical that bureaucrats be involved in the process. However, questions were raised as to whether government representatives, whose obligations are to their bureaucratic structures and not to the co-management process, should be appointed to sit as voting members on co-management boards. Participant felt the role of government should be to initiate co-management and to keep the process going as well as ensure that weaker agreements such as MOUs eventually lead to co-management. Government must also make it known to all players that there is a process and rules to be followed. At the same time, government must not slow the process down.

• **Non-Aboriginal Land Users**
Another major issue, particularly in the provincial south where Aboriginal populations are often in the minority, is what to do about third party interests (non-aboriginal land users) who feel that government does not represent them in the process? What should be done in areas where there are no land claim settlements? This debate concluded with practitioners stating that the involvement of stakeholder groups should be adapted to local conditions and that one model will not work for every situation.

• **Industry Involvement**

During this session, there was much debate on the increasing role of industry in co-management. Some participants felt that industry should not be involved at all. Others were of the opinion that since government is increasingly abrogating its management responsibilities through cutbacks and decentralization to industry it is necessary to involve industry in co-management. While this shift of control from a centralized government body to a more regional level may be a positive thing, it also raises the concern of who is watching the watchers? Many participants felt that since industry has a strong vested interest in the forest resource (timber) which is often in direct conflict with that of traditional resource users, industry should not sit on co-management boards or have voting privileges. For example, industry's underlying motivation for involvement in co-management is essentially exploitative (e.g., access to timber, fish, wildlife). Can a vested interest such as industry objectively monitor and ensure that regulations are being followed? If government is neglecting its constitutional obligations to manage resources in the public interest and gives this responsibility to industry, should local communities refuse to participate? While these questions were raised and discussed, no definite conclusions were drawn.

In order to participate meaningfully in a co-management process, industry must recognize Aboriginal rights and settled land claims. Industry must also acknowledge that since people live on the land, their lifestyle and culture will be affected by development. To offset this negative impact, industry must take initiatives to improve economic opportunities and skills training for those communities affected. In some cases, a form of revenue sharing is also appropriate. Workshop participants felt strongly that industry should be viewed as a stakeholder, not a partner, in the co-management process. The success of industry in co-management is based upon a company's willingness to obey the law, be honest, and to take a long-term and holistic view of resource development.

5. What Support Systems Are Needed: Policy, Legislative and Institutional:
This session identified the policy, legislative and institutional support systems that participants felt were required for successful co-management. Participants were adamant that if co-management is planned without the necessary support systems then it is planned to fail. However, they also felt that participants must also be realistic and plan co-management within the limits of the human and financial resources that are likely to be available to support the process.

• Policy Support
It must be the policy of both government and industry to acknowledge Aboriginal rights to participate in the resource management process. These players must also participate in the co-management process in good faith and place a high level of priority on long-term, stable involvement. Government and industry policy must also ensure long-term continuity of their representatives to the co-management process. Finally, government must pursue a policy of facilitating Aboriginal ownership of lands and resources and not use co-management to stall this transfer or substitute it with weaker options such as joint ventures or partnerships.

Government policy must also reflect its fiduciary obligations to Aboriginal peoples since this policy has a major impact on how Aboriginal people are involved in participatory management processes such as co-management. For example, the 1998 National Forest Strategy sets out two tenets regarding Aboriginal people and forest management: (1) forest management practice should recognize and make provisions for the rights of Aboriginal people who rely on forests for their livelihood, community structure and cultural identity and; (2) Aboriginal people have an important

and integral role in planning and managing forest resources within areas of traditional use. Workshop participants acknowledged that the application of these tenets varies widely across the provincial landscape due to differing provincial policies and attitudes towards co-management. However, the practical reality of economic development and the reliance upon forest resources by non-Aboriginal citizens means that government managers must meet their obligations to Canadians as a whole while pursuing a policy of protecting Aboriginal interests. Co-management is an appropriate vehicle for this endeavour since this process aims at achieving reconciliation between the different cultures, knowledge systems and worldviews of Aboriginal and non-Aboriginal resource users.

• Legislative Support
Workshop participants agreed that legislation that entrenches both co-management and Aboriginal rights and ownership of lands and resources is a cornerstone of successful co-management. However, although this issue was discussed, no participants had any specific proposals or suggestions as to what needs to be done to address existing shortfalls.

• Institutional Support
Adequate institutional support, such as a secretary and access to a phone and meeting place, is critical to the co-management process. This support should ensure sufficient funding as well as technical and skills training for participants, community capacity building, and a budget for travel to conferences and other related meetings to facilitate networking between co-management boards. Institutional support such as formal operating bylaws and rules for decision making must also be developed. Since board composition eventually changes, the formal adoption of bylaws helps to ensure that a future board follows the intent and fiscal policies of the existing one.

Secure, long-term financial support is particularly important to the success of co-management. Some participants felt that while it is important to have initial funding available to get community members properly involved in co-management and be able to match the resources of government or industry, a community should start to generate its own income to support the process and not wait to secure external financing before it starts moving towards co-management. This view is somewhat different from the northern land claim experience where full government funding of co-management boards was negotiated as part of the settlement process. During the workshop discussions, some practitioners saw government funding as a ploy of government to control co-management, an umbilical cord that keeps Aboriginal people disenfranchised and dependent. The only way out of this situation is for Aboriginal to contribute their own funding to their co-management processes. "Those who pay the piper pick the tune". There are many ways to achieve this including revenue-sharing with resource users, seeking grants from non-profit foundations and other alternatives such as casinos. Without this self-sufficiency, some participants felt that Aboriginal will never be equal partners in the regime and will remain captive to the current issues of "strings attached" funding and allegations of conflict of interest. While financial support can come from different sources, participants must continue to be aware of the strings that may be attached to this. For example, an offer of funding from an industry that stands to benefit from the co-management or a local lobby group may by unacceptable.

Participants felt that in principle, money from resource use should be returned to fund co-management. For example, a portion of revenue generated from resource extraction could be allocated to develop and support institutions and to cover costs of resource management. One

participants recounted the example of Pine Falls, Manitoba, where one forest company now returns 1% of its profits back to the community to fund community-driven projects. The company does not see this as simply giving money back but as an investment in their future as well. In Beauval, Saskatchewan, co-management is funded by two forest companies (NorSask and Weyerhaeuser), and a number of other sources with no government contributions. While there is concern in the community that the current funding arrangement ties the Board too closely to industry, the Board prefers this arrangement as it enables them to make decisions without feeling obligated to toe the government line.

6. Key Issues, Constraints and Challenges:
Workshop participants identified a large number of key issues, constraints and challenges that can limit a community's participation in forest resource co-management. These include such things as a lack of community capacity, community health issues, access to long-term funding, stakeholder representation, and a lack of conflict resolution procedures.

One of the most commonly identified constraints is that of a lack of capacity and technical, logistical, and financial expertise within communities. Community capacity refers to the ability of communities to meet co-management needs such as experienced translators, secretaries, and leadership from within each community instead of relying on outside consultants. Most practitioners cited an urgent need for local people with leadership, negotiating, secretarial and organizational skills to undertake management responsibilities. For example, leaders must have enough management skills to care for participants and prevent burnout. With so many different, and often competing, interests represented, there is a great need for leaders and participants with strong diplomacy and cross cultural sensitivity skills. Co-management practitioners also cited many problems with training and keeping these people involved in the process. As in industry and government, there is a problem that once an individual has received training and management experience, he/she often leaves for a better job somewhere else. In order to prevent "brain drain", Boards must pay competitive wages. Participants in the co-management process also need to gain something from their involvement. This might include desired skills, respect from their peers, or a sense of accomplishment through their participation.

The co-management board should provide on the job training to improve the capacity of members. When outside experts must be hired a "replacement" policy must be built in to ensure that the community builds capacity. Successful examples of this include contracts whereby the consultant has a trainee who 'job shadows' while the consultant 'works themselves out of a job'. Finally, a goal of capacity building should be to give traditional resource users and community representatives the ability to articulate their concerns in a medium that government and industry understand and to educate these other players to acknowledge traditional knowledge and methods.

In addition to strong leadership skills, there is a need for communities to be proactive and to keep government and industry answering questions instead of always responding to these interests reactively. For example, an Elder may hold a vast wealth of bush knowledge that would significantly reduce the impacts of forestry activities on moose habitat, but she may not attend a board meeting and voice her concerns unless these activities are about to negatively affect her trapline. This reactive approach often means that important knowledge and information is received too late in the planning process to influence the development. Participants noted that

there is often a direct relationship between strong co-management leadership and the proactiveness of a board.

Another potential issue is that co-management may be seen as assimilation in disguise, an endeavour that paves the way for development without any significant change in the status quo in which many Aboriginal communities are disadvantaged. Participants also agreed that some processes in co-management are very insidious and undermine Aboriginal rights, culture, language, and aspirations. For example, a lack of existing management experience and structures at the community level often leads to western regimes, knowledge, and parameters being imposed, and unequally forming the centre of the process. As a result, local systems of knowledge and management are often invalidated and ignored by the process. In order to avoid this common situation, participants must take responsibility and be critical of the dominant cultural ideology and motivations. Being proactive in their approach to management and not simply accepting the dominant systems and structures will help co-management boards to avoid this problem.

Practitioners felt that community health and capacity were strongly related to the success of co-management regimes. Indeed, co-management should strive for not only environmental, but economic and social sustainability if it is to be successful in the long-term. It is therefore critical that co-management provide training, employment, education and other opportunities to local inhabitants. Workshop participants identified a lack of education, apathy, and the legacy of decades of learned dependency as major community health issues which must be addressed in conjunction with co-management development. Another related issue is that of jealousy and internal conflicts between those in communities who benefit directly from resource development and those who do not.

Training and education opportunities offered by co-management have the potential to strengthen community health as people gain skills and feelings of pride and self-worth. Other related issues include the reluctance of many community members to leave the community to receive training, internal divisions, and jealousy of members who do not benefit directly from the co-management. Unmet basic needs like decent housing and social issues such as family violence and drug abuse also prevent members from being able to focus their attentions on issues such as forest co-management. Finally, generations of learned dependency through welfare and other government support programmes have created a situation in which self-sufficiency and strong leadership are difficult to find. To meet these challenges, it was suggested that co-management goals and process should be added into the school curriculum and youth should be made aware of their many options for their future. For example, youth could undertake work placements with co-management boards and with related industries and government.

As discussed in the previous section, access to long-term funding and administrative support for the regime are critical if the co-management process is to be a success. Also of concern is the currently limited opportunity and ability of most Aboriginal people to generate independent funding to participate in co-management. This has resulted in some co-management participants feeling that the process is not as independent from government and industry interests as it should be. In turn, these concerns (whether justified or not) have led to limited acceptance of management decisions by some communities.

Another major concern is that of stakeholder representation on the co-management board. For example, which individuals or groups most effectively represents communities, government, and other interests? Community representation and election of board members is often difficult since there is rarely a budget for consultation and communication with larger user groups. Unless all stakeholder groups have confidence and trust in their representatives on the Board, the process will not have enough support to succeed. Trust must also exist between Board representatives and government and industry players. In the Haines Junction experience, Aboriginal representation at public meetings is low. Elders more often attend fishing and hunting meetings, not forestry, because forestry is not a traditional land use. To choose members for this co-management board, the Band Council nominates the names and the communities select who will take the position. The Band may not nominate some people due to personal and other reasons since this Board is small and 'one rotten apple may spoil the bunch'. Another issue in electing stakeholder representatives for co-management boards is that stakeholder interests often do not have their own formal group or phone list. Many practitioners also felt that there is a lack of accountability between local leadership and the community, which leads to corruption and a lack of equal participation within communities; for example most boards are dominated by older male members and do not represent other resource users such as women and youth. Most practitioners cited a lack of youth or women's representation on their board as a concern.

In order for co-management to be successful, active resource harvesters with knowledge of the land must be involved. This creates a paradox since co-management requires a large commitment of time and resources on behalf of participants, thereby removing the most knowledgeable and experienced harvesters from the land for these periods. Their participation therefore represents time that they do not spend on the land teaching and practicing their skills and knowledge and passing them on to future generations. Co-management also often creates a western-style bureaucracy that detracts from the stated purpose of many land claims settlements: the preservation of Aboriginal language and culture. One solution to this dilemma is to reduce the role of outside consultants in this bureaucracy and to train replacements from the community.

Due to the large number of interests, participants, and occasionally the long distances that are involved, co-management may build a huge bureaucracy that can remove the process from the local level and disenfranchise local resource users. Since such a bureaucratic process favours individuals who feel comfortable operating in a western-style management system, some stakeholders such as Elders and women do not feel as comfortable participating as other community members like Band Council representatives. This situation also means that select individuals stand to benefit more than others through their participation. For this reason, it is important that co-management boards operate with strong conflict of interest regulations that prevent Board members from profiting unfairly, or the perception of this, by their participation.

Conflict resolution is an important challenge in successful co-management. The aim of the process is normally to establish consensus, but the formal agreements also need to set out ways to resolve conflict when consensus fails. Government reluctance to share power and its historically paternalistic attitude toward Aboriginal people also contribute to this conflict. Language, cultural, and ideological differences between the various participants also make conflict and misunderstandings fairly common during the early stages of co-management.

Slow government decision-making is another challenge to co-management. This can be very frustrating for all participants, including the government representative on the board. One way to avoid this problem is for government and industry managers to commit to sending only senior personnel to the co-management table who are able to make decisions without conferring with others in their departments. This is often difficult for each stakeholder group since most players, including government, are overworked and 'wear too many hats' within their groups. Poor communication and division of responsibility for overlapping issues within government are also cited as major sources of conflict and frustration with current co-management experiences.

Workshop participants agreed that some of the most important challenges, and ones that have not been widely discussed in the context of co-management boards, are the pervasiveness of industrial forestry methods, the currently unsustainable rate of cut, and the out-dated tenure system. Since these are all barriers to sustainable forest management, these must be addressed and resolved in order for co-management to be successful. The federal government is also directly responsible for colossal mismanagement on Aboriginal Reserve timber lands in the form of unregulated logging, timber sales, toxic dumps, and other activities. In general, these forests have been liquidated with little or no local employment and are now in far worse condition than national forest lands. This legacy is a challenge that co-management can not easily address without significant government support and funding.

As part of understanding the benefits of co-management, workshop participants also looked at reasons for not having it. For example, poor agreements that do not adequately protect community knowledge and sacred sites can potentially disadvantage the affected communities. Situations where impacts of resource use decisions go beyond the local community, for example, with species and resources whose survival has strong national or international implications, may also be inappropriate for a local co-management process. Practitioners also felt that co-management is inappropriate if it involves privately owned land or trans boundary issues such as migratory bird or mammal species that cross regional, territorial and/or provincial boundaries.

7. Key Successes and Reasons For Them:
A major goal of the Calgary co-management workshop was to provide a forum for co-management practitioners and researchers from across Canada to share their success stories and reasons for them. According to practitioners, successful co-management is that which demonstrates an equal partnership (examples of this mentioned were the Gwich'in Renewable Resources Board and the Inuvialuit Final Agreement, and none was found for forestry specifically) and a track record of sustainable management that protects a way of life for future generations. Participants such as Aboriginal communities, governments and others must be content with the process and the resulting management decisions. Good relationships between participants and a respect for and acceptance of different values help to minimize conflict and lead to a high level of trust - both signs of successful co-management practice. These also result in mutual learning, which many practitioners cited as a key benefit of co-management. Long-term arrangements such as the IFA are also more likely to be successful than ones that are short-term with an uncertain future. A willingness to consider and integrate indigenous and western science are also important ingredients in successful regimes. Sharing of economic benefits to support the process and local communities is critical, as is a common vision for the process. It is particularly important that the different participants in the co-management have a shared vision. However, these participants will also have their own goals. Some of these goals may be shared, but often

they will be different from each other. Each participant needs to be able to meet (or move towards) their goals.

The Gwich'in Renewable Resource Board (GRRB) was cited as a co-management success story. The Board was established in 1992 as part of the Gwich'in Comprehensive Land Claim Agreement and is the main instrument of renewable resource management in the Gwich'in Settlement Area. The Board attributes its success to providing a regular forum for resource users to express their concerns and for government and industry managers to receive feedback on their development plans. Communities that were traditionally isolated now have a common voice to learn from each other (avoid reinventing the wheel) and can present a united stand on issues that affect them all to government and industry. The Board has been quite effective in combining traditional environmental knowledge with western scientific knowledge in the management of renewable resources. For example, the GRRB regularly hires community field workers to undertake research, and the six Gwich'in representatives on the Board all bring past experience with resources and knowledge of the land and people to the process. Ongoing co-management projects include the Gwich'in Harvest Study, Gwich'in Environmental Knowledge Project and the Community Forest Use Survey. The GRRB has also been successful in obtaining outside funding for trainee positions, research projects, and other community based research and management projects.

A significant factor in the success of the GRRB is the availability of appropriate funding. For example, the GRRB maintains a full-time staff support team of 10 to 12 including administrative and professional staff. From 1994 to 1998 almost $960,000 was spent on traditional environmental knowledge projects in the Settlement Area. Working cooperatively with the Community Renewable Resource Councils and the relevant government agencies to address research needs and to make management decisions has led to wide community participation and acceptance of Board decisions. The current Chair of the Board, Robert Charlie, attributes the success of the regime to the fact that the process and resulting research are essentially community-driven. The Gwich'in people have a strong tradition of working cooperatively together, for example while hunting, and this experience and tradition has lent itself to the co-management process. A unique aspect of the Gwich'in Board is that meetings are held in different communities, where members are billeted out for the night to different families. This gives the Board greater visibility and connection to each community.

In northwestern Saskatchewan, co-management of forest resources has developed between NorSask Forest Products and a number of local communities. In the Beauval community, success of the regime is attributed to a strong and healthy community with charismatic leadership and a lack of government participation and control.   Beauval provides a unique co-management example as participants are adamant that a lack of government control and involvement at the start of the process has allowed co-management to evolve to suit the community's needs without undue outside influence. The paradox inherent in this situation is that although this lack of government involvement has created a process appropriate to the community, it also means that the process has little long-term security or support of government. Another unique aspect of the Beauval Co-Management Board is that the main forest company involved has recently been taken over completely by the Meadow Lake Tribal Council, an economic amalgamation of nine local Aboriginal bands. This puts the nine operating NorSask co-management boards in the position where local Aboriginal groups are both the forest industry owners and community residents. It

has yet to be determined if, or how, this situation will impact the existing forest management systems and community acceptance of co-management decisions.

The only other successful co-management regime discussed in depth by the groups was the IFA. For example, the goal of the IFA is to protect and preserve wildlife, environmental and biological productivity through the application of conservation principles and practices (IFA). The IFA experience was considered successful as government bodies provide technical expertise, but the communities have final control over the process. Other examples identified by participants of successful joint decision-making (a lower form than full co-management) include: the Ahousaht Ethnobotany Project, the South Baffin Beluga Committee, the Inuvialuit/Inupiat Polar Bear Agreement, and the NTI (Nunavut) initiative to replace the existing whaling quota system with traditional forms of 'managing' Narwhal and Beluga.

Practitioners cited many reasons for the various successes of their co-management regimes. High on this list is government willingness to participate in the process with good faith and community buy-in. Key general successes include learning from mistakes and gaining management experience, empowering community members to regain management responsibility for traditional resources, and of individuals returning to school to gain more education. The development and use of a consensus model of decision-making was also cited as a major success of these co-management experiences. Other factors contributing to successful co-management include local leadership, prior capacity of participants, prior experience with institutions, and a sufficient land base and natural resources to allow sustainable management. In the settled claim regimes, the government to government relationship with the ability to change legislation and regulations was cited as a major reason for success.

In order to create regimes that are successful in the long term, practitioners were adamant that each board must first take a long term vision to maintain optimism about the process. At the least, traditional use, traditional knowledge, and traditional governance must be on the agenda. There is also a need to establish minimum criteria for monitoring and measuring co-management success so that groups can evaluate their experiences and compare their problems and solutions with other boards. Workshop participants agreed that although there are many other factors and issues which will affect the way in which theses are achieved, the three crucial elements of successful co-management are :
  (1) equal partnership in decision-making
  (2) sustainable management of resources
  (3) protection of people's way of life.
In conclusion, practitioners agreed that ultimately, it is those most affected - the local communities, resource users and youth who will inherit the land and lifestyle - who should judge success of a co-management process.

Theme Two: Combining Traditional, Cultural, Local, and Scientific Knowledge

1. What is Local Knowledge:

Participants agreed that there are differences between the terms local knowledge and traditional ecological (environmental) knowledge (TEK). In general, local knowledge is knowledge that is rooted in a specific geographic location and may be held by both indigenous and non-indigenous people. Traditional Environmental Knowledge is rooted in a cultural context within that geographic location and includes values and subjective components. While both local knowledge and TEK are based on observations about the land and its resources and may be orally transmitted over time, TEK is usually based on a much longer series of observations. TEK includes a responsibility to look after animals and the land and is not lightly shared with outsiders. While spirituality and ritual are integral in some cases to TEK, this does not reduce the practical aspect or the usefulness of this knowledge. The term 'traditional' can be problematic here since it connotes romantic ideas, and implies stasis when it really means cultural continuity. TEK is contemporary: it is constantly evolving and dynamic, incorporating technical and environmental change. Martha Johnson's definition in her book Lore was given as an example of a good definition of TEK:

> TEK can generally be defined as a body of knowledge built up by a group of people through generations of living in close contact with nature. It includes a system of classification, a set of empirical observations about the local environment, and a system of self-management that governs resource use. The quantity and quality of TEK varies among community members, depending upon age, social status, intellectual capability, and profession (hunter, spiritual leader, healer, etc.). With its roots firmly in the past, TEK is both cumulative and dynamic, building upon the experience of earlier generations and adapting to the new technological and socioeconomic changes of the past. (p.4, Lore)

In western society, science is equated with truth. Thus, indigenous people, describing themselves as 'scientists', validate their knowledge in a way that gives them legitimacy in western culture. Participants strongly believe that Elders' knowledge is far more valid and has a longer history than western science as it has gone through thousands of years of 'peer review' on the land. One of the reasons that it is so difficult to blend TEK and WSK through processes such as co-management is that there is an inherent contradiction in these two approaches to knowledge. While TEK is based on trust and respect for Elders knowledge, WSK is based on mistrust and trying to falsify claims. While TEK is a process of learning through response and observation, WSK learns though control and manipulation. The documentation of TEK through scientifically-accepted land use and occupancy studies was cited by a number of practitioners as a way of bridging this gap.

Practitioners agreed that all of the debate and semantic arguments about the definition of TEK and local knowledge are much too complicated. Thus, TEK can be simply described as a way of life or bush rules. A participant from the Whitefish Lake First Nation in Alberta summed up the discussion by stating that "the people don't really care what it's called, as long as they are heard!"

2. How Can Local Knowledge Best Be Obtained:

The discussion during this session focused on the questions of who should collect this knowledge, who should be interviewed, and what guidelines and methods for collecting need to be followed. A major conclusion was that people should not assume that co-management board members are always the best source of knowledge and answers, and should actively seek information from other community members.

A significant problem with collecting TEK is that people are not out on the land as much as they used to be. One practitioner stated that "data collection is not happening like it used to". Therefore, the issue of who should collect the knowledge is not as clear as it once was. This can result in bad judgments. For example, one practitioner mentioned that if a person goes out trapping only once, as opposed to many times in the past, he may see no sign of moose. He may then conclude that there are no moose in his area, which may not be true. On the other hand, many Aboriginal communities now have active heritage departments, cultural programmes and even their own museums and craft groups. These institutions have a key role to play in collecting, storing and disseminating TEK.

Since the majority of young people are now in school instead of out on the land learning traditional knowledge, it is critical to involve them in any collection process. For example, students could interview their older family members as part of a traditional land use mapping project at their school. This would help to ensure that this knowledge is passed on to the younger generation and not "lost in a dusty filing system somewhere". Whoever collects TEK should be someone who knows what to do with the knowledge and ensure that it is not lost or used inappropriately once it is collected. Documenting TEK should most importantly be a process that occurs within communities. Programmes, like those proposed by the Nacho Nyak Dun, promote intergenerational learning and the oral transmission of TEK. In this model, Elders and youth work together on the land and in the communities. The interviewing is done by the youth, thereby giving them direct experience of bush rules and life on the land.

Gwich'in Elders have recognized that TEK must now be passed on in part through the school system and have mandated that a major function of their co-management process is "to collect and document knowledge". However, practitioners voiced concern that too much responsibility for TEK transfer is being placed on schools. Families must take direct responsibility and get involved, both at home and through the school system. Another problem with relying too heavily on schools is that some communities may lack the leadership to initiate and conduct their own traditional use survey. In this case, the use of an outside consultant could help the process and assist in fund raising. The knowledge would be collected by local people and coordinated by a consultant, who trains someone to do their job for the next time.

Another critical question regarding TEK collection is who should be interviewed. While most people who have moved on to the land have local knowledge, this is not as long-term as the TEK held by those who have lived and worked on the land all of their lives. Most of the younger generation only has a piece of the knowledge necessary to undertake traditional activities such as running a trap line and do not have the wholistic knowledge and perspective that the Elders do. Therefore, the oldest and most infirm members of a community should be interviewed first in case they pass away soon. Mike Robinson of the Arctic Institute mentioned the example of a traditional land use mapping project he was involved with where a significant portion of the

traditional territory studied appeared to have no cultural or hunting use. The study concluded that this 'gap' actually resulted from the fact that the Elders with that knowledge had already passed away before their knowledge could be recorded.

Practitioners felt that it was very important to follow clear guidelines and methods for collecting TEK. One Elder felt very strongly that "people shouldn't just walk around and ask the Elders, but go out on the land with them, and leave enough time to do it properly". Suggestions for appropriate guidelines include using oral interviews instead of written questionnaires, to go out on the land for a period of time, and to be prepared to interview the same Elder many times and listen to the story telling that holds the wisdom and knowledge. Interviews should be conducted in the native language and protocol such as gift-giving should be followed. Interviewers should also avoid a scientific 'filing system' where Elders are asked to stuff their TEK into gaps that scientists think are missing. Elders must also be told clearly before any interviews begin who will use the TEK, what for, and who will have access and ownership of it.

Workshop participants felt that TEK should not be mainly about "obtaining knowledge", as this suggests that TEK is being collected by researchers and that local people are there only to act as informants. A more inclusive and participatory process based on a two-way flow of information was the preferred method. The word 'obtain' also implies acquiring TEK and removing it from the community. This is equivalent to appropriation, objectification, abuse, misuse, exploitation, and exclusion of this knowledge. The word obtain also implies 'taking' or divesting Aboriginal people of their knowledge. One workshop group suggested that two sorts of obtaining and collecting TEK need to be recognized. Firstly, new observations by practitioners which add to the existing body of TEK. Secondly, the collection of TEK by researchers (either local or exterior), Heritage Centres, or others for the purposes of documenting, storing, maintaining or comparing TEK.

Concern was also raised that documenting TEK is an easy way for companies and government to 'consult' and avoid face-to-face relationships with Aboriginal groups. Resource managers, in 'obtaining' TEK also remove it from its cultural context. In many instances, neither TEK nor the protocols involved in its transfer can be understood outside of its cultural context.

3. Who Owns This Knowledge:
There is a long history in Canada (as elsewhere) of researchers arriving in communities, collecting information, then leaving and never being seen or heard from again. Trust must be built in order to get past the feelings of resentment and mistrust that this has caused. Not dealing with this issue immediately will hinder collaborative work such as co-management. However, focusing entirely on this can also hinder collaboration and breed unnecessary mistrust and suspicion between the parties.

Like many settled land claims, the Champaign people in the NWT have a Heritage Centre that all researchers must propose their research to before any information can be gathered. It is now common for agreements to involve joint copyright of information and other controls on who 'owns' and distributes this information. The current trend is for Aboriginal communities to copyright, protect and not share their TEK. This approach is problematic, however, since medicinal plants such as ratroot were often used by many groups. As well, intellectual property laws are inadequate to protect TEK since existing legislation assumes that knowledge originates with a unique individual rather than belonging to the collective, which is often the case with

Aboriginal groups. The Gwich'in approach to this issue has been to gather TEK and put it out into the public domain where all can learn and benefit from it. The Elders felt that although this is Gwich'in knowledge, the benefits of sharing it are greater than those of hiding it. Many Elders do not understand the issues of copyright. As a result, they do not share much of their wisdom. This is a very frustrating situation for the Elders, other community members and for the researchers who want to document this knowledge so it is not lost to current and future generations. Some Elders are also asking to be paid for their TEK, even if it is Aboriginal researchers who are asking.

4. Integrating TEK and Western Scientific Knowledge:
The integration of TEK and WSK in resource management is a stated goal of most co-management regimes. Although there are obvious benefits of this approach there also remain many challenges and barriers to its implementation both in theory and in practice.

Typically, WSK frames the questions and TEK is simply incorporated into this dominant model to inform environmental management. Since TEK is the foundation for community environmental management and is valid in its own right, the current piecemeal inclusion of TEK is inadequate. Workshop participants felt that the integration of both TEK and WSK should be based on a mutual respect for each method; one should not be used to 'disprove' the other. Some practitioners advocated a parallel process of shared-joint decision making. In this system, both perspectives are reviewed, they are seen as complementary, and the strengths and weakness of each system are recognized. This implies that resource users must be equitably and meaningfully involved in the management process along with government (scientific) managers.

Practitioners identified a number of key constraints and challenges that in their experience hinder integrating TEK and WSK in forest co-management. These include treating knowledge as a commodity, and overcoming paternalism and chauvinism about both forms of knowledge. It was suggested that this problem could be addressed by further education, cross-cultural training and capacity building for scientists, resource managers, and Aboriginal people. Billy Day, an Inuvialuit Elder involved with Hunters and Trappers Committees since the early 1940s, gave the example of government biologists who spent over a hundred thousand dollars studying the denning and migration habits of polar bears only to discover exactly what the Elders had already told them orally. Examples such as this are fairly common, and serve to illustrate the value and validity of TEK in modern management systems. Practitioners also agreed that community control of research and its products is vital if TEK and WSK are to be integrated through co-management.

A number of conclusions pertaining to researchers and educational institutions came out of this workshop session. Practitioners felt that researchers and boards should not concentrate on documenting specific TEK, rather, they should focus attention on actual ways of doing and systems of managing. A major goal of this process should be to rebuild local culture and language systems. While outside researchers can be used as a tool to promote cultural reclamation, these professionals need to build their cross-cultural skills and sensitivity. The discussion about TEK also highlighted the need for drastic changes to the science and resource management programmes of existing educational institutions. Practitioners felt that these centres of learning need to teach different realities, knowledge systems, and values if they are to produce graduates who can successfully participate in natural resource co-management with Aboriginal communities.

Emergent Themes and Conclusions
An overwhelming conclusion of the Calgary workshop was that a radical critique of existing co-management must be initiated. Throughout the workshop practitioners frequently returned to the implausibility of 'co' under existing regimes. They also felt that co-management can never gain an equal standing with existing institutions since current co-management is highly bureaucratic, and predisposes itself to certain structures and outcomes which do not leave room for unique responses and institutional arrangements. However, while many participants criticized what they saw as highly bureaucratic structures, the IFA and GRRB are both very structured co-management institutions which are considered success stories. Even though the group did call for a re-examination of what co-management really is and where it is heading, most participants described their particular regime as successful. It was unclear whether this paradox was due to a gap between what academics think is 'true' co-management and what actually happens in practice, or whether there was a deeper division at stake.

Workshop participants felt that the majority of co-management regimes do not really incorporate both WSK and TEK. Also, government is not dealing with the underlying issues that are preventing the major co-management goal of sustainable forestry. For example, the tenure system which unfairly disadvantages community forestry initiatives and small operators and supports the currently unsustainable rate of cut and ecological devastation.

During the three days of the workshop, practitioners compared notes and experiences from across Canada. A significant conclusion of this sharing was the realization that the majority of provinces are far behind northern Canada, to the point of embarrassment. The discrepancy in co-management agreements and forms between the provinces and the territories was attributed to two main factors: that Aboriginal people comprise a much higher proportion of the population in the north and; the federal government seems willing to go further in co-management than the provinces. For example, despite strong legal obligations for co-management, the Alberta government is promoting a version of 'cooperative management' which they vaguely define as 'consultation and cooperation on matters of mutual interest'. The Alberta approach appears to consist of joint ventures for conventional economic development based on industrial forestry. Participants agreed that co-management has become synonymous with joint ventures in many instances. Indeed, even the National Aboriginal Forestry Association (NAFA) has moved its policy focus from sustainable forest management to advising Aboriginal groups as to how they can best negotiate better timber deals with industry and government. While these agreements often lead to short term employment for band members, the training and other capacity-building critical for long-term sustainable forest management and employment are generally lacking.

There is also a false assumption that just because Aboriginal or other local communities are involved, forest co-management practices will be sustainable. It is extremely difficult for unhealthy communities to undertake the management responsibilities and functions required for successful co-management. The example was given of unsustainable timber harvesting in Alaska which took place after local Aboriginal communities were given rights to timber resources. Local control and ownership of forest resources therefore does not always lead to sustainable forest management. The assumption that combining co-management, Aboriginal groups, and local control automatically leads to sustainable forest management has not been proved by experience.

Workshop participants also noted that the increased involvement of Aboriginal communities in forest management has led to internal community conflicts related to how this development should take place. The recent Marshall decision on the East coast, which resulted in widespread civil disobedience and violence, is an example of the conflict that can happen within communities. Participants felt that these sorts of issues illustrate the need to critically assess what co-management actually means, whether it achieves its promise, where it works, and why. This issue also relates to the conclusion that co-management participants need to be more self-critical and self-reflective and take responsibility for evaluating their regimes.

Co-management of forest resources under conventional systems does not automatically lead to sustainable forest management. Central issues such as the current tenure system, unsustainable annual allowable cuts, and the incredible pressures faced by many communities for economic development and self-reliance must be addressed prior to a co-management process. Participants also acknowledged a great need to move from a focus on power-sharing to community-driven initiatives - to reconnect people to the land and to increase local responsibility for resource management.

In conclusion, the Calgary workshop attained its goal of sharing co-management experiences among practitioners and creating networking links across the country. This sharing of experiences and integrating practice and theory demonstrated how co-management is helping to improve the quality of resource management as well as reconcile cultural differences. However, the workshop also demonstrated that co-management in Canada still has many problems and has not lived up to the early hopes and aspirations of many practitioners. It is the hope of the Calgary workshop participants that this paper will provide a starting point for further debate and solutions to these issues.

Appendix I - Workshop Participants

Doug Van Bibber: Nacho Nyak Dunn, Yukon

Richard Binder: Inuvialuit Game Council, NWT

Cynthia Burger: University of Calgary, AB

Jeff Chalifoux: KeeTasKeeNow Tribal Council

Fiona Chambers: University of Victoria, BC

Robert Charlie: Gwich'in Renewable Resource Council

Randy Courtoreilly: Whitefish Lake Fist Nation, AB

Michael Crawshay: Alsek Renewable Resource Council, Yukon

Billy Day: Inuvialuit Game Council, NWT

Robert Grey: Whitefish Lake First Nation, AB

Kelly Hayes: University of Calgary, AB

Sherry Horvath: University of Calgary, AB

Leslie Main Johnson: University of Alberta, AB

Janna van Kessel: University of Alberta, AB

Naomi Krogman: University of Alberta, AB

David Lertzman: Arctic Institute of North America, AB

David Natcher: University of Alberta, AB

Martin Pelletier: Universite Laval, Quebec

Mike Robinson: Arctic Institute of North America

Monique Ross: Canadian Institute of Resources Law, University of Calgary, AB

Erin Sherry: University of Northern British Columbia, BC

Peggy Smith: National Aboriginal Forestry Association/University of Toronto,

Stella Spak: University of Toronto, Ontario

Marc Stevenson: University of Alberta, AB

Tanja Schramm: University of Alberta, AB

Leslie Treseder: University of Alberta, AB

Debra Wortley: University of Alberta, AB

Stephen Wyatt: Universite Laval, Quebec

Appendix II: Workshop Themes and Questions

Theme One: Co-Management Present and Future

Working Groups: Session One
1. Why have co-management?
   • purpose
   • goals and objectives
2. Who should be involved? How?
   • role of communities / who in the communities?
   • role of government
   • role of industry
3. What support systems are needed?
   • policy, legislative and institutional systems

Working Groups: Session Two
1. What are the key issues, constraints, and challenges facing communities involved in, or wanting to become involved in co-management of forest resources?
2. What have been key successes? Reasons for success?
3. Additional comments / recommendations

Theme Two: Combining Traditional, Cultural, Local and Scientific Knowledge

Working Groups: Session Three
1. What is local knowledge?
2. How can local cultural knowledge best be obtained?
   • who should collect the knowledge?
   • who should be interviewed?
   • guidelines and methods for collecting this knowledge
3. Who owns this knowledge?

Working Groups: Session Four
1. How to combine local knowledge with western scientific knowledge
   • what are the key issues / challenges?
   • who will want access to this knowledge? For what?
   • what methods of documentation should be used? Why?
   • how can it be used to influence decision making?
2. What have been the key problems or challenges in obtaining this knowledge? Why?
3. What have been the successes? Why?
4. Additional comments / recommendations