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Traditional Knowledge in Environmental Management? From Commodity to Process

by

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INTRODUCTION

Firstly, I would like to thank Harry Bombay of the *National Aboriginal Forestry Association* for asking me to speak to you today about the issue of traditional knowledge (TK). Secondly, I would like to state that I'm no TK expert. I have no TK. Even if I did, I wouldn't know what to with it. Nor am I an Aboriginal person. Even though my grandfather was Métis, I was not raised as an Aboriginal person, although I was taught to respect people of all cutures. Nor am I a biologist, an environmental manager, or a conservation bureaucrat. So what qualifies me to speak to you today about TK?

First and foremost I am an anthropologist. Before everyone bolts for the exits, bear with me. Not too long ago, an anthropologist's main role was to study and record primitive cultures before they disappeared forever under what the advancing horde of civilization called "progress." I am sure most of you are familiar with the old "saw" that a typical northern Native family usually consisted of an adult couple, their married and unmarried children, an elderly parent or two, and an anthropologist. Reports of strange and fascinating customs captivated the general public, and we sought comfort in the fact that anthropologists were recording a vanishing way of life. Back then anthropologists, not Aboriginal people, were viewed as the experts of Aboriginal cultures.

But guess what? Aboriginal cultures, customs, traditions, and values have survived — battered and bruised though they may be by decades of oppression. Anthropologists can no longer claim the high ground or be viewed as experts of any culture other than their own, and even that is doubtful. There is no way, no matter how much time an anthropologist spends immersed within an Aboriginal culture, that s/he can know it or experience it the way people who were raised in that culture do. Aboriginal people are the experts of their cultures; outsiders like me are just students.

All people in all cultures are brought up to think and act in ways that are culturally determined. Despite the claims of those *cultured in the western scientific tradition*, no one culture has a monopoly on the "truth." As gender-based dominance relations and Judeo-Christian concepts, which separate "man" from nature, are programmed into western scientific knowledge, it may be just as value-laden and culturally scripted as TK (Cashman 1991). In short, there is no single way to define, interpret, experience, or know reality.

As an anthropologist trained to be critical of the assumptions and motivations that structure and guide human thought and behaviour, I cannot win. Sometimes when I question the concepts, terminology, philosophies, and procedures used by conservation bureaucrats who sit on the co-management boards for whom I have worked, this "I smell something, and it's not good look" comes over their faces. (By way of warning, many environmental managers, who have a vested interest in maintaining the *status quo* with respect to TK research, might take offence with this presentation. My advice to them: Run, don't walk to the nearest exit, get out while you still can!) On the other hand, when I try to express what Aboriginal representatives on these boards are saying in terms that makes sense to "wildlife managers," I am sometimes met with silence, sometimes with incredulity.

All cultures have, at their core, fundamental and defining values that are not easily grasped, conceptualized, or appreciated by people outside the culture. In First Nations and other Aboriginal cultures, elders are usually the keepers of the core. In my culture, it is the courts, churches, governments, banks, big businesses, markets, educational institutions, etc., and the people who run them. Under normal circumstances, change is slow at the cores of cultures. However, in situations of cross-cultural interaction where an imbalance in power exists, change can be rapid indeed. In these situations, both Aboriginal and non-Aboriginal politicians/leaders occupy the front lines or margins of overlap. Here, they must constantly face outwards while always looking back so as to protect and advance the interests of their culture and its core. It is in this area of overlap that I am have developed expertise; I have a nose for social injustice and oppression in situations of cross-cultural interaction (Figure 1). I would like to thank Jim Webb, who through his work with the Little Red River Cree, Tallcree and other First Nations, articulated this model and pointed out to me where our expertise lies. (Jim, of course, has other areas of expertise, which I will not go into here).

If there was only one area where First Nations and Aboriginal people had resources to focus capacity building efforts, they might consider this one. In order to effectively advance their interests, Aboriginal people, as much as the non-Aboriginal people with whom they must interact, need to develop capacity to question and be critical of the assumptions and motivations that drive the dominant culture's agenda. Who said

that the dominant culture has all the solutions? It did (or generally does), of course, but that's beside the point. Nowhere is this capacity needed more than in issues regarding lands and resources that are critical to Aboriginal cultures and identities. It seems to me that the environmental management system of the state and the educational institutions that churn out graduates espousing this philosophy are relatively recent constructions, and unproven compared to those traditional management philosophies and systems that have sustained Aboriginal peoples through the millennia. And this brings me to TK.

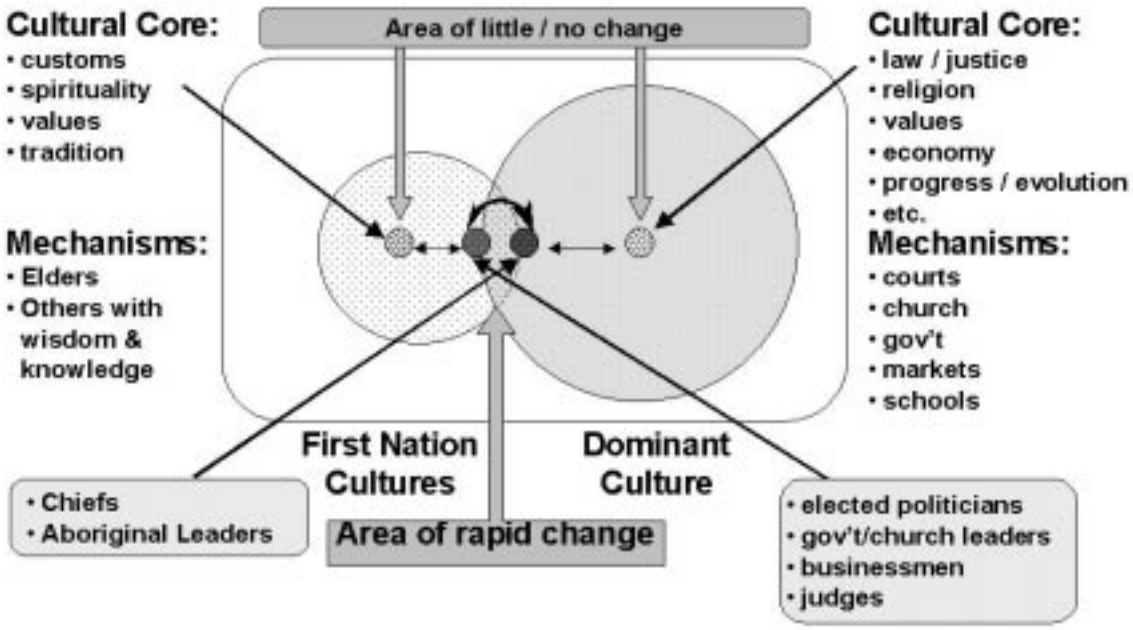

Figure 1. Culture cores and institutions in cross-culture interactions.

TRADITIONAL KNOWLEDGE DEFINED?

So what is TK? Many definitions of TK or its derivatives (traditional ecological knowledge, indigenous knowledge, naturalized knowledge, etc.) have been advanced, most of them unsatisfactory. A host of definitions contain some reference to the facts that TK is handed down through the generations, can be acquired through first hand experience, has a spiritual component, is dynamic and evolving, etc. While there is a near universal agreement that Aboriginal elders and people closest to the land have more TK

than other Aboriginal people, such definitions fail to consider that TK exists within a larger cultural context and system of understanding from which it cannot and should not be separated.

Most Aboriginal people possess a base of knowledge that can be viewed as being composed of the synthesis of TK and non-traditional knowledge. However, the dominant culture has a long history of exploiting only that knowledge that serves its own interests – most often some aspect of traditional environmental knowledge that addresses some specific information gap which western scientific knowledge needs to fill. Yet, even this type of knowledge exists within a broader and richer base of traditional ecological knowledge (TEK) that includes knowledge of ecosystem relationships and a code of ethics governing the maintenance of these relations. To date, however, the dominant culture appears not to be too interested in these, although it is becoming more accepting of holistic perspectives, if only because of the failure of conventional western science to solve ecological problems of increasing magnitude and complexity (Wolfe et al. 1992). At the same time, TEK articulates with social, cultural, spiritual, and other aspects of TK, which, in turn, are synthesized with non-traditional knowledge to form a dynamic and evolving base of understanding that Aboriginal people rely on to give meaning, value, and guidance to their everyday activities (Figure 2).

Many Aboriginal groups and individuals consequently feel that efforts by environmental managers to access their TK represents just another form of exploitation. Having taken over Aboriginal lands, mined Aboriginal resources, and marginalized Aboriginal peoples and institutions, government and even industry have turned their attention to TK. As such, TK has become a "Holy Grail" for those institutions and individuals that have Aboriginal and environmental mandates. However, TK cannot be easily separated from the broader socio-context that gives it meaning and value, without trivializing or misrepresenting this knowledge. Nor can it be divorced from the people who own and want to effectively control and apply this knowledge to advance their interests. Yet, this is precisely what happens when environmental managers and conservation bureaucrats come looking for TK.

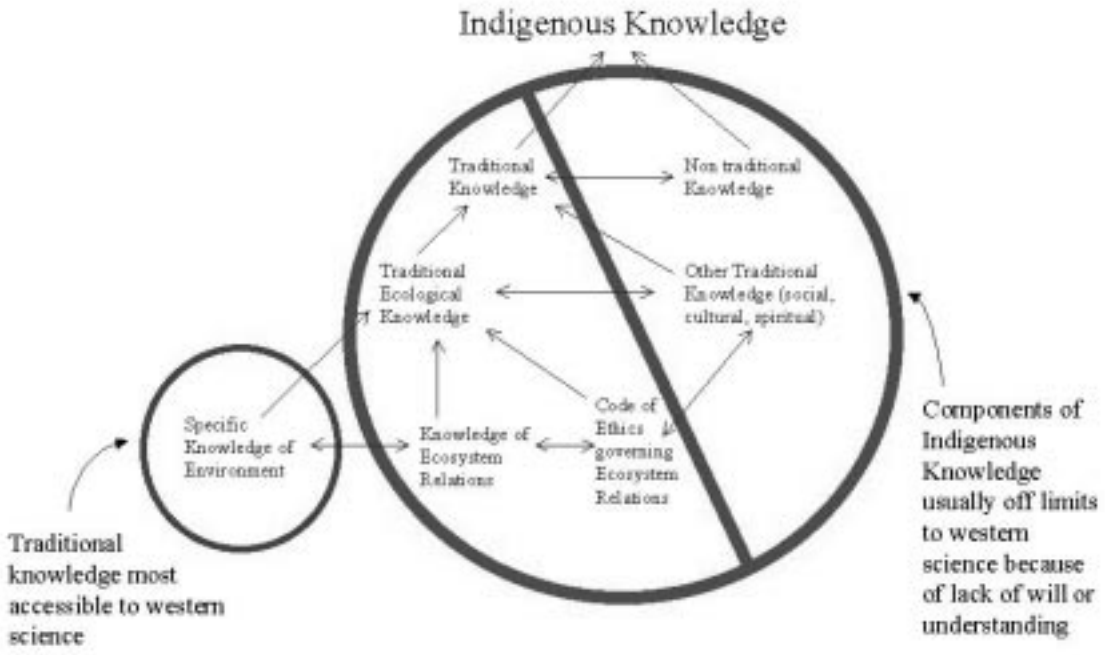

Figure 2. Structural components of indigenous knowledge.

(Author's note: Although this figure may be antithetical to the perspective advanced in this paper – no culture's knowledge base should be dissected in such a manner – it does demonstrate a point and thus has some heuristic value.

THE OBJECTIFICATION AND COMMODIFICATION OF TRADITIONAL KNOWLEDGE

TK has been and continues to be expropriated, objectified, and commodified by environmental managers and other practitioners of the western scientific tradition. The most common practice is to take specific elements of TK that are of interest to the conservation bureaucracy out of context and then insert them into the dominant framework of western scientific knowledge. This procedure almost always entails sanitizing and rendering TK into a form that is palatable, recognizable, and usable to the dominant culture.

The commodification of TK begins with its recording (usually electronic) and then rendering into text. However, TK exists primarily, and most effectively, within an oral tradition. Oral traditions are systems of communication that are passed orally among

and within generations of people with a common cultural heritage, whereby the social, cultural, economic, and other benefits of the communication are as important as the information being shared and communicated. Alternatively, western scientific knowledge views knowledge as primarily valid only in literate forms, whereby information takes precedence over the social and cultural contexts of the communication (Roburn nd). The effort to textualize TK typically involves translating those elements of TK deemed usable, i.e., rational, by the dominant ideology into a language and framework that it then can appropriate and use for its own purposes. Text, and other literate transformations, such as GIS (Geographical Information Systems), rather than the holders of TK then become the authoritative source or reference (Roburn nd.). In the process, holders of TK are systemically excluded from decision-making, and lose ownership and control over the use and application of their knowledge.

This is not to say that the textualization of TK cannot serve Aboriginal interests. There is a sense of urgency to record TK before the elders who possess this knowledge pass on. Moreover, the co-optation of the environmental resource management systems of the state by Aboriginal groups might serve their interests in terms of securing limited access to lands, resources, and management responsibilities under existing constitutional arrangements. First Nations and other Aboriginal groups have, until recently, had to play by rules established by the dominant culture – though recent Supreme Court decisions in the *Sparrow*, *Delgamuukw*, and other cases suggests that Aboriginal groups can now set some of the rules themselves. The textualization of TK, the co-optation of state management approaches, and related forms of acquiescence by First Nations and other Aboriginal groups in the context of securing land and resource tenures should be regarded only as interim measures within a larger strategy of social, cultural, economic, and political empowerment and self-determination. If the goal is to preserve TK for the benefit of present and future generations, the strategy should be to rebuild and strengthen those systems that give meaning and value to it.

WHAT DOES TRADITIONAL KNOWLEDGE REALLY INFORM AND WHAT ARE WE MANAGING?

In resource management, land management, harvest assessment, environmental impact assessment, and related practices, the value of TK has escalated in recent years, often reaching the status of a "sacred cow." Both Aboriginal and non-Aboriginal advocates of TK, however, have jumped on the TK bandwagon without consideration of where it is going, thus exposing knowledge held sacred by many Aboriginal people to misappropriation and de-contextualization. So what does TK inform and whose interests are being served by allowing this bandwagon to proceed on its merry way?

More than anything else, TK informs a philosophy, a way of life, and system of management that is fundamentally different from the environmental resource management system imposed on First Nations and other Aboriginal people by state institutions. The concept of environmental resource management is derived from western agricultural traditions and Judeo-Christian beliefs that "man" stands above and apart from nature. Under such a paradigm, the roles of humans are clear: "Man" either plays a controlling, consumptive role as in the case of domestic livestock production or a controlling, non-consumptive, custodial role as in the case of “wildlife management”, which Riewe and Gamble (1988:31) note to be a misnomer:

> …Wildlife management should be referred to as *people managemen*t (emphasis theirs) because most wildlife populations are actually manipulated by managing the harvesters, by setting seasons, quotas, bag limits, etc., and not by manipulating the wildlife species.

In the theory and praxis of environmental resource management, an individual species, "stock", forest, ecosystem, land-base, or some other arbitrarily defined management unit can be managed, if only we have enough information. Knowledge that establishes various parameters about a management unit such as population size, carrying capacity, reproduction rate, removal rate, maximum sustainable yield, total allowable harvest, etc., then becomes critical for setting rules and regulations about its use and conservation. However, it is precisely these types of information requirements that TK has trouble illuminating, thus limiting its contributions to environmental resource management.

TK rarely exists in a form that is easily quantified. Traditionally, Aboriginal and First Nations peoples rarely committed hard numbers to memory (Usher and Wenzel 1987). Rather, very precise observations about the conditions, health, locations, behaviours, changes, etc. of living resources were far more important for group and personal survival. As the only things that seem to count in environmental resource management are those that can be counted, TK often winds up playing "hand-maiden" to scientific knowledge and being trivialized by its practitioners.

Aboriginal and First Nations systems of management differ most fundamentally from environmental resource management systems in terms of what is being managed. In all my years working with Inuit and Aboriginal elders and others TK experts, I have never heard anyone talk about “managing” animals, resources, or lands. How can one party hold dominion over another when their relationship is based on respect, equity, and reciprocity? I have been told by Inuit hunters that "they would be ashamed to think they could manage animals; only God can do that" (DFO 1995). They did tell me, however, that they are quite comfortable with the concept of *managing their relationships* with animals and other living resources. I have heard the same thing from Nu-Chah-Nulth hereditary whaling chiefs and accomplished Cree Blood educators from Harvard University. This tells me that Aboriginal management was traditionally and still is concerned with managing relationships between humans and the natural world, not lands or resources *per se*. It is these traditional management systems that the TK of Aboriginal and First Nations people principally inform, not the environmental management system of the state.

The distinction is not trivial. Some conservation bureaucrats and environmental managers acknowledge that they don't really manage lands, wildlife, and other living resources; they are attempting to manage human activities as well as impacts on lands and resources. However, they generally do so by establishing some arbitrarily defined management unit and then gathering information (quantitative or otherwise) about it. In this procedure, humans are viewed as exogenous to or outside the unit being managed. But in the Aboriginal view, humans are an integral part of the ecosystem in which they exist, and have a fundamental role in managing and maintaining their relationships within it. And, this is what TK is all about.

By focusing on TK to the exclusion of the system of management that it informs serves neither the interests of Aboriginal peoples nor the dominant culture. One reason why Aboriginal systems of management appear to be so frequently undervalued and overlooked, even by Aboriginal people, when negotiating land and resource tenure arrangements with the state, is that they are informal and unstructured, at least compared to the state's environmental management system. In marked contrast to the set rules, concepts, and procedures that guide state management, Aboriginal management systems promote sustainable use by decentralized decision-making and expanded user participation (Caulfield 1997). Typically, traditional Aboriginal management systems include numerous unwritten social norms, laws, understandings, and conventions which govern the use of living resources. In turn, these serve to maintain and perpetuate desirable and sustainable relationships between humans and the natural world.

In comparison with the environmental management system practised by the state and taught in institutions of higher learning, Aboriginal management systems must seem both archaic and arcane to environmental managers. But there is nothing especially mysterious or backward about such management philosophies and systems. On the contrary, they are elegant in their conceptualization and humility before nature as they focus on managing, not lands or resources, but their relationship with them. I would even venture to say that our collective survival on this planet may be dependent upon on learning and applying the philosophies, expertise, and knowledge that Aboriginal and other Indigenous peoples have developed about the sustainable use of the natural world.

CO-MANAGEMENT OR ECO-COLONIALISM?

Yet, traditional management systems, and the TK that informs them, continue to be suppressed by the state. Many First Nations and Aboriginal groups have entered into cooperative land tenure and resource sharing agreements with the state whereby power, authority, and management responsibilities are divided equally, theoretically at least, between the parties. Invariably, however, the agreed upon principles, rules, norms, and decision-making procedures used to establish and implement cooperative management agreements are those of the dominant culture, not the Aboriginal party. The reasons for this are complex and varied.

In cases where resource use conflicts arise, the crisis is almost always perceived by the state. Having determined there is a crisis, the state, with the assistance of user groups, then sets about to resolve it employing its own methods, concepts, and tools. Rarely, if ever, do resource users identify the crisis. The process is somewhat different under the establishment of claims/treaty entitlement based cooperative management structures, as Aboriginal representatives often realize immediate gains by co-opting or buying into the state's environmental management system.

Both scenarios underscore the fact that Aboriginal groups and the nation states with whom they must negotiate are not equal. After decades of oppression and forced assimilation, First Nations and other Aboriginal groups are attempting to recuperate and rebuild many aspects of their cultures and societies. However, in the process of negotiating cooperative management agreements, they simply do not have the resources (financial, human and otherwise) or constitutional support — although *Delgamuukw* and other recent Supreme Court decisions are beginning to level the playing field — to negotiate cooperative management agreements on an equal footing. It is the state the normally supplies the resources needed to negotiate and implement such agreements, and it controls the "purse strings", the agenda and negotiation process from beginning to end.

In virtually all cooperative management scenarios, agreements are negotiated in the ideology and language of the dominant culture. In the process, First Nations and Aboriginal people are coerced into accepting the state's model of environmental management, replete with its culturally inappropriate and arguably questionable concepts, terms, procedures, and ways of knowing and doing. Acceptance and use of words and concepts such as "management", "wildlife", "harvest", "conservation", "stock", "quota", "total allowable harvest", etc. leave little or no room for Aboriginal people to bring their own systems of management, and the concepts, procedures, and knowledge that inform them, to the table. This is not an abstract issue for Aboriginal people; it is fundamental to who they are and who they want to be. No wonder some Aboriginal leaders are beginning to call attention to it:

> The concept of wildlife management is taken from a farming culture... We do not use the concept of wildlife. My reason for questioning these concepts is that the policy makers, the biologists, and administrators

> outside our world are foreign to hunting and hunting cultures... So ban the concepts of "managing stocks", the concepts like "harvesting", the concepts of "wildlife" (and) through the process of changing your vocabulary, you may be understood better by the people you serve... or (who) hired you to create a sustainable culture for themselves and the generations to come (Egede 1995).
>
> With various culturally inappropriate or irrelevant concepts such as "wildlife management", terminology such as "stock" (and) "harvest", and "procedures" such as "total allowable catches" (and) "quotas", the state management system is a form of intrusion that threatens to crush the "tried and true", the dynamic, evolving and effective systems of local management and the knowledge that informs (them) (Kuptana 1996).

Even non-Aboriginal researchers are beginning to realize the inappropriateness of the dominant culture's environmental management concepts and procedures when applied to Aboriginal peoples and their issues:

> The concept of "resource management", given the relationship of many Native people to the natural environment, is as foreign to them as the courts in which they argued their rights to lands and "resources." The words "resource" and "management" imply a human superiority incompatible with the holistic values expressed by many traditional Native people (Shapcott 1989:72).
>
> The term "resource management" is firmly rooted in the traditions of western industrialized society and thus carries much ideological baggage. …It needs to be acknowledged that many Aboriginal people, particularly elders, are uncomfortable with the term "resource management", not only because there is no equivalent term in aboriginal languages, but also because it implies a sense of superiority over nature and a sense of separateness from it (Notzke 1994:1–2).

Regrettably, however, if the terms and concepts of Aboriginal peoples are considered at all in negotiating and implementing cooperative management agreements, it is usually to translate those of the conservation bureaucracy into a framework comprehensible to unilingual Aboriginal speakers. Rarely, are the management concepts, philosophies, terms, etc. of Aboriginal people translated into the language of the dominant culture, or used as a basis to establish management objectives and research priorities in the negotiation process.

Attempts by governments to resolve access to lands and resource issues through land claims and treaty entitlement negotiations would seem to provide Aboriginal people with some opportunity and leverage to bring aspects of their own management systems, and of course the TK that informs them, to the bargaining table. However, not only does this rarely happen, Aboriginal representatives often co-opt state management principles and practices to realize short-term gains. However, cooperative management agreements developed under such processes tend to subvert and oppress traditional Aboriginal forms of management. As this were not cause enough for alarm, the whole process of is given legitimacy on the eyes of the Aboriginal community by having Aboriginal people sit on these boards. There may be few more insidious ways to undermine and marginalize traditional Aboriginal management systems, and the TK that informs them, than co-management as it is practised today.

INTEGRATING ABORIGINAL AND ENVIRONMENTAL SYSTEMS OF MANAGEMENT, AND THE KNOWLEDGE THAT INFORMS THEM: CAN WE, SHOULD WE?

From the foregoing discussion, it is fair to ask whether true co-management is possible, and whether we can or should integrate TK and western scientific knowledge in our efforts to manage for sustainable use? These questions, of course, are related. Sharing management responsibilities with the state can have considerable costs for Aboriginal peoples. For example, interactions between Aboriginal "resource" users and distant political forces can lead to social disruption in Aboriginal communities, giving rise to bureaucratic structures and elites – incipient forms of social organizational and cultural change that brings a large price to small societies already pressured by change (Caulfield 1997). Co-management can also have unintended environmental costs, if the decisions taken alter traditional "resource" use practices in such a way as to upset long-standing ecological relationships and value systems. The costs are even greater when Aboriginal management systems are not considered on an equal footing with the dominant culture's environmental management system. It is little wonder that co-management has been described by some Aboriginal people as a process whereby "we cooperate, they (the state) manage" (ICC 1993).

So is true co-management possible, and if so, should it be pursued as a strategy by Aboriginal people to further their rights and interests in their lands and "resources"? True cooperative management is possible only if both parties can bring their respective systems of management to the table and have them count and influence management decisions. Such arrangements, while rare, have been developed in Nunavut, and seem to work best when both parties "agree to disagree", which paves the way for conflict resolution, consensus building, and cooperative research initiatives (DFO 1995). However, this places considerable onus on First Nations and other Aboriginal groups to articulate, strengthen, and increase the state's awareness in their own "tried and true" systems of management, and of course, the philosophies, concepts, knowledge, and practices that informs them. Failing that, co-management, as it is practised today, should be viewed as an interim strategy that First Nations and Aboriginal organizations might pursue to achieve limited, short-term political and economic gains. Ultimately, however, in order to avoid the imposition of one culture's management system on the other, perhaps we ought to consider separate or complementary jurisdiction in which each party has well-defined, rather than shared, responsibility?

It seems obvious that the common procedure of incorporating TK into environmental management is one that serves neither the interests of Aboriginal peoples nor the dominant culture. The full contributions of Aboriginal people and their knowledge to managing for sustainable use will not be realized if TK continues to be treated as just some other category of information to be inserted into, or merged with, western scientific knowledge to further the agenda of environmental managers. Rather, they will be realized when we begin to shift focus towards applying those management philosophies and systems that give TK its full meaning, merit, and efficacy.

TK, especially the right to own, control, use, and apply both it and the traditional systems of management that it informs, is a *constitutionally protected right* (Sakej Henderson Youngblood, personal communication, 1998). By focusing on TK to the exclusion of those enduring systems of management that establishes its context and gives it its true value, the "TK in environmental management bandwagon has missed the boat." I pray, and I think, it is not too late to make things better, however. More than anything

we can do right now, we have to begin to view TK not as an object or commodity, but as a process to be developed and a right to be exercised in each context.

I would like to thank Harry Bombay once again for inviting me to this conference, which has been about "celebrating partnerships." Partnerships, however, can not be celebrated fully until the sharing of power and responsibility meets the goals and aspirations of each partner. So let's celebrate our collaborative efforts towards developing effective strategies and institutions that maximize the potential contributions of our collective knowledge and expertise to the development of sustainable forestry management practices. And then, maybe someday soon, we will be able to truly toast the partnerships we have created. Migwich. Mercicho. Thank you.

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