Governance Matters

6. Interpretations from the institutional analysis and development (IAD) framework. Elements of the "commons" in governance. Social construction of "place".

The work of Elinor Ostrom and colleagues over the years was to demonstrate that local communities can and do self-organize to manage resources over which they have control in sustainable ways and sometimes can do so over long periods of time. The main feature of these "common property" governance arrangements was that the resources were owned and controlled by the entire community and served as "common-pool resources" for them. To achieve this, they had to overcome the "exclusion problem" of keeping outsiders away, and the "subtractability problem" whereby the exploitation of resources by accepted users reduces resource availability for the others. In theory, the key to success is their ability to limit the access of outsiders and to self-regulate their own use of the resources. State regulation or privatization by one entity is not the only alternative as had long been argued (and still is) in some disciplinary writings. However, many examples of "common property" arrangements from around the world had been destroyed when taken over by the State or privatized by outside business organizations usually in the name of "development".

The main focus of the Institutional Analysis and Development (IAD) studies has been to understand more clearly the conditions under which communities were able to achieve control over their common pool resources. Particular attention was given to the specific attributes of both the resource systems and of the users of the resources that made it feasible to establish 'robust' common property institutions. A set of eight principles that characterize such 'robust' institutions has been developed from the many case studies done over the years (including a number relating to forest management). The principles are not viewed as a checklist that can be applied abstractly, but as a guide for research on the relative success or failure of community-based institutions under their particular social-ecological and political-economic circumstances. However, the question has been raised about whether many examples of community-based resource management

are deemed to be successful because they survived for long periods rather than because they achieved desirable forms of sustainability that can be documented.

"Complexity thinking" has encouraged some re-casting of earlier work on common property governance (e.g. Carlsson and Berkes 2005; Armitage and others 2008; Berkes 2007; 2009). Complexity perspectives do not always view "communities" to be cohesive social groups but rather as multi-dimensional, cross-scale social-political units; they acknowledge the inherent uncertainties and unknowns about the functioning of social-ecological systems; they point out scale mismatches between resource and institutional boundaries (the problem of "fit"); they note the inherent complexities of different institutional forms of governance; and they recognize that resource management systems themselves go through phase cycles of crisis and recovery (e.g. Walker and Salt 2006). Thus, "commons thinking" and community-based resource management might really mean only that governance should start from the ground level and do what it can there (a subsidiarity principle) but then deal also with multiple cross-scale (horizontal and vertical) relations. A much wider range of contextual factors and contingency relationships are then to be expected. The functioning of such systems depends on all manner of network relationships that give rise to power-sharing and other features of governance structures. In recent years, particular attention has been paid to considering how cross-scale links in social-ecological systems and global economies can be created as nested sets of largely self-organized institutions that will collectively operate as a functional polycentric governance structure.

Model Forests and Aboriginal Forestry

As Aboriginal rights and titles are becoming officially recognized to varying degrees in Canada through a series of Court decisions, their different cultural beliefs, and the traditional knowledge that underpins them, have also to be somehow taken into account in forestry matters. This requires some form of reconciling Aboriginal "common property" governance traditions with the governmental and corporate property systems that dominate forest management in Canada. Curran and M'Gonigle (1999) document the historical background to this situation.

In keeping with federal policy, exemplified in the creation of the First Nations Forestry Program in 1996, a strategic initiative in the MF program was to encourage more Aboriginal involvement in the forestry sector. All MF/FCP have First Nation communities within their region, ranging from just one each in Weberville and Lac Saint-Jean to 25 in the Resources North Association, and 21 in the Nova Forest Alliance. It is generally recognized that common property situations in Canada are seldom (if ever) examples of some 'pure' idealized type but instead they are hybrids with varying elements of private and State (Crown lands) ownerships in the mix.

Wyatt (2007) surveyed the situation across Canada and noted a spectrum composed of different types of partnerships and functional roles. "Forestry by First Nations" takes a number of forms ranging from direct employment in forest industries, or for contracts issued by forest industries through to holding tenures under existing law. While consultations occur in these arrangements no fundamental changes occur in the legal structures for forest management. "Forestry for First Nations" has some flexibility to take other forest values into account, drawing upon traditional Aboriginal knowledge for forest management planning, and sometimes developing joint ventures and partnerships as a form of co-management. But this still leaves little power with First Nations. The National Aboriginal Forestry Association (http://nafaforestry.org) also notes that partnerships in the form of joint ventures, cooperative business arrangements and forest service contracting reflect a more business-minded approach among First Nations (especially in western Canada) whereas inclusion of traditional ecological knowledge in forest planning, and socio-economic partnerships (sometimes required by forest tenures, timber harvest licenses, or forest certification schemes) enhances the capacity of First Nations in the forest sector, especially in eastern Canada.

"'Aboriginal forestry' should be forestry in which First Nations peoples have re-established their own institutions for managing the use of forest lands" (Wyatt, *op.cit*:178). From this perspective, events associated with the Nuu-chah-Nulth First Nations in Clayoquot Sound will likely prove instructive. The current situation has arisen from the major re-structuring of the forest industry along with the (near) completion of Treaty negotiations that are leading to a restoration of the key executive roles served by Hereditary Chiefs in First Nations self-governance. "Aboriginal forestry" in Clayoquot includes the First Nations' owned "Iisaak" corporation, now the sole proprietor of the

largest remaining forest tenure in the region. Forest management planning and development is being done according to the land and water use constraint specifications developed under the former Central Region (co-managed) Board. These apply to the traditional lands of the Tla-o-qui-aht First Nations who have now declared all of their lands to be "tribal parks"; the 55,000 ha Haa'uukmin Tribal Park declared in 2008 joins with the much smaller Meares Island Tribal Park set aside from logging by court order in 1984. Forest production in the Tribal Parks will be based on a very selective cutting of trees with special attention given to all aspects of value-added wood products from individual logs and to exploring prospects for NTFP more extensively.

As explained by spokespersons for the Tla-o-qui-aht, Tribal Parks are watersheds in traditional territories that are managed to integrate human and ecosystem wellbeing as taught by First Nations' ancestors and adapted to today's situation. The power to declare Tribal Parks comes from the Ha'wiih (Hereditary Chiefs) who are also incorporated into the management structures for them (www.tribalparks.ca). A "joint sustainability planning process" for Haa'uukwin is underway with the Pacific Rim National Park Reserve whose Long Beach segment is included in this area and with the District of Tofino, also in the area. A Tribal Parks Society has been incorporated, a Guardian Program has been initiated, and a major Canada-Africa Research Alliance to investigate the linking of protected areas to poverty reduction has included Haa'uukwin and Pacific Rim National Park with the Serengeti National Park in Tanzania and three smaller protected areas in Ghana. Haa'uukwin might also be thought of as a community forest. More extensive background information on these developments is provided from different perspectives by Goetze (2005) and Lertzman (2010).

Towards Recognition of Paradigm Change

A major challenge facing the forestry sector in Canada was summarized some years ago by Kimmins (1995:37): "Although forestry has an absolute obligation to change as public attitudes change, there is a parallel responsibility to resist changes that, according to the knowledge and experience of foresters, are inconsistent with the long-term vision that the public has for its forests". Nevertheless, in his view as a forest ecologist (more widely supported outside of the industrial forestry sector than within it) the still very

dominant “administrative forestry” paradigm that guides the “forest exploitation paradigm” need both to be replaced. The replacement has two inter-related components. One would replace timber management with “ecosystem management” and the other would situate ecosystem management in the larger context of “social forestry”. The combination is “a balance between ecological, cultural, social, economic and management considerations” to become the ultimate “forest environmentalism” (p. 39). This implicitly acknowledges an interrelated set of values that only some yet to evolve multi-scale “common property” regime could address.

In a later elaboration, Kimmins (2002) declared that the paradigm for a new forestry has to include ecosystem management, adaptive management, spatial zoning in forests to satisfy different human uses and values, variable retention forestry (related to zoning), emulation of natural disturbances and the natural range of variations (patch dynamics of forest mosaics) and a results-based *vs* regulation-based forestry. Tenure systems must change. And, to be clear: ”Few people are equipped to take on and execute these responsibilities as well as a well-educated, trained and motivated professional forester operating within a professional code of ethics. Such foresters are therefore society’s best hope for the implementation of sustainable forestry” (*op. cit*: 270).

The following declarations from the Canadian Council of Forest Ministers in 2008 were based on extensive consultations with various organizations in Canada expressing interest in forests for different reasons. Allowing for the possibility that such statements can always be dismissed as little more than public relations rhetoric from senior ranks in the forest sector, they do nevertheless suggest that there may be a growing conceptual understanding that forests should be seen as complex social-ecological systems that provide a range of different values of a commons, not all of which are marketable. Thus:

“Sustainable forest management:

> Management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things while providing environmental, economic, social, and cultural opportunities for present and future generations”. Canadian Council of Forest Ministers, 2008.

“A Vision for Canada’s Forests: 2008 and Beyond, issued by the Canadian Council of Forest Ministers, clearly reaffirms the Council’s ongoing support for SFM and for Canada’s global leadership in this area. The two goals presented in the vision align well with the principles and practice of SFM:

- Ensure a prosperous and sustainable future for Canada's entire forest sector.
- Become a world leader in innovative policies and actions to mitigate and adapt to the effects of climate change on our forests and forest communities". (www.ccfm.org)

Besides the model forests, local "community forests" have drawn increasing interest across Canada, and some seem to reflect the new "paradigm" coming into place. In general, community forests do have to conform to the provincial forest tenure regimes created for industrial forestry, but at smaller scales of operation. This means their business component can be much smaller, but so then are their main sources of revenues. With more community interest groups involved, they strive to recognize other forest values, but may have more potential disputes to deal with, while often not having access to the range of technical and managerial skills necessary to succeed. For community forestry based on large numbers of owners of small woodlots, the mix of values and expectation can differ widely. Many owners seek only protection of amenity values, or depending on the local situation, the woodlands are for seasonal supplements of forest goods (e.g. firewood, wildlife) for subsistence in the local informal economy.

Duinker and others (1994); Beckley (1998); and Teitelbaum and others (2006) and Tyler and others (2007) have provided overviews of community forests in Canada at different time periods. There are continuing debates about terminology such as the definitions of "community" and "forests" or "forestry", and interpretations of what is necessary and sufficient in provincial tenure legislation to enable community forests to prosper. The suggested working definitions of community forests have remained essentially the same over the years, i.e. "…a community forest involves deliberate development of a relationship between a community and its immediate forests such that all community members have a means of direct involvement in the management of forests, with a goal of benefiting the whole community" (Duinker: 713) or more simply still "…a public forest area for the benefit of the community" (Teitlebaum: 417). Most initiatives for establishing community forests have come from British Columbia and Quebec; Ontario is included if the 50 former "Agreement Forests" now owned and managed by either Regional Municipalities and Counties, or by watershed Conservation Authorities in southern and south-central Ontario are included. There are case studies of shortcomings or failures, (e.g. Bradshaw 2003; Bullock and Hanna 2008; Bullock and others 2009), and sometimes of successes (e.g. Martineau 2007; Whitefeather Forest 2006).

The overall impression from this is that community forests exist within several Canadian Model Forests and Biosphere Reserves in some form; the IAD criteria for identifying "robust" CPR could usefully to applied as a guide to their likely long-term success; and the scaling up necessary to reflect multiple cross-scale influences leads to institutional blockages, especially in the structures of provincial forest tenure systems. Much of the advocacy writings that promote community forestry have flagged tenure systems as a crucial defect in the governance regime for forestry in Canada.

Are Model Forests Community Forests?

This comes down to a matter of definitions. But some participant observers, such as the former Dean of Forestry at the University of Toronto, expressed the hope that as the CMFN got underway this would be a major outcome (Carrow 1999). For the 15 years of the original program, the corporate industrial timber interests operated independently from whatever else was being done while also occupying executive roles in the organization of each model forest. This did not impede some initiatives that were consistent with the community forest model if they complemented the industrial model.

One example was the *Eastern Ontario MF* that undertook the responsibility for obtaining forest stewardship certifications on behalf of different groups of private woodlot owners that were located within the extensive wood supply region (that included eastern Ontario, western Quebec, and northern New York State) for the Domtar pulp mill in Cornwall ON. When the mill was suddenly closed in 2006, the certifications were still useful in finding buyers from small sawmills in the region.

The *Bas-Saint-Laurent MF* covered an area of about 122,600 ha of which 92,000 ha are forests. The MF was established to test the feasibility of adapting a neo-feudal concept of forest tenant farms (le métayage forestier) on 47,600 ha of private lands in two seigneuries owned by Abitibi-Consolidated Inc. (now Resolute Forest Products/Produit Forestier Résolu) near Rimouski. These areas were divided into two groups totaling about 25 tenant farms, each averaging about 1,000 ha. On behalf of the landowners, the Model Forest took on the role of negotiating stumpage and tenant contracts, developing and monitoring forest management plans, proposing and supervising forest

management activities and otherwise interacting with external organizations. The tenants themselves created or dealt with local cooperatives for services such as logging and transporting logs to specified sawmills. They also engaged in silvicultural work to help restore forests (that had been severely cut-over three times), developed some local NTFP options (e.g. maple sugar), undertook landscape scale fish and wildlife habitat restoration measures, and created small-scale local tourism businesses. The whole initiative was judged to have been socio-economically successful, as indicated in part by the number of applications received from local people for any tenancy that became vacant (Masse 2001). The system for administration and record keeping established by the MF was deemed to be sound (Natural Resources Canada 2002) and was subsequently able to be carried on by local organizations. At the end of Phase 3, the MF itself was disbanded. However, this experience has apparently attracted continuing interest from elsewhere. One example was a feasibility study of applying the forest tenant model to the Algoma District in Ontario (Wildlands League 2002); while it was technically possible to apply it in Algoma there was apparently insufficient interest in government and the private sector to proceed with it.

The FCP may well be a better fit with the community forest concept. In Clayoquot Sound, *Eco-Trust Canada* has coordinated a collaborative initiative with the Ahousaht First Nation (population on reserve in 2006: 660 with a median age of 22) to develop their capacity to repair, renovate and build their own housing and eventually make value-added products such as flooring, moldings, and furniture. To do this, the project acquired an electric SELECT sawmill in 2009 and provided training in its use. Much of the lumber will come initially from the many large logs, waste from the industrial era, that have washed up on beaches in the community.

The newest FCP is in a 333 km^2 region, 60% of it forested, some 20 km northwest of the Town of Peace River in northern Alberta. It originated in a woodlot extension program in 2006-2007 that was expanded in 2008 to become the *Weberville Community Forest* to create a landscape scale woodlot management plan for private landowners. About half of the owners have expressed interest in this and work is underway to inventory private woodlots, create regional maps and databases, and link up with local partner organizations such as the “novaNAIT Boreal Research Institute”.

An Ultimate Commons

The clearest expression of a "commons" perspective associated with forested landscapes is revealed by the growing concerns about climate change, especially in the boreal forests zones. In the PAMF, available evidence from a number of sources in the transition ecotone between the prairie aspen parklands and the boreal forests suggests that climate change effects are already beginning to appear (Johnston 2008). In the short-term, fire hazards can become more acute especially during long dry seasons and for areas having large volumes of dead or dying trees due to outbreaks of insect pests or other pathogens. Model forests have helped with the adoption locally of "FireSmart Programs". These were created in the early 1990s to foster proactive approaches to wildland fire management and protection; they deal with mitigation of wildland fire risks, measures to reduce wildfire severity, and help prepare homeowners and communities for fire occurrences.

Otherwise, boreal forests (among others) have been adapting to climate change in Canada since the beginning of the Holocene Era some 10,000 years ago. This has included the more geologically recent Medieval Warm Period (c AD 600-1300), then the Little Ice Age (variously given as c AD 1200 to 1700 or 1500 to 1800) and what appears to be another warming period since the late 19th century (e.g. Ruckstuhl and others 2008). Foresters feel called upon to manage forest ecosystems (or timber stands) so that the most desirable tree species assemblages will continue to grow continuously at least up to some 120-160++ years from now (i.e. ~ 2 full rotation periods depending upon particular sites and locations). This includes most model forests. The same problems face managers of "protected areas" in terms of dated notions of the "representativeness" of ecosystems, biodiversity and state of ecological integrity.

It is recognized that both the boreal forests and forest-based communities are increasingly vulnerable to climate change, and both have limited capacity for adapting to this situation. The forests themselves will exhibit differential responses to climate stresses and in their ability to disperse into adjacent more favourable sites, so that new forest ecosystem assemblages and mosaics from disturbances will gradually replace the former ones. Forest management strategies to try to guide this might include re-establishing higher species richness in forest stands to hedge bets on which

combinations will thrive; diversify age-class structures among stands to avoid uniform plantations that will become unviable; anticipate climate change by introducing species into new areas where they might thrive; and reduce other forest stresses as much as possible (Duinker and Ordonez 2010). This also implies changes in management practices and policies that regulate them, all of which now assume they are optimal for growing desirable forests for the current climate regime (Spittlehouse 2005).

People in forest-dependent communities may remain vulnerable for various reasons including a lack of sufficient capital assets and entrepreneurial skills to undertake pro-active measures to enhance their resilience, adaptive management capabilities and thus maintain desirable forms of sustainable livelihoods. Cumulative impacts from climate variability and change, socio-economic decline, and locked-in government and corporate policies and practices can readily become too much to handle for a "community-in-transition" to some unknown future (Davidson and others 2003; Albert 2007), Other dynamics of global change including technological and economic transformations of the forest industry can occur much more quickly than adaptation strategies paced by forest rotation periods.

Projects With Common Property Features

One example would appear to be the "Sturgeon River Plains Bison Stewards" in the Prince Albert National Park area of the PAMF. In 1969, the provincial government released 50 plains bison from Elk Island National Park (AB) into an area about 60 km north of the Prince Albert NP with the intent of providing additional food sources for the First Nations. The bison began to disperse widely in small groups, mainly to the south. One group of about 10-20 individuals became established along the west side of the park. This is the group that had since grown to a peak population of between 300-400 animals in 2006, but is currently down to about 250 following an outbreak of anthrax. They range over an area of about 800 km^2. By 1993, they became an issue because of increased damages reported by ranchers and farmers to their crops and fences.

From 1996 on, various field studies were undertaken by PANP and Saskatchewan Environment to get a better idea of the extent and area of the bison movements and preferred range conditions. In 2006, a stewardship group was formed from a concerned

group of ranchers and farmers working with the Park and provincial government to create an environment where this free ranging herd of plains bison within their historical range can co-exist with landowners in some mutually beneficial way. It is the only such herd in Canada. After much consultation with other bison biologists and local communities, a Sturgeon River Plains Bison Management Plan was initiated in 2010 with guidance from a 21 member advisory committee of local governments, 9 First Nations groups, and other organizations. The objectives of this Plan are to develop a cooperative management approach, promote long-term conservation for the herd, reduce conflicts in part by directing the herd's movements away from farmlands, and gather data necessary to assess progress and results. [www.bisonstewards.ca]

The IDA Framework and Biosphere Reserves

Common property governance occurs in biosphere reserves in various contemporary forms such as gated communities that prevent public access to coastal areas (e.g. Qualicum Beach, *Mount Arrowsmith BR*), private hunting and fishing clubs (e.g. The Long Point Company, founded in 1866, in the *Long Point BR)*, some forms of cottage owners associations especially around small lakes that can easily degrade from pollution and over-fishing (e.g, some inland lakes within the *Georgian Bay BR*), and private golf clubs (many examples). Biosphere Reserves that include extensive coastal waters also experience "open access" phenomena whereby anybody with a boat can go there. This can produce conflicts on heavy-use weekends between motorized and non-motorized boating, between boating and fishing, and annoyances from excess noise. These conflicting uses are moderated somewhat by being subject to regulations for boating safety and fish catch limits.

There are examples of informal measures to deal with these issues by organizations within the BRs. In the Georgian Bay BR, an Alliance of Boaters and Cottagers was formed in 1995, and in 2002 the "Georgian Bay Boaters and Cottagers Code" (of conduct) was agreed upon by the Ontario Boating Forum and the Georgian Bay Association (a lobby group on behalf of some 20 cottage owner associations representing about 4,200 families in eastern Georgian Bay). Self-regulation of sport fishing on Long Point Bay has been coordinated since 1996 by the Long Point Anglers'

Association that has successfully promoted “catch-release” fishing generally and particularly for fishing tournaments it sponsors. The Association provides a “Live Release Boast” with aerated holding tanks for fish to be kept for a while to recover from being captured and handled before being released back into the bay. This considerable reduction in fish mortality during tournaments is thought to help sustain a valuable sports fishery that has been increasingly viewed as an important “ecological service” in the Long Point BR.

From complexity perspectives, it is necessary to recognize common values associated with ecosystems at larger scales. This is being done by both the Georgian Bay and Long Point BRs though participation of the former in a State of the Bay environmental assessment, and in the “Lake Huron-Georgian Bay Watershed: Canadian Framework for Community Action”. People in the Long Point BR are involved in a number of activities that contribute to bi-national assessments of ecological conditions of Lake Erie.

As noted previously, Elinor Ostrom and others have emphasized the importance of creating governance arrangements that can promote the nesting of local common property systems into larger more complex ones. Sick (2002), on behalf of the IDRC, reviewed literature from a wide range of sources in different regions of the world on topics about institutions and managing resources across boundaries. Her over-all perspective was that of “socio-ecological systems as common pool resources”. Factors judged to be crucial for successful common property regimes at local levels had also to be thought through for larger scale institutions into which the local ones would be situated. While “there are no blueprint institutions for managing common pool resources” Sick concluded that strong consideration has to be given to larger scale institutions that themselves had developed over time from collaborative arrangements among participants rather than having been imposed arbitrarily by government authorities. On the question of secure property rights, there are a number of possibilities including private property rights nested within common property management situations.

In 2001, David Brunckhorst noted that:

> “Management of larger areas of land and sea in an integrated and collectively responsible manner lends itself to the application of Common Property Resource (CPR) institutions. The theory and indeed on-ground development of CPR regimes (particularly contemporary rural examples) could provide much needed models at local and broader scales. Such approaches coupled with options for

> multi-tenure planning and management through the biosphere reserve program, offer opportunities for diverse and innovative responses" (*op cit*: 20).

He further elaborated on how the biosphere reserve concept is compatible in terms of stated functions and objectives with the principles and characteristics for successful CPR regimes. As an example, the Bookmark (now Riverland) Biosphere Reserve in South Australia was described in terms of how the zonation configuration was interpreted on the landscape, and how nested CPR configurations had developed. The crucial importance of the five kinds of capital assets (natural, social, human, physical, and financial) as resources to be both drawn upon and restored where necessary enables BRs to become valuable on-ground implementation frameworks for achieving the goal of developing new institutional forms for delivering social and ecological sustainability. The guiding strategy is one of "assembling new commons from private parcels" (Brunckhorst 2000; 2001). The actual experience from developing the governance capacities for the Bookmark BR was presented in a detailed case study by Pfueller (2008).

Brunckhorst and his colleagues have also pursued the "commons" evolving from private parcels of land theme by following one illustrative case example closely, and by doing applied research for an "Eco-Civic" strategy to guide scale-ups from local to regional frameworks. The case example is "Tilbuster Commons", a 1,300 ha area of ranchlands in New South Wales owned by four "grazing families". The families combined their land, labour, livestock, and infrastructure (except homes) to form a Common Resource Cooperative through which they have since obtained mutual and enhanced benefits from operating their larger and more efficient enterprise while also being able to improve rangeland and water supplies (Brunckhorst and Coop 2004).

The key to "Eco-Civic" optimization to develop regional frameworks is to identify broader socio-economic contexts within an otherwise similar landscape region that would maximize the spatial capture of 'sense of place' for residents. This would be more likely to elicit their engagement in protecting or restoring commons values and thus help them develop collaborative governance arrangements that can best do this. A methodological approach was developed for this analysis, and it has been theoretically demonstrated for New South Wales. It is described in some detail by Brunckhorst and others (2008) and summarized in more general terms by Brunckhorst (2010a; 2010b).

The sense of place and belonging is also recognized to be a significant contextual element in Canadian biosphere reserves. The landscapes that form the basis for each of the 16 in Canada can be thought of as “iconic landscapes”, each in its own way. They exhibit topographic variety that people find attractive, and, given the appropriate seasonal weather, like to be in for a variety of outdoor pursuits. Seasonal visitors, often in large numbers, are also attracted, and some stay as regular summer residents. Topographic variety also creates habitat variety with landscape mosaics that can support unusual elements of biological diversity. This attracts people with conservation interests and often leads to the conservation function of BRs becoming the most attractive one for mobilizing local participation and support.

But the sense of place also includes historical and cultural features along with deep social relationships and family ties. The “champions” of BRs, the people having the social and/or institutional entrepreneurial skills who turn out to be the ones with the drive and persistence necessary to organize and document the proposed BR, often have this multi-facetted sense of place. They deeply care about it, commit themselves over periods commonly in the range of 6-8 years before a nomination can go forward to UNESCO/MAB for a designation, and end up influencing much that gets done as a BR begins functioning after its designation.

Most BRs immediately see a need to develop public information and/or a communications program to seek a wider understanding of who and what they are (or more importantly who and what they are not). This can be interpreted as an effort to promote the “social construction of place” that can build upon and expand whatever more local versions of place are held by many people living there. In other situations, the BR appears to already enjoy a strong sense of place (e.g. *Waterton* BR and the front range ranchlands of the Rockies; *Long Point* in Norfolk, one of the original counties of Upper Canada created in 1791; and *Charlevoix* BR, reflecting a long settled and harmonious landscape dating from early French colonies in Canada. As noted in WP #5, the re-scaling and re-framing process that happened in the Bras d’Or Lakes BR (through the CEPI process) resulted in a much more widely-shared sense of place that

encompassed the entire landscape/watershed. In each of these cases, there is an impressive social capital that is easily mobilized to challenge proposed changes that disturb essential values that characterize the local sense of place. Pollock (2004) noted from both the literature and personal experience the importance to BRs of fostering placed-based governance as a condition for their own success. It might also be a pre-requisite for enabling local participation to grow into an effective "civic science" role (Reed 2009) as well as develop the capacities to take a lead in linking networks necessary to informally steer governance towards sustainability (Pollock and others 2008).

The same general situation would appear to apply to the MF/FCP situations as well. Network building activities and supporting information/communication initiatives in both BRs and MFs are to help expand and strengthen the sense of place and belonging. Participation in dispute resolution processes can do the same and draw some people out from their local "not-in-my-backyard" orientation that otherwise is relatively common. This process is an aspect of "governance" that merits more research attention than it seems to have received.

Social Construction of Place

The "sense of place" is often articulated very effectively by environmental historians (e.g. Campbell, 2005, for Georgian Bay and implicitly for the GBBR), and by aesthetically sensitive ecologists (e.g. Pitt-Brooks, 2004, for Clayoquot Sound and implicitly for the CSBR). Place can also be elucidated by perspectives from Aboriginal cultures (e.g. Umeek * Atleo, 2004, also for Clayoquot Sound). For related issues of governance, political economy and policy perspectives, compilations of writings about a place can be very insightful (e.g. Magnusson and Shaw, 2003, also about Clayoquot Sound).

The policy arrangements literature emphasized the importance of the discourse-social practice problematique. This opens up more fundamental questions about the social construction of place. Winkel (2011) draws upon a Foucauldian discourse analysis that emphasizes the importance of power relationship structures that both define the "realities" of a given political or policy situation usually declaring them to be science-based, while also excluding other interpretations. This approach also draws attention to

the diverse strategies used by individuals and groups striving to control discourses; and it identifies the phenomenon of "governmentality" by which people with power and authority define new categories of people or things that need to be governed by those in power. These kinds of discourses are persistent in presentations of the tropical colonial forestry in which western corporate industrial forestry practices are presented as scientific and progressive. Similar arguments have arisen in boreal forest disputes in northern Europe.

The recent debates over the Canadian boreal forests have been interpreted in part through the discourses among key groups, especially those associated with contending actor systems. One example given by Stoddart (2007) was the reporting on forestry issues in a main daily newspaper in Vancouver over a 5-year period (2001-2005). The media supported the provincial government's policy of declaring all forests not in protected areas as being the "working forest" that was needed for economic prosperity. The newspaper supported the industry's call for "certainty and stability" of the size of these forest allocations in order to revitalize the industry. Reporting about the environmental policy debates was restricted to industry's moves towards a "greener capitalism", and to some criticism of the government's attempts to conflate the interests of the forest industry with a reified general interest. Views from First Nations and labour organizations in these debates were notably under-reported.

Discourses have been underway for several years whereby interpretations of the boreal forests in Canada have gone from a vision of them as largely undisturbed wilderness to being discovered as a global carbon processing resource of great potential value in some as yet developed global carbon trading system. This has been noted and commented upon at length by Baldwin (2003; 2009a, 2009b) who found these discourses overwhelmingly reflected the views of the dominant European settler society. They include "ethnoscaping" of illustrations of the boreal forest into a racially dominated "liberal whiteness" that, upon reflection, exhibited a "deeply chilling silence" about the many Aboriginal communities that live there and who consider the boreal forest to be their traditional homelands. The contending narratives of the forest as wilderness and as a global carbon reservoir both assume away any *a priori* human presence.

The more general framework for these kinds of contending discourses is one sketched for an "anti-essentialist political ecology" by Escobar (1999). It includes a decline in the belief about "Nature" as an essential principle and foundational category that has intrinsic value, truth, and authenticity (as exemplified by certain beliefs about "wilderness"). Instead it is commonly viewed as a socially constructed interpretation that includes societal beliefs, history, and ontological transformations. The latter are about to modify "Nature" greatly by techno-science changes at the molecular levels of genetically modified organisms and nanotechnologies. Another dominant feature is "capitalist nature" in which commodified resource values are all that matters, while the political economy is dominated by the "governmentality" of mutually reinforcing state and capital power relations. Nevertheless, there is also "organic nature" where cultural and local knowledge exist in complex interrelationships that develop between the society and its cosmological interpretations of "nature". First Nations exemplify this in the boreal forest (and elsewhere).

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