Governance, social capital and social learning: insights from activities in the Long Point World Biosphere Reserve and the Oak Ridges Moraine, Ontario, Canada

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Abstract

Social aspects in biodiversity conservation are explored through governance, social capital and social learning processes in the Long Point biosphere reserve and proposed Oak Ridges Moraine biosphere reserve, Ontario, Canada. Insights on governance, social capital and social learning are provided for both case studies. Evidence from the two cases suggests that governance, social capital and social learning are closely interrelated and important to the success of biosphere reserve biodiversity conservation and sustainable development activities. In both the Long Point and Oak Ridges Moraine cases, civil society has led biosphere reserve logistics activities and this involvement in governance processes requires existing social capital. Civil society participation appears to result in social learning and social learning creates additional social capital and contributions to governance.

1. Introduction

Biosphere reserves are designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in recognition of areas working toward sustainability. Biosphere reserves are intended to fulfill three complementary and mutually reinforcing functions: contribute to biodiversity conservation; foster sustainable economic and human development; and provide logistics support for research, monitoring, education and information exchange.

This paper explores the social aspects of biodiversity conservation through governance, social capital and social learning in the Long Point Biosphere Reserve and the proposed Oak Ridges Moraine (ORM) Biosphere Reserve, Ontario, Canada. Background information is provided on each case study area and the concepts of governance, social capital and social learning. Research methods and results are presented including general observations regarding governance, social capital and social learning along with specific observations based on an analysis of one recent project in each case study. Results are discussed in the context of the relationship between governance, social capital and social learning and in the context of biosphere reserve logistic activities.

1. 1. Background: The Two Case Studies

The Long Point World Biosphere Reserve was designated by UNESCO in 1986. Long Point is a 32 km sand spit located on the north shore of Lake Erie, in Norfolk County, Ontario and is an example of the Great Lakes coastal ecosystem. The Long Point complex is an important staging area for migrating waterfowl, renowned for superb bass fishing and birding, and is home to the largest number of endangered, threatened and species of concern in Canada (Craig et al. 2003). The biosphere reserve is administered

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by the Long Point World Biosphere Reserve Foundation (LPWBRF), a charitable, not-for-profit, volunteer civil society organization.

The ORM is located to the north of the City of Toronto and extends from the Niagara Escarpment in the west to the Trent River in the east. The Moraine is approximately 190,000 hectares in size, 160 km in length and is between 3 and 24 km wide. The moraine is a glacial landscape feature created by multiple advances and retreats of glaciers during the Pleistocene glaciations. The material transported by the final advances some 10-12,000 years ago and their interaction with previously accumulated drift resulted in the ORM in its current form (Oak Ridges Moraine Technical Working Committee 1994, Government of Ontario 2002). The ORM is also an area of high biodiversity due to variable topography. An exploratory committee made up of volunteers is currently looking at the potential of nominating the ORM as a biosphere reserve.

1.2. Background: Governance, Social Capital and Social Learning

Governance in the context of this research is defined as "the involvement of a wide range of institutions and actors in the production of policy outcomes including NGOs, quangos, private companies, pressure groups and social movements, as well as those state institutions traditionally regarded as formally part of government" (Painter 2000). The definition recognizes that the state is not solely responsible for societal development. Painter indicates that most writers suggest that the state has become less prominent and non-state players more important. A second definition refers to the nature of the relationships between organizations. Here "governance involves coordination through networks and partnerships (Painter 2000).

Civil society has a role to play in governance and the opportunity to contribute to institutional arrangements that are more adaptive and fair. Civil society is described as "the activity of citizens in free association who lack the authority of the State" (Swift 1999) including "the

population of organizations trying to change some aspect of society, including government policy, cultural values, corporate practices, and the activities of intergovernmental organizations" (van Rooy 1999). Swift (1999) suggests that "such activities are motivated by objectives other than profit making". In Canada, the majority of biosphere reserves are administered by civil society organizations that work to achieve influence over governance processes within their biosphere reserves.

1. 3. Social Capital

Social capital is a resource that facilitates collective action including collaboration (Gertler 2000, Maloney et al. 2000, Sobel et al. 2001). It is the combination of obligations, expectations, trustworthiness (Maloney et al., 2000), quality of information flows, norms, values, attitudes (Sobel et al. 2000) and rules that frame relationships (Maloney et al. 2000). The quality and use of these assets determines the social capital available (Sobel et al. 2000).

Social capital is generated by networks of civic engagement (Maloney et al. 2000). Social capital contributes to policy development and outcomes in various areas including environment "education, health, crime, welfare, economic growth, the performance of political institutions and the development of effective and democratic governance…" (Maloney et al. 2000, Rudd 2000). Networks are critical to the generation of social capital. Networks attract government resources, facilitate learning, improve communication and increase effective use of volunteer time. Networks with these characteristics can function as public forums and lead to politically relevant organizations (Sobel et al. 2001). Social capital is a tool that helps explain civil society infrastructure and why certain regions (potentially biosphere reserves) display more vigorous political and social activity than others (Maloney et al. 2000).

1. 4. Social Learning

Mezirow (1994) describes six ideal conditions for learning, these include: accurate and

complete information; freedom from coercion; openness to alternative perspectives; ability to reflect critically upon presuppositions; equal opportunity to participate; and ability to assess arguments in a systematic manner and accept a rational consensus as valid. These conditions provide a useful basis for developing public forums that will foster learning and critical reflection. Mezirow's (1994, 1998) work highlights the need for alternative perspectives, critical reflection as well as the importance of acknowledging power relations within the learning process.

The sociological perspective of social learning moves beyond individuals learning in a social context to seeing learning occurring on the scale of social structures such as organizations and institutions (Argyris 1993). Such a view of social learning sees it as an expression of co-ordinated cognitive and normative adjustments resulting in social change. Webler et al. (1995) provide a useful starting point for a discussion of the nature and definition of social learning. They note that, "social learning means more than merely individuals learning in a social situation … (they) envision a community of people with diverse personal interests, but also common interests, who must come together to reach agreement on collective action to solve a mutual problem" (Webler et al. 1995). The authors go on to define the concept of social learning as, "the process by which changes in the social condition occur – particularly changes in popular awareness and changes in how individuals see their private interests linked with the shared interests of their fellow citizens" (Webler et al. 1995).

Planning and management should not be seen as the search for an ideal or even optimal solution to a single problem but rather an ongoing process of adaptation, learning and negotiation (e.g., Kay et al. 1999 and Mitchell 2002). Fostering ongoing social learning can help overcome the limitations of existing institutions involved in planning and management. Social learning leads to organizations including biosphere reserve civil society organizations developing greater capacity as they learn to address multi-scale issues, and work within collaborative forms of governance and policy-making (Tippet et al. 2005).

2. Methods

The information for this paper is drawn from three sources the authors have been involved with including the Biosphere Sustainability Project and dissertation research (Biosphere Sustainability Project 2006, McCarthy 2006, Whitelaw 2006). Dissertation research involved key informant semi structured interviews and policy document analysis in both case study areas. Semi-structured interviews involved use of a number of predetermined questions and / or special topics. The interviewers were permitted to probe far beyond the answers to their prepared and standardized questions. Snowball sampling was also used in the context of the interviews to identify other potential interviewees (Berg 2001). The transcripts were analyzed manually based upon the interview questions. Emergent themes and issues, related to the content of the dissertation, were also analyzed. Each respondent was asked to identify key documents for understanding the issues and events associated with the Long Point and Oak Ridges Moraine cases. Once all the documents were acquired, they were systematically reviewed as a means of triangulation. For each policy document, its purpose, content and significance for the research were described. The policy document analysis was used to verify details regarding key events, key individuals / groups / organizations / agencies, the role of knowledge and learning and resulting shifts in policy identified in the context of the interviewees' narrative descriptions of the ORM policy development process.

Both authors are involved in participatory research through the Biosphere Sustainability Project. The Biosphere Sustainability Project is a Social Science and Humanities Research Council (Canadian Government Research Funding Agency) supported inquiry, more formally called "Citizen Engagement in Governance for Socio-Ecological Sustainability: Concepts and

Case Studies". Its purpose is to: draw together concepts and insights, along with case study applications, from three rapidly developing areas of academic enquiry – complex open systems, sustainability of socio-ecological systems, and civil society roles in governance; and determine the potential application and usefulness of some of these concepts and insights for people associated with biosphere reserves in Ontario, Canada. Participatory research was carried out through a Long Point project involving community sustainability workshops and through an ORM project involving the development of a multi-party and collaborative monitoring program (Monitoring the Moraine 2006, Whitelaw & McCarthy 2006).

3. Findings and Discussion

The Long Point Biosphere Reserve has been in existence since 1980 and the idea for an ORM biosphere reserve was first discussed in 1996. This extensive history required the information used for this paper to be scoped. A brief history is provided for each case along with general findings on evolving governance, social capital and social learning. This is followed by more in-depth results based on the participatory research introduced above.

3. 1. Long Point Biosphere Reserve

The management of the Long Point area is complex with some 19 government agencies administering 22 government policy and planning documents. In addition to the LPWBRF, there are more than 30 related civil society organizations participating in Long Point governance (Francis & Whitelaw 2001). The Long Point World Biosphere Reserve idea was first raised by Dr. George Francis. Enough social capital was available within the community to launch an effort to have the area designated, to create the LPWBRF and to carry out various biosphere reserve activities since 1986. The Foundation secures resources from various sources including government, private sector, foundations, and from the community through fundraising activities.

The LPWBRF has mainly focused its logistics work on biodiversity conservation in the transition zone. Activities have included monitoring and stewardship. Major efforts have been undertaken on forest biodiversity monitoring and ecological restoration to link core areas through the establishment of corridors. Monitoring activities carried out by the LPWBRF include: the establishment and ongoing monitoring of four SI/MAB Forest Biodiversity Monitoring Plots and salamander monitoring. The LPWBRF also provides community leadership through establishing "neutral forums" for the areas organizations and agencies to discuss contentious issues. The biosphere reserve has also made efforts to collect, analyze and report information through conferences such as the Niagara Escarpment Biosphere Reserve Leading Edge Conference Series (Niagara Escarpment Commission 2006), the local newspaper and the biosphere web site.

Social learning on the part of the Foundation Board led the Foundation to expand its mainly conservation biodiversity efforts to include initiatives designed to address sustainable development. The decision was made in response to recognized trends in the biosphere reserve including changes in agriculture driven by globalization that was leading to land use changes and the loss of young people to urban centers.

The LPWBRF made the decision to host four workshops organized around four community sectors to initiate community discussions on sustainability. These sectors included business and industry, service, conservation and agriculture. Attendance varied with each workshop. The business and industry workshop had 6 participants, the service sector workshop 6, the conservation workshop 25, and the agriculture workshop 19. Each workshop consisted of three main components: an introductory presentation on biosphere reserves and the work of the LPWBRF since the reserve was established in 1986; a presentation by the Norfolk County Planning Department on the County's 2026 Sustainability Vision (Norfolk County 2003), developed as part of the County's latest Official

Plan review process; and a facilitated session designed to allow the participants to express their views on the topic of sustainability.

The four workshops provided a number of community members with access to useful information about the biosphere reserve and its role in the sustainability of the Long Point community. It also provided workshop participants with an opportunity to communicate and reflect upon the complex and contentious issues around sustainability in the Long Point community.

Throughout the workshop series, an effort was made to provide an atmosphere conducive to collective or social learning. Each workshop began with a description of the role of the Long Point biosphere reserve and the Foundation's interest in engaging the community to help broaden its mandate from a solely biodiversity conservation focus to embrace the more comprehensive notion of sustainability. During each session community members were asked specifically to raise the major trends, issues, resources and barriers to sustainability as well as to make suggestions to the Foundation for sustainability-focused projects. As such, the sessions provided community members with accurate and broad-based information about the issues impacting their community's sustainability potential in an open and self-directed atmosphere. In the context of the small group discussions, each community member was encouraged to reflect critically on the trends, issues, resources and barriers to sustainability previously raised. Participants were then encouraged to collectively discuss these and to move toward a consensus on possible initiatives that could foster sustainability in the Long Point area. In this atmosphere community members were able to openly share and reflect upon the various perspectives of the group and collectively learn from each other.

Through this process it became evident that many of the community members already possessed a sophisticated understanding of the trends, issues, resources and barriers to sustainability in the Long Point area. This may have resulted from social learning initiated through previous sustainability-related community engagement processes such as the recent County of Norfolk Official Plan Review process (County of Norfolk 2006). By raising issues such as rural poverty, the influx of retirees, youth emigration and describing the influence of trends such as the collapse of the tobacco growing industry and the impacts of globalization, community members demonstrated a sophisticated level of reflection (Schon & Rein 1994).

When asked about the trends, issues, resources and barriers to sustainability in their area, community members did not simply site regulatory or policy-related issues or even issues related to the policy-making process itself. Instead, much of the discussion focused on much broader institutional perspectives such as the impacts of economic globalization which represents what Schon and Rein (1994) would refer to as 'institutional action frames'. In the context of generating potential sustainable development-focused projects and policies, this broad, sophisticated level of reflection is necessary to address such complex, interrelated and controversial issues such as the collapse of the tobacco industry, rural poverty and the impacts of economic globalization on the agricultural sector (Schon & Rein 1994).

Workshop participants raised issues around how best to communicate and market the Long Point biosphere reserve and how to improve education and agri- and eco-tourism initiatives in the Long Point Area. They also posed more normative questions around the issues of youth emigration from the area and rural poverty noting that existing programs and policies were inadequate and suggested that further research in these areas be carried out.

3. 2. Proposed Oak Ridges Moraine Biosphere Reserve

The role of civil society in ORM planning and management has been significant in terms of forcing changes toward biodiversity conservation and environmental protection. The ORM landscape as a concept emerged initially from local activism in response to Not In My Backyard

opposition to subdivision and aggregate resources development and subsequently the formation of the STORM Coalition. The STORM Coalition set the agendas of various government studies (Environmental Assessment Advisory Committee 1989, Kanter 1990, Royal Commission on the Future of the Toronto Waterfront 1992). The STORM Coalition managed to convey the value of the ORM as a protected landscape to the authors of these studies. These studies identified the ORM landscape, its value, and recommended further study and protection.

The STORM Coalition and other civil society organizations initiated changes to existing land use planning regime structures (municipal planning) through advocacy and these activities attracted various other actors (Provincial government, conservation authorities and private sector) into the process. Civil society organizations vigorously set agendas, used the media, conferred legitimacy on positive government decisions regarding ORM protection and implemented solutions on the ground including biodiversity conservation (monitoring, land acquisition and stewardship) and exploration of the ORM as a possible biosphere reserve. These actions lead to the ORM Conservation Act and Plan in 2001 and 2002.

The evolution of the STORM Coalition illustrates social learning. The intent of STORM was to create a new structure that could more effectively address the complex inter-jurisdictional, hydrological and spatially-large issues associated with the entire moraine that could not be addressed by individual groups. The STORM coalition has established legitimacy because it is focused on broadly-based ORM conservation issues, represents a network of over 30 member groups from across the moraine, and because it brings new knowledge to planning and management processes. Knowledge includes scientific information, local information e.g. local ecology, hydrology, and governance information including the structures and dynamics of the relevant planning and decision making processes and associated power relations.

Although the ORM land use planning battle was successful in the eyes of the civil society organizations involved, social learning throughout has motivated many organizations to continue working on ORM activities. Many civil society organizations recognize that continued vigilance is required to ensure ORM biodiversity and ecological functions are maintained. Realizing that information is power, a coalition of three interested civil society organizations, STORM, Citizens Environment Watch and Centre for Community Mapping came together and launched the Monitoring the Moraine Project (Monitoring the Moraine 2006). The Monitoring the Moraine project is designed to engage and sustain community volunteers in science, stewardship, monitoring and decision-making on the ORM and to ensure the required information for participation in the ORM Conservation Plan's 10 year review in 2014 is secured. Civil society is leading the development of this comprehensive monitoring program. Government is one of the stakeholders along with representatives from the private sector. People living on the moraine, and those in neighboring urban centres are working together to ensure that the ORM Conservation Plan is not only adhered to, but that it is also effective and remains relevant over time. Both ecological and policy monitoring are being developed at the community level. The challenge is to create a common monitoring framework within which all stakeholders can partcipate. The Monitoring the Moraine project aims to: (1) develop, implement and evaluate collaborative approaches to community-based monitoring across the Oak Ridges Moraine landscape; (2) improve the efficiency and utility of both environmental and policy monitoring; (3) develop an effective and dynamic monitoring framework that is widely applicable to all communities and moraine-monitoring organizations; (4) generate a visual and interactive 'big picture' in the form of an online map that can be viewed and updated by anyone with Internet access; (5) inform decision making by disseminating relevant and credible environmental and policy

monitoring data to key decision makers; (6) facilitate a strong and informed community voice in the upcoming 2014 review of the ORM Conservation Plan; (7) provide a model for other large scale monitoring projects, provincially, nationally and internationally." (Monitoring the Moraine, 2006).

The Monitoring the Moraine project demonstrates that ample social capital remained after the civil society organizations forced the government to pass the ORM Conservation Act and prepare the ORM Conservation Plan. Furthermore, social learning associated with the MTM project has resulted in some of civil society organizations to recognize the legitimacy of working with government and the private sector through collaborative efforts rather than just advocacy alone.

Furthermore, these organizations have learned the importance of community well being in terms of the long term sustainability of the ORM Conservation Act and Plan. Unless local people are comfortable with the Plan's biodiversity conservation policies and see themselves as benefiting or at least not being negatively impacted, then the likelihood of the Plan's environmental policies being compromised in the future is possible. To address this issue the MTM project has selected as one of its monitoring themes community well being in an effort to gauge the Plan's impact on people living across the moraine.

4. Conclusions

The findings indicate that in both Long Point and Oak Ridges Moraine cases, civil society organizations are leading biosphere reserve activities. In the case of Long Point the Foundation is the lead and in the case of the ORM an exploratory committee is the lead in partnership with other interested organizations. Furthermore in both cases sufficient social capital to move the ideas of the biosphere reserve and then to implement activities has been demonstrated to exist. The findings also indicate that governance, social capital and so-cial learning are closely related concepts. Civil society organizations cannot participate in governance processes without available social capital. The two projects evaluated indicate that extensive social capital was available as the projects were complex requiring significant financial and volunteer resources. In both the Long Point workshops and ORM monitoring initiative, project sustainability was achieved. Social learning has also occurred in both cases. Individuals previously not associated with the project have become involved, learned and subsequently volunteered. With this additional social capital developed through social learning, an ongoing evolution or improvement of governance processes is likely.

These findings have two main implications for biosphere reserve organizations whether civil society or government based. The first is that major projects and initiatives should not be pursued if social capital or capacity is not available. The second is that all projects and initiatives should build in social learning components to ensure that additional champions are brought into biosphere reserve processes and that future activities will have the capital and resources necessary to continue efforts to improve governance processes.

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