Learning with Canadian Biosphere Reserves: Connecting researchers and practitioners through a national community of practice

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Because of the complexity and uncertainty associated with efforts to achieve sustainability and transformational change, researchers have called for approaches that support deliberation, dialogue and systematic learning through reflection, evaluation and feedback among multiple participants.[1] While research has focused on smaller-scale case studies, we do not know whether organizations that span spatial scales and governance responsibilities can establish effective communities of practice to facilitate learning and action. Additionally, while general principles of success such as shared vision, trust building and incentives have been identified, specific actions and factors supporting these principles have yet to be articulated. The purpose of this paper is to generate a framework that specifies actions and processes of a community of practice for collective learning and then to use the framework to assess a partnership established across a multi-level national network that included practitioners of 16 UNESCO biosphere reserves, and additional researchers and government representatives in Canada.

We rooted our efforts conceptually in notions of "community of practice" and "collective learning". We defined "community of practice" as a social group seeking to improve their practice by co-creating and exchanging knowledge through transparent discussion processes that embrace diverse knowledge systems and address alternative perspectives (adapted from Wenger 2003; Sinclair et al. 2008). Such a community should establish a joint enterprise that seeks to address gaps in knowledge; be organized through mutual engagement and reciprocity that involves sharing, interacting and supporting one another; and develops a shared repertoire of artifacts (e.g., routines, words, tools, etc.) (Wenger 1998). Such a community can include researchers and practitioners; their role is distinguished by their primary motivation for working together. We drew our definition of collective learning from Blackmore (2007: 516) who defined it as "interactive learning among interdependent stakeholders" with three key characteristics:

1. convergence of goals, criteria and knowledge, leading to more accurate mutual expectations, and the building of relations of trust and respect;
2. co-creation of knowledge needed to understand issues and practices; and/or
3. a change in practices, norms and procedures arising from the development of mutual understanding issues.

Empirically, we focused on a national partnership with UNESCO Biosphere Reserve practitioners. UNESCO biosphere reserves are geographic areas and civil society organizations of local residents, government representatives, and researchers who seek to learn about and take action to make transformational change to advance sustainability. Academics and practitioners refer to BRs as "living laboratories" and as "sites of excellence" for their efforts to facilitate

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[1] I deliberately use the word participants rather than stakeholders because "participants" suggests a more active role for individuals beyond simply "holding a stake". Additionally, "participants" does not presuppose what individuals or groups will have a "stake" in such actions, but relies on the participants to define for themselves, their interests and their activities (for further explanation, see Reed 2007).

dialogue between practitioners and researchers, and encourage learning through deliberation, networking and experimentation. Canada is home to 16 BRs. However, because of uneven and limited funding, large geographic distances and socio-cultural differences between sites, and a lack of experience with collective learning strategies, Canadian biosphere reserve practitioners have tended to work alone, thereby restricting their potential to achieve sustainability through transformative change and to enhance their resilience through collective action.

In 2011, using a methodology of participatory action research, the Canadian Biosphere Reserves Association and Canadian academic researchers formed a partnership to determine if they could jointly develop a "community of practice" dedicated to improving biosphere reserve effectiveness through social learning and networking strategies. Funded by a three-year grant from the Social Sciences and Humanities Research Council of Canada (SSHRC), the partnership also involved the national governing bodies of the Man and the Biosphere Programme (MAB) of UNESCO (i.e., the Canada-MAB committee and the Canadian Commission for UNESCO [CCU]). Between 2011 and 2013, practitioners identified, assessed, shared, and promoted their good practices according to three themes: sustainable tourism, ecosystem services and land management, and education for sustainable development. Their efforts resulted in sharing and broader adoption of pre-existing practices (e.g., tourism charters) as well as the generation of new products (e.g., curricula,videos), tools (e.g., web applications), skills (e.g., facilitation, structured evaluation) and knowledge sharing practices (e.g., through a new Indigenous Working Group). A bilingual (French/English) guidebook of proven good practices was launched at "EuroMAB" - an international conference of European and North American biosphere reserves in October 2013. It is now freely available on the Internet (http://unesco.ca/en/home-accueil/biosphere). Additionally, Canadian practitioners led or co-led several workshops at the EuroMAB to share what they had learned with others in the international network. New themes for national and international partnerships were also stimulated at the conference (e.g., Social Enterprise, Indigenous Peoples' Working Group).

Our assessment of the partnership is drawn from the specific outputs of the partnership, the one international and three national workshops, three sets of questionnaires at different stages of the project, interviews with participants at the beginning and end of the project, and detailed field notes. While most evaluation was undertaken as self-evaluation, the different roles played by different groups of participants provided insights from multiple perspectives.[2] Reflecting on Blackmore's characteristics of collective learning, the project succeeded in establishing common goals; setting mutual expectations and building relations of trust and respect; and co-creating knowledge. Additionally, our research revealed seven action steps necessary to support a community of practice (Figure 1). Importantly, the actions steps *begin* (and end) with reflecting and evaluating. Action steps worked to support seven 'success factors' for collaboration: building trust, establishing shared norms and common interest, creating incentives to participate, a positive perceived value in information sharing, willingness to engage, effective flow of information, and good leadership and facilitation. Key to success was the presence of a multi-lingual facilitator who bridged cultural differences across regions and academia-practitioner expectations and who took on multiple roles, including catalyst, animator, translator, and mediator across levels in the network. Importantly, the facilitator helped negotiate differences in participant interests and power relations. She translated concerns or interests of different groups and negotiated sensitive issues such as funding, desired project outcomes, and perceived value of the work. In doing so, the facilitator helped to "flatten" power relations and encourage on-going

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[2] To date, there has been no 'disinterested' and 'external' review of the work of the partnership.

participation. However, two issues emerged that will require on-going attention: structured evaluation at the local level and incentives for on-going participation at all levels. These issues are especially important now that the funding has expired. Our partnership helps address the call for improved documentation of collective learning processes, provides transparent strategies for building communities of practice, and in so doing, demonstrates how to establish conditions for collective learning and action that support environmental governance and sustainability.
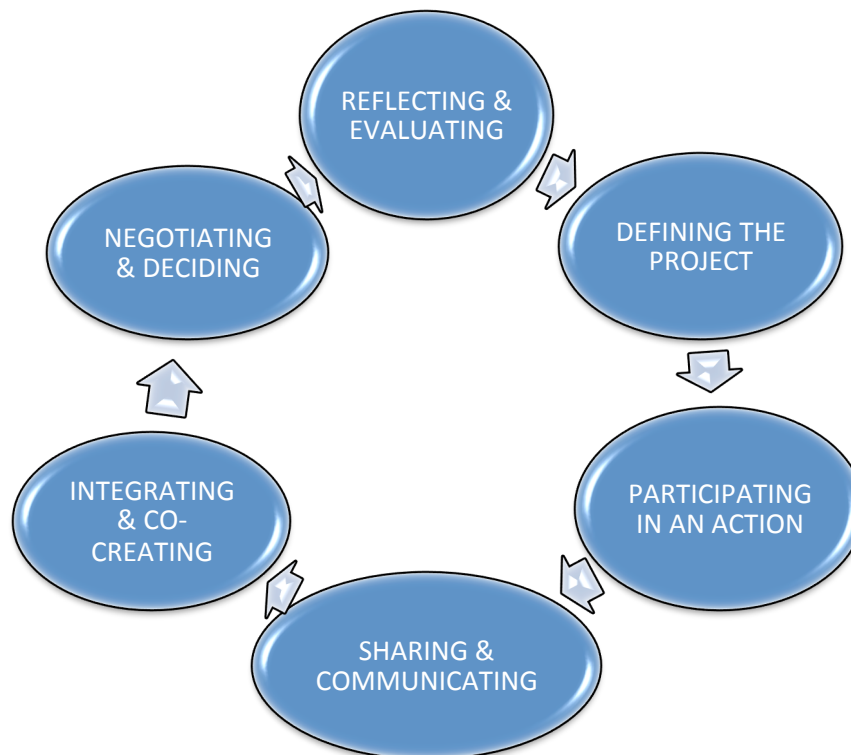

Figure 1: Steps in building a community of practice for collective learning and action

Source: Reed, M.G. et al. 2014.

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