

Social Capital and Collaborative Environmental Governance

The case of the Cape West Coast Biosphere¹

K Muller

Stellenbosch University

ABSTRACT

To cope with the increasing complexities of environmental challenges, innovative models of governance that are capable of greater flexibility, speed and adaptability have emerged. Following international trends, new collaborative partnerships varying greatly in form and purpose have developed over the last 15 years. The Western Cape Province, world renowned for the Cape Floristic Region and one of the world's 25 most threatened biodiversity hotspots, has also experienced a proliferation of 'collaboratives'. In an effort to contribute to the knowledge and understanding of building social capital and institutional capacity in these types of governance settings, this article focuses on the evolution of one of the more successful of these new forms – the Cape West Coast Biosphere Reserve – from an organisational learning perspective before reflecting on the question of whether the concepts of social capital and organisational learning are useful to explain its apparent success. Although the findings are inconclusive, a sufficient number of pointers have emerged from the exploration of the case study to warrant further research on the role of social learning and social capital as explanations of why particular collaboratives seem to be more successful in achieving desirable outcomes than others.

INTRODUCTION

South Africa has followed international trends with new collaborative environmental governance models emerging over the past 15 years. This wave of organisational innovation was stimulated globally by the need for governments that face capacity constraints to find alternative ways to add to public value and adopt new roles to cope with complexity and *the limits to governance* which threaten to overwhelm public action in the environmental arena. It is in this context that the trend towards establishing decentralised and localised collaboratives that are self-regulated and diverse, and capable of greater flexibility, speed and adaptability, must be viewed. In South Africa the openness to embracing and



experimenting with new ideas created by the post-1994 transformational context led to a burst of institutional innovation in the environmental sector, with a diversity of new forms evolving in less than a decade.

As South Africa is still at a relatively early phase in the evolution of collaboratives for environmental governance, it presents an opportunity for studying and learning what the key success factors are, or finding the magic mix of ingredients to achieve desirable outcomes. Initial research focused on *structural* issues: developing an analytical framework for identifying, describing and documenting the evolving characteristics of collaboratives (Müller 2007a), the forms of organisational innovation and the emergence of new governance models (Müller 2007b), and the application and refinement of the analytical framework using case studies in the Western Cape (Müller 2008). The emphasis then shifted to *process* and other *soft* issues: the role of multi-stakeholder processes in collaborative environmental governance (Müller & Enright 2009), the challenges of public leadership in involving new actors and the question of whether collaboratives improve the public value outcomes (Müller 2010).

The results so far have been inconclusive, so the quest for identifying *the magic mix* continues. However, so far it became apparent that (1) a surprising variety of new decentralised and innovative forms of collaboratives have emerged over the past decade; (2) there is apparently no single blueprint or model for collaboratives that will suffice for all problems and contexts; (3) the analytical tool with its 15 criteria is useful to comparatively describe and map the key characteristics of collaboratives; (4) inclusive multi-stakeholder processes are the key for building trust and consensus; (5) one could argue that, on the face of it, collaboratives have created considerable public value; and (6) the leadership challenges associated with collaboratives requires a shift of emphasis from management to enablement skills, while collaborative leadership requires a strategic vision in activating, orchestrating and modulating the co-management processes to achieve the desired collaborative outcomes.

The question still is why a particular collaborative is more successful in achieving desirable outcomes than another one in a comparable context and form? The aim of this article is to explore whether the informal dimensions beyond the formal structures and processes – captured in the concepts of social capital and social learning – could be helpful to provide some pointers to the question posed above. There is a growing body of evidence which suggests that social capital could have an enormous effect on natural resource management and these emerging governance structures could therefore offer an exciting opportunity to study social and organisational learning at this point in time. To achieve this aim, *firstly* some theoretical concepts will be discussed as points of departure; *secondly*, a case of an apparently successful collaborative will be described, analysed and evaluated. In conclusion, some observations will be made and some pointers to the importance of social learning and social capital in achieving the desired outcomes will be offered.

COLLABORATIVE ENVIRONMENTAL GOVERNANCE, SOCIAL LEARNING AND SOCIAL CAPITAL

As the theoretical basis of departure, the concepts of collaborative environmental governance, social learning and social capital are introduced below.

Collaborative Environmental Governance

Margerum (2008:487) describes collaboration as the involvement of a wide range of stakeholders from a broad cross-section of organisations engaging in an intensive process of consensus building in search of innovative solutions and sustained commitment to problem solving. The collaborative approach is built on the premise that local communities and other stakeholders have a role to play in natural resource management (Hara 2003:19–20; Borrini-Feyerabend *et al.* 2004:64–70). Therefore a collaborative process should strive to facilitate the expression of concerns by all role players, building trust and fostering the willingness to reach consensus by stakeholders to take advantage of the diverse stakeholder capacity. The purpose of consensus building is to meet the needs of all participants, facilitating acceptance of responsibility for the solution and its implementation (Carley & Christie 2000:184).

The form of structures through which co-management is implemented – generally known as *collaboratives* – can vary from more informal to more organisational forms, but are typical networks or partnerships as the basic social form that permits inter-organisational collaboration to develop. A collaborative network or partnership, linking the public, private and voluntary sectors should be flexible, open to learning and capable of restructuring itself over time. A core competency in collaborative development is networking, because the most important functions of forms are their capacity to share ideas and values, and develop trusting relationships and methods of cooperation and collaboration. The evolution of collaboratives may involve different phases and can typically consist of a problem-setting phase followed by; direction setting, before; implementation, and finally; the phase where institutionalisation takes place (Gray 2007:33).

Social Learning

The notion of social learning is increasingly cited as an essential component for the collaborative management of natural resources. The concept is defined by Schusler *et al.* (2003:311) as “learning that occurs when people engage one another, sharing diverse perspectives and experiences to develop a common framework of understanding and basis for joint action”. The foundations of social learning can be conceptualised as a group process taking place in networks or *communities of practice*. Such communities emphasise the development of shared meanings and practices that characterise the social entity as a whole and go beyond participation and are linked to joint practice; they are embedded in a structural governance context and produce specific outcomes (Pahl-Wostl *et al.* 2007). It is assumed that high-quality processes in this type of multi-stakeholder collaboration lead to outcomes that are of better quality both in technical and relational terms.

Focusing on community-based co-management, Schusler *et al.* (2003:317–324) identified eight process characteristics that enabled social learning: (1) open communication; (2) diverse participation; (3) unrestrained thinking; (4) constructive conflict; (5) democratic structure; (6) multiple sources of knowledge; (7) extended engagement; and (8) facilitation. They concluded that social learning is necessary but not sufficient for collaborative management; other requisites for co-management including capacity, appropriate processes, appropriate structures and supportive policies are necessary to sustain joint action.



Social learning increases adaptive capacity and leads to sustained processes of attitudinal and behavioural change among individuals in social environments through interaction and deliberation. According to Pahl-Wostl *et al.* (2007), who are writing in the context of water management, for social learning to increase both the adaptive capacity and the effectiveness of collaborative governance requires a fine balance between the stabilising and change-supporting elements of a governance regime. The most resilient collaborative networks show a balance between increasing institutionalisation and the formation of social capital; thus, if structures and rules become rigid too quickly, the formation of social capital is impeded.

Social Capital

According to Margerum (2011:182) and Wondolleck and Yaffee (2000:16), the idea that communities possess not only physical capital, economic capital and human capital, but also social capital was popularised by Robert Putnam (2000) and others. Social capital is defined by Blewitt (2008:78) as “a term we can use to denote those relationships by which groups and individuals communicate, network, build trust, enter into dialogue, resolve conflicts, identify and solve problems and realise collective and individual potential as agents of sustainable development.” A distinction is also made between bonding and bridging social capital: bonding social capital is inward looking and tends to reinforce exclusive identities and homogenous groups, whereas bridging social capital is outward looking and tends to cut across social cleavages (Margerum 2011:186).

The formation as social capital takes place in collaboratives or “communities of practice” (CoP) (Wondolleck & Yaffee 2000:16). CoPs constitute social capital because the results

Table 1 The assessment factors and measures for collaborative efforts

Assessment Factors	Measures
<p><i>Community networks:</i> There are strong networks in the community in which the collaborative is working</p>	<ul style="list-style-type: none"> • Participation and turnout • Membership number • Volunteer rates in community organisations
<p><i>Linked stakeholders:</i> Stakeholders are linked into social networks</p>	<ul style="list-style-type: none"> • Representativeness of participating stakeholders • Membership networks of stakeholders • Amount of communication through networks
<p><i>Connectivity:</i> Collaborative is connected into the community through members and volunteers</p>	<ul style="list-style-type: none"> • Membership numbers and meeting attendees • Volunteer numbers • Newsletter subscribers • Cross-sectional community interviews
<p><i>Reputation:</i> Collaborative has a good, established reputation in a community</p>	<ul style="list-style-type: none"> • Longevity of collaborative • Staff experience and turnover • Reputation as change agent • Community perception and awareness
<p><i>Implementation programmes:</i> Implementation programmes capitalise on social networks of collaborative</p>	<ul style="list-style-type: none"> • Implementation approach designed around existing linkages • Programmes linked to reputation • Programmes targeted to leverage points • Evaluation of programme outputs and outcomes

Source: Adapted from Margerum (2011:188)

of social learning practices are preserved in their shared roles and practices; the concept *social capital* is used here to refer to the features of social organisation such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit. It is argued that the higher the social capital in a given social context, the lower the transaction costs needed in the provision of a public good such as environmental quality or improving ecosystem resilience. It also increases the adaptive capacity of the organisations capable of accumulating the experiences and collective memory they need to cope with surprise and turbulence.

The literature on collaboration often emphasises the importance of social networks in a collaborative group in the building of social capital, allowing them to communicate effectively, identify common goals, build trust and seek consensus (Margerum 2011:182). Margerum (2011:182) identifies five factors that can be used to assess collaborative efforts as well as the ways in which these elements might be measured. The assessment factors and measures are summarised in the Table 1.

CASE STUDY – CAPE WEST COAST BIOSPHERE RESERVE (CWCBR)²

The Cape West Coast Biosphere Reserve (CWCBR) was chosen as an example of an apparently successful collaborative. The CWCBR has received international *best practice* recognition by being requested by United Nations Educational Scientific and Cultural Organisation (UNESCO) as one of only five biospheres selected to present a case study at the 3rd Congress of International Biosphere Reserves held in Madrid in 2008 to build the capacity of other biospheres. The details included in this section were mostly obtained from a personal interview with the CEO of the Cape West Coast Biosphere Company Ms Janette du Toit (2012) and won't be referenced repeatedly. Where other sources are referenced, this will be indicated.

The initiative to establish a biosphere reserve originated within civil society when a group of landowners recognised in 1998 that urgent action was necessary to ensure that appropriate development plans be put in place to guide the future development of the Cape West Coast in a sustainable manner. The West Coast is unique in terms of its natural beauty, biodiversity, history and culture, but the expansion of housing, industry and agriculture have placed great strain on terrestrial, marine and aquatic natural ecosystems. As the City of Cape Town expands northwards, the population of the West Coast was projected to double between 2002 and 2012 (CAPE 2012). The City of Cape Town (one landowner from the group who initiated the idea was also a councillor) and the landowners funded a private consultancy (Dennis Moss) to initiate the process and prepare the application for the establishment of a biosphere reserve. Through a process of extended stakeholder engagement the buy-in was sought and the support obtained from the relevant national government departments, the provincial government, the City of Cape Town and the four smaller municipalities in the area. A decision to support the application to proclaim the Cape West Coast as a biosphere reserve was ratified by the local, provincial and national governments in 2000.

The Cape West Coast Biosphere Reserve (CWCBR) covers 378 000 hectares of coastal lowland plains and is located in the northern part of the Western Cape Province – world



renowned for the Cape Floristic Region and one of the world's 25 most threatened biodiversity hotspots; the reserve stretches northward from the City of Cape Town to the Berg River (Cape West Coast Biosphere 2012). It is one of seven biosphere reserves in South Africa and was established in 2000 when the area was designated by UNESCO's Man and the Biosphere Programme as a biosphere reserve. The biosphere reserve model promotes harmony between development and the natural environment, and serves as a model of sustainable development and social learning. Biosphere reserves have three basic functions: (1) to protect the biodiversity, natural ecosystems, attractive landscapes and the local culture; (2) to promote social and economic progress, without damaging or depleting the natural resources; and (3) to promote education, research and monitoring (UNESCO 2012).

A biosphere reserve typically has three different management zones: a core zone (areas protected by law), a buffer zone around the core zones to protect them from the impacts of human activities, and a transition zone where human settlements are located. The CWCBR has two core areas: the West Coast National Park, which includes the Langebaan lagoon, a recognised wetland of international importance under the RAMSAR convention, forms the northern core zone of the biosphere. The southern core zone consists of the Blaauwberg Conservation Area, which is also a formally protected area as required by UNESCO's criteria.

The governance structure of the Cape West Coast Biosphere Reserve takes the form of a not-for-profit company (section 21 company under South African law) – known as the Cape West Coast Biosphere Reserve Company – which is managed by a board of nine directors. The directors are elected annually by the members (both individual and institutional). After the formal establishment of the CWCBR in 2000 the governance structure for the first six years consisted of the board of nine directors (elected by the first 12 members of the company) with an office and administrator funded by the provincial administration. During the period the board focused on the development of a strategic plan and initiated the process to develop a spatial development plan for the reserve. The first full-time coordinator was appointed in 2006 with international funding, initially for period of three years.

The governing board has monthly meetings which are well attended. The board members represent a variety of stakeholders and communities, and have a diversity of skills (financial management, environmental consultancy, legal, political, community leadership) and are linked to other networks, for example, Birdlife Africa, Langebaan Ratepayers Association, local governments and political networks (individuals also being councillors), the West Coast National Park Forum, co-operatives and tourism organisations. The board is supported by a team of technical advisors from provincial and local government stakeholders.

The goals of a biosphere as formulated in its strategic and business plans are implemented through programmes and projects. As a result of the number of successful funding applications, the implementation of projects (mostly two-three year projects) gained momentum in 2008 and the staff complement grew from two in 2006 to 14 in 2012. The staff employed by the CWCBR now includes a Chief Executive Officer (CEO) as well as conservation, education and tourism officers. The programmes/projects are focused on three main areas; (1) conservation projects (for example, the development of the spatial development plan, the conservation stewardship programme, which aims to conserve biodiversity on private land through different contractual agreements and incentives; alien vegetation eradication, fynbos

restoration projects); (2) education (outreach to school children and teachers); and (3) the trails and tourism project (Cape West Coast Biosphere 2012).

The conservation and education projects got off the ground first in 2006 through international and local funding, but the trails and tourism project, although part of the original strategic plan, took longer. In 2007 funding for a feasibility study was acquired and in 2010 the project received SA Lottery funding and has since developed into a separate unit employing seven people. The latter project has a strong social development component in that local community organisations (e.g. !Kwa Thu, the San community centre, Fossil Park and local tourism organisations) are contracted by the CWCBR to execute sub-projects, thereby contributing to the building of capacity in the community. A small grants programme made possible by funding from the Table Mountain Fund in 2010–2011 saw community organisations, co-operatives and churches implement a total of 18 conservation and tourism projects, also contributing to the building of capacity. The trails and tourism project has given the CWCBR considerable exposure with newspaper articles appearing in the local press and a feature article in *Getaway* – a national outdoor magazine – while it also communicates through electronic newsletters and utilises social media with a *Facebook* page and *Google* advertisement. CWCBR employs its own social media person.

In 2010 the CWCBR started to target industry specifically with the conservation stewardship programme in mind, as some companies also own land valuable from a biodiversity point of view, and it has attracted six corporate members to date. One company (Afrisam) joined the stewardship programme and a contractual nature reserve was established on land that it owns. It is also funding two conservation officers to manage the land. This prompted the World Wide Fund for Nature (WWF) to buy an adjacent property, which will also be managed by the CWCBR. The CWCBR is now obtaining funding from industry, the provincial administration, three of the four municipalities, SA National Lottery and tourism organisations on a continuous basis, which makes it financially more sustainable and less dependent on short-term project-based funding.

OBSERVATIONS AND FINDINGS

By all accounts the CWCBR is an example of a successful collaborative which has added to the creation of public value in terms of environmental, process and socioeconomic outcomes. Although it might not be possible to draw any definitive conclusions on the question as to why it is more successful in achieving desirable outcomes than other collaboratives in a comparable context, it could be worth exploring some observations based on some of the theoretical points of departure relating to social learning and social capital theory.

- **Collaborative development:** The evolution of the CWCBR followed the textbook model of collaborative partnership development, where extensive stakeholder engagement (*problem-setting phase*) preceded the conceptualisation and implementation of the strategic plan, the business plan and projects. In the 12 years of its existence it has evolved from the pre-2000 phase, when problems and partners were identified and encouraged to commit themselves to the establishment of the CWCBR. The period from its establishment in 2000 until 2006 (*direction-setting phase*), when the current



CEO was appointed, can be characterised as the stage of information gathering and stakeholder engagement, where issues were explored and strategic and business plans were formulated. This process was mostly independently facilitated by the consultants commissioned by the CWCBR to do feasibility studies before embarking on any project. Since 2006 the CWCBR has moved into the *implementation phase*, where agreements were put in place and programmes and projects implemented. The structuring and regularisation of the on-going interactions among stakeholders or the *institutionalisation phase* might have already commenced with the rapid expansion of staff after the trails and tourism project got off the ground in 2010. Another indication that it could have moved into the next life-cycle phase is the fact that the CWCBR has lately also become directly responsible for the conservation management of land could be beneficial for its long-term sustainability; this indicates a shift from being an organisational collaborative working through other organisations to becoming an action collaborative (Margerum 2008).

- **Leadership:** The governing body has shown strong strategic leadership over the lifetime of the CWCBR in the way they have built trust and consensus around its vision and goals, and ensured a continuity of approach. An important measure of the trust (and indirectly the stock of social capital) is the way that conflict and disagreement are managed. The diverse group of individuals who serve on the board do not always agree on all issues. Decision-making by voting is avoided and decisions are made on a *sufficient consensus* basis; an example is a recent board meeting which lasted eight hours and eventually a decision was taken with 80% consensus. This illustrates a degree of maturity and constructive conflict management.
- **Networking:** The CEO has also displayed considerable strategic and tactical acumen in her approach. Realising that local governments in the area are important but potentially the weak links, she focused initially (2006–2007) on building a personal relationship with the individual municipal managers and on working and building on their individual visions for the reserve and their communities' role (and making a point of making the local authorities *look good*) as well as identifying and personally meeting with potential funders while preparing funding applications. Her networking skills – a core competency in working in collaborative settings – undoubtedly contributed to a large extent to the success of the biosphere.
- **Social capital and adaptive management:** It is reasonable to argue that the continuity of approach and activities facilitated the sharing of experiences and a collective memory, which in turn contributed to the accumulation of social capital and the development of adaptive capacity and resilience. In the South African context with its apartheid past, one could argue that it is of key importance to nurture *bridging* social capital (compared to *bonding* social capital, where elite environmental interest groups are allowed to push only the environmental agenda, as has happened in one of the other biosphere reserves in the Western Cape); bridging social capital is outward looking and cuts across social cleavages. In this regard the biosphere has done particularly well by targeting individuals and community-based organisations from previously disadvantaged communities as project contractors through, for example, the small grants programme which has seen community organisations, co-operatives and churches implement conservation and tourism projects. In this type of approach

the CWCBR has created more than 800 jobs and contributed to capacity-building and poverty alleviation.

- **Organisational learning:** The uncertainty caused by short-term project funding and how to proceed necessitated a *learning by doing* approach. A case in point is the appointment of a conservation manager to implement the conservation stewardship programme in the area. It was the first example of where a government mandate (CapeNature, the provincial conservation agency) was transferred to an NGO to implement. The manager had to feel his way and first developed trust and relationships through stakeholder engagement before he started to negotiate contractual reserves and biodiversity land offsets with developers.
- **Presence of community networks and linked stakeholders:** There are indications of fairly well developed networks in the community from environmental interest groups (e.g. Birdlife Africa), ratepayers associations, political parties, tourism-promoting associations, national park forums to church groups which has interacted with CWCBR in some or other way. Of interest is the use of social media in this regard by the CWCBR. Again, although not quantifiable in terms of the role they play in communicating the CWCBR vision, one can assume that stakeholders, i.e. the board members, the team of technical advisors, project contractors, tourist operators, teachers and any other beneficiaries, are well linked to networks both formally (e.g. the examples above) and personally.
- As far as **connectivity** with the community is concerned, there is evidence that through the exposure gained, especially by the trails and tourism project, the profile of the biosphere has been raised considerably, meetings and workshops are well attended and the number volunteers is increasing. There is considerable community perception and awareness of the CWCBR because of its impact on poorer communities by creating jobs (more than 800) through the implementation of its projects and education (more than 5 000 children and teachers reached).
- **Reputation:** Probably the best pointer to the stock of accumulated social capital is the fact that the collaborative has a good, established reputation in the community as one of the longest functioning collaboratives in the Western Cape the WCBR has managed to build a very solid reputation for itself in the 12 years of its existence. It has experienced a very low staff turnover (in fact only one staff member has left the company) and, although the board has experienced some turnover, the core of directors is the same individuals (two who resigned came back after five years) which facilitated continuity of approach and activities. The shared experiences and collective memory must have contributed to the accumulation of social capital.
- **Implementation programmes:** The biosphere concept, with its philosophy of experimenting with models for sustainable living through learning by doing, lends itself well to the study of social learning and the building of social capital. It can be argued that, on the face of it, considerable value has been created by this collaborative in terms of environmental, process and socioeconomic outcomes. For example, 24 010 hectares more land is under better conservation management than before by statutory, contractual and voluntary protection in reserves; the leveraging of R12 863 778 (of which over R6 million in 2011/2012) in funding since 2008 for projects from both national and international sources brought over R5 054 000 into

the region as revenue; the creation of more than 800 jobs contributed to capacity-building and poverty alleviation; the flexible organisational forms and apolitical stance of the not-for-profit company facilitated cooperation between stakeholders less hampered by bureaucratic and political constraints; inclusive multi-stakeholder processes with information and knowledge sharing have built trust and consensus over extended periods of time; and the promotion of capacity-building and job creation.

CONCLUSION

In its success there might be a danger lurking as the most resilient collaborative networks shows a balance between increasing institutionalisation and the formation of social capital; thus, if structures and rules become rigid too quickly, the formation of social capital is impeded. Although social learning is necessary but not sufficient for collaborative management – and other requisites for co-management including capacity, appropriate processes, appropriate structures and supportive policies are necessary to sustain joint action – there is a growing body of evidence that suggests that social capital could have an enormous influence on natural resource management and even the effectiveness and functioning of governments.

Although the findings of this article are inconclusive in so far as this case study is concerned, it has explored and found sufficient pointers to warrant further research on the role of social learning and social capital as a possible explanation for why particular collaboratives seem to be more successful in achieving desirable outcomes than others in comparable contexts.

NOTES

- 1 This article is partly based on a paper entitled *Social Capital and Collaborative Environmental Governance: Lessons from Western Cape, South Africa* delivered at the **30th International Congress of Administrative Sciences on “Challenges for Local Governance and Development in the 21st Century”** in Bangkok, Thailand, 16–21 July 2012.
- 2 The observations in this section are based on a personal interview with Janette du Toit (Chief Executive Officer: Cape West Coast Biosphere Reserve) on 9 May 2012.

REFERENCES

- Blewit, J. 2008. *Understanding Sustainable Development*. London: Earthscan.
- Borrini-Feyerabend, G., Pimbert, M., Farvar, T., Kothari, A. and Renard, R. 2004. Sharing power: learning-by-doing in co-management of natural resources throughout the world.
- Cenasta, Tehran: The Natural Resource Group and Sustainable Agriculture and Rural Livelihoods Programme for the International Institute for Environment and Development (IIED) and the Collaborative Management Working Group (CMWG) of the IUCN Commission on Environmental, Economic and Social Policy (CEESP) of the World Conservation Union (IUCN).

- Carley, M. and Christie, I. 2000. *Managing sustainable development*. 2nd edition. London: Earthscan.
- CAPE. 2012. Cape Action for People and Environment [Online] Available at: <http://www.capeaction.org.za/index.php?C=land&P=2> (Accessed 4 May 2012).
- Cape West Coast Biosphere. 2012. [Online] Available at: <http://www.capebiosphere.co.za> (Accessed 4 May 2012).
- Du Toit, J. 2012. CEO Cape West Coast Biosphere Reserve. Personal interview on 9 May 2012.
- Gray, B. 2007. The process of partnership construction: anticipating obstacles and enhancing the likelihood of successful partnerships for sustainable development. In Glasbergen, P., Biermann, F. and Mol, A.P.J. (eds.) *Partnerships, Governance and Sustainable Development*, 29–48. Cheltenham, UK: Edward Elgar.
- Hara, M. 2003. Co-management of natural resources: theory and the attendant assumptions. In Hauck, S. and Sowman, M. (eds.) *Waves of change—coastal and fisheries co-management in South Africa*, 13–36. Cape Town: University of Cape Town Press.
- Margerum, R.D. 2008. A typology of collaboration efforts in environmental management. *Environmental Management*, 41:487–500.
- Margerum, R.D. 2011. *Beyond Consensus – Improving Collaborative Planning and Management*. Cambridge, Massachusetts: The MIT Press.
- Müller, K. 2007a. A Framework for Assessing Environmental Governance Structures. *Journal of Public Administration*, 42(1):18–32.
- Müller, K. 2007b. Organisational innovation: some emerging environmental governance models in South Africa. *Politeia*, 26(1):45–59.
- Müller, K. 2008. Assessing cooperative environmental governance systems: the cases of the Kogelberg Biosphere Reserve and the Olifants-Doorn Catchment management Agency. *Politeia*, 27(1):86–104.
- Müller, K. and Enright, W. 2009. Multi-Stakeholder Processes towards establishing Water Catchment Agencies in South Africa – A Case Study. *Administratio Publica*, 17(1):112–130.
- Müller, K. 2010. Creating public value through collaborative environmental governance *Administratio Publica*, 18(4):141–154.
- Pahl-Wostl, C., Craps, M., Dewulf, A., Mostert, E., Tabara, D. and Taillieu, T. 2007. Social Learning and Water Resources Management. *Ecology and Society*. 12(2):5. [Online] Available at: <http://www.ecologyandsociety.org/vol12/iss2/art5/> (Accessed 3 June 2012).
- Schusler, T.M., Decker, D.J. and Pfeffer, M.J. 2003. Social Learning for Collaborative Natural Resources Management. *Society and Natural Resources*, 15:309–326.
- United Nations Educational Scientific and Cultural Organization (UNESCO) [Online] Available at: <http://www.unesco.org/mabdb/br/brdir/directory/biores.asp?code=SAF+02&mode=all> (Accessed on 4 May 2012).
- Wondolleck, J.M. and Yaffee, S.L. 2000. *Making Collaboration Work – Lessons from Innovation in Natural Resources Management*. Washington, D.C.: Island Press.