

Integrating governance and socioeconomic indicators to assess the performance of community-based natural resources management in Caprivi (Namibia)

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THEMATIC SECTION
Community-based natural resource management (CBNRM): designing the next generation (Part 2)

SUMMARY

The achievements of community-based natural resources management (CBNRM) in southern Africa over the past 20 years have been hampered by the struggle to develop institutions of good governance. This paper explores what good governance is, how it can be measured and why it is relevant to communities' socioeconomic development goals. Horizontal accountability, used as a proxy for good governance, and people's perception of CBNRM benefits were documented through 236 individual interviews in five conservancies in the Caprivi Province (Namibia). These complex concepts were captured in order to strengthen performance assessments of CBNRM. Horizontal accountability was weak across the five conservancies studied and conservancy leaders could transfer more information to their constituents. Smaller and older conservancies displayed higher rates of information transfer, but horizontal accountability was not linked to different levels of socioeconomic benefits. In order to properly study the potential connections between good governance and the provision of socioeconomic benefits within CBNRM, the measures used in this study require further refinement.

Keywords: community-based natural resources management, governance, Namibia, socioeconomic development

INTRODUCTION

Following two decades of implementation, community-based natural resources management (CBNRM) faces the challenge of establishing institutions that practise good governance over the management of common property resources (Corbett & Jones 2000; Campbell & Shackleton 2001; Turner 2004). Decentralization characterized by lack of downward accountability has been cited as a hindrance to CBNRM in

sub-Saharan Africa (Child & Dalal-Clayton 2004; Jones & Murphree 2004; Murphree 2004). Simultaneously, despite generating income from high value wildlife resources and tourism, CBNRM has fallen short of delivering household benefits to local communities (Bandyopadhyay *et al.* 2004; Balint & Mashinya 2006; Musumali *et al.* 2007). We contend that local communities with better CBNRM governance will see greater social and economic returns. However, to date, CBNRM assessments have been hampered by the inadequacy of measures to assess good governance and by a lack of studies relating them to socioeconomic improvements.

CBNRM was implemented as early as the 1960s in Zimbabwe and Namibia, where private landowners received rights to manage and derive benefits from wildlife on their land (Jones & Murphree 2001). Subsequently, a similar devolution of wildlife rights was granted to communities on communally-held lands. In Namibia, the Nature Conservation Amendment Act of 1996 (Government of Namibia 1996) established conservancies as communal land areas with set boundaries and within which local people are granted partial and conditional benefits from wildlife (NACSO [Namibian Association of Community Based Natural Resource Management Support Organizations] 2006). They are considered a prime mechanism to foster environmentally friendly local economic development and to strengthen community management capacity in communal areas (Long 2001). Established through democratic processes, conservancies strive to achieve good governance with accountable leadership structures that ensure that their constituents receive benefits.

Good governance is based on participatory and democratic traditions, promoting equity, equality, gender balance, the synthesis of diverse perspectives, the mobilization of resources for social purposes and, finally, the rule of law (Rhodes 2000). The lack of accountability by community leaders to their constituents is considered as a major hindrance to good governance in CBNRM programmes across southern Africa (Campbell & Shackleton 2001; IUCN [International Union for Conservation of Nature] 2006). Upward accountability from local leaders to the Government department has been more successful in terms of meeting various Government requirements such as membership formation, constitution

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development and some financial obligations (NACSO 2004). At the micro level, however, the mechanisms that reinforce accountability within the community institutions are weak. In addition, ways of measuring the performance of these micro level CBNRM institutions are not available.

Accountability has 'vertical' and 'horizontal' forms (O'Donnell 1994). Vertical accountability is the relationship between unequals; it refers to a powerful 'superior' actor holding a less powerful inferior actor accountable. In CBNRM, this relationship is exhibited between government (for example wildlife departments) and the local communities. Horizontal accountability, however, describes a relationship between equals; it refers to somebody holding someone else of roughly equal power accountable, and is a key element of good governance. Schedler (1999) conceptualized accountability as the means of constraining power. Accountability has basic connotations of 'answerability' and enforcement. Answerability is the obligation of public officials to inform about and explain their actions. Enforcement is the capacity of accounting agencies to impose sanctions on power holders who have violated their public duties. For the purpose of measuring horizontal accountability in CBNRM, this study focuses on answerability. In CBNRM, answerability is manifested as the ability of local leaders to transfer information to their constituents. Schedler (1999) argued that answerability is achieved through members of a group having the right to information and the corresponding obligation of local leaders to release the necessary information. In CBNRM communities, elected leaders should provide information on financial, operational, and administrative matters and natural resources on a frequent and transparent basis to their constituents, but such information transfer is often lacking or asymmetrical.

Within CBNRM, horizontal accountability should foster an environment for ensuring that social and economic benefits reach all members of a community. These benefits differ from location to location. For the purpose of this study, we restricted our assessment to a subset of benefits that we knew had been provided to varying degrees by one or more conservancies in the Caprivi province. These included cash dividends, game meat distribution, employment opportunities, community project funding, educational support and other in-kind benefits (such as transport or cell phone charging).

We present results from a study measuring governance and socioeconomic indicators in five CBNRM communities in Namibia. The research was largely exploratory and stakeholder driven to determine which variables should be considered, with a strong emphasis on how this could realistically be incorporated into community based monitoring systems (so that it lives beyond the presence of university-trained researchers). Specifically, we sought to explore if and how good governance could be measured within CBNRM programmes through a focus on horizontal accountability. We focus on financial data (annual budgets, source and amount of income; how money was spent; income from campsites and

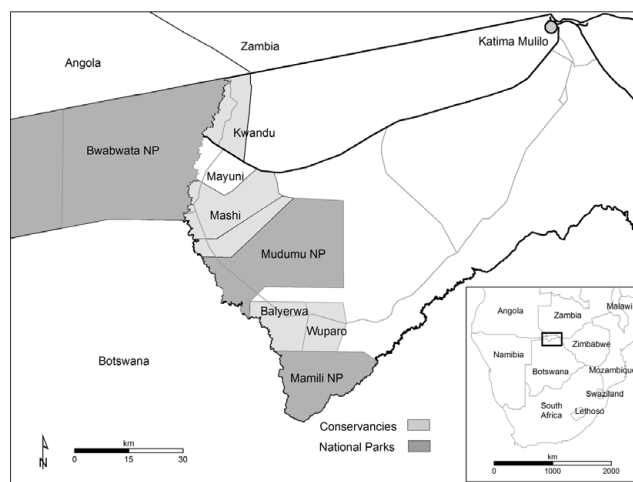


Figure 1 Map indicating the location of the study sites.

lodges) and natural resource data (hunting quotas; number of animals shot on license; prices of animals; trends in rare and endangered species). We argue that availability of information in CBNRM communities should lead to accountable leaders and explore whether this element of good governance was linked to the provision of socioeconomic benefits for community members in the present case.

METHODS

Study site

The study was conducted in five conservancies west of Katima Mulilo, close to the Kwandu river in the Caprivi province of Namibia (Fig. 1). This area is part of the Kavango Zambezi Transfrontier Conservation Area, which spans into neighbouring Angola, Botswana and Zambia. Specifically, we worked in Mashi, Kwandu, Mayuni, Wuparo and Balyerwa conservancies, the first three of which were gazetted in 1999 and the last two in 2003 and 2006, respectively. Mayuni, Kwandu and parts of Mashi conservancies are located along the tar road that connects the provincial capital of Katima Mulilo (110 km away), and closest significant market, to the rest of the country. Starting in Mayuni, a dirt road loops back south-east to Katima Mulilo.

Precipitation in the area ranges from 600 to 700 mm per year, but is subject to extreme seasonal as well as annual variation that can lead to extensive floods followed by long droughts. The banks of the Kwandu river are characterized by extensive flood plains, interspersed by Terminalia and Mopane woodlands and grasslands. Inland, the soils range from sandy and infertile to clay and more fertile ground. Much of the interior is bush and grassland and serves as a wildlife corridor (National Planning Commission 2006). Wildlife populations and diversity in the area have been improving since the 1970s, including elephants, various antelope species, felines, hippos and warthogs (Weaver & Skyer 2003).

Data collection

In each conservancy, local research assistants were selected from a pool of bilingual (English/local language) residents who had at least an 11th grade education. Each of them received additional training to conduct individual interviews using structured questionnaires (Appendix 1, see supplementary material at Journals.cambridge.org/ENC). The research assistants translated the questionnaire orally during the interviews into a local language (mainly Sifwe, Yeyi or Mbukushu), unless respondents were fluent in English. The questionnaire included indicators of community governance performance, such as participation, decision making, attitudes towards leaders and accountability, as well as indicators of socioeconomic benefits provided by the conservancy, such as whether respondents had received benefits or whether community projects had been implemented by the conservancy. A total of 236 individuals were randomly selected in Mashi ($n_M = 32$), Mayuni ($n_{My} = 46$), Kwandu ($n_K = 37$), Balyerwa ($n_B = 52$) and Wuparo ($n_W = 69$). In the absence of formal sampling frames, such as established village census lists, we selected the sample participants using geographical stratification along village paths and maximizing the between-group variance by age and gender (Bernard 2002).

Indices for governance and socioeconomic data

To get an overall measure of good governance and of socioeconomic performance, we developed two aggregate indices. Complex latent concepts cannot be measured through direct observations and are best estimated by combining multiple indicators (Bernard 2002; DeVellis 2003). In our case, we selected the indicators following discussions with local stakeholders and experts. We confirmed that these indicators measured a similar concept by calculating Cronbach alphas as a measure of the indices' internal consistency (Bernard 2002). We grouped indicators into their respective index, following a simple averaging procedure, such as that used for the Index of Economic Freedom or CIFOR [Centre for International Forestry Research]'s well-being index (Cahyat *et al.* 2007; Miller *et al.* 2010). This approach assumes equal weighting for all indicators, which we adopted because of the ease of implementation and potential replication within community-based monitoring schemes and the absence of additional data to determine appropriate weights.

For governance, the index consisted of seven items, including four on information about financial resources and three on information about natural resources. Each item assessed whether the respondents had received information about the subject in question from conservancy leaders (for example 'Have you been given information on the conservancy budget in the past 12 months?'). Items were coded as 1 for having received some information, and 0 for having received no information. We averaged the scores of these seven items and normalized it on a 0–100 scale to generate an information transfer index (ITI), as a proxy of horizontal

accountability. This index had a Cronbach alpha of 0.79, suggesting strong internal validity. We also calculated sub-indices for 'information on natural resources' and 'information on financial resources' by averaging their respective items, and normalizing the result to a 0–100 scale.

We followed a similar procedure to generate a socioeconomic achievements index (SAI) on a scale from 0 to 100, averaging binary responses from a set of six items (1 for having received the benefit in question, 0 for not having received it). The SAI had a Cronbach alpha of 0.83, suggesting strong internal validity. These six items captured multiple dimensions of socioeconomic benefits that could be provided by the conservancy, such as provision of cash, meat or educational services. These items reflect the respondents' perceptions of whether they received these benefits within the previous 12 months rather than actual distribution of benefits as may be recorded by conservancy officers.

The data gathered for both the horizontal accountability and the socioeconomic measures, were analysed using SPSS 13 and STATA software. Analysis included crosstabs, ANOVA and t-tests to compare means and Pearson correlations.

RESULTS

The highest performance scores in terms of information transfer, used as a proxy for horizontal accountability, were for Mayuni and Wuparo conservancies (Table 1), followed by Balyerwa and Kwandu conservancies, and finally Mashi conservancy (ANOVA $F = 2.68$; $p < 0.05$). Considering the sub-index on the transfer of financial information, the conservancies are ranked in decreasing order from a top group consisting of Mayuni, Balyerwa and Wuparo conservancies, followed by Kwandu and Mashi conservancies (ANOVA $F = 4.36$; $p < 0.05$). A different ordering is observed for the sub-index on the transfer of natural resources information: Mayuni, Wuparo and Kwandu formed the top group and Balyerwa and Mashi the bottom group (ANOVA $F = 2.70$; $p < 0.05$).

Except for Kwandu conservancy, the transfer of financial information index was higher than the transfer of natural resources information index ($t = 7.43, 4.78, 2.44, 4.17$ for Balyerwa, Mayuni, Mashi and Wuparo respectively; $p < 0.05$). Within the financial information category, budget information transfer and information on how money was spent by the conservancy scored the highest when compared to the transfer of other kinds of information. Within the natural resources information, the trends of community escort guides were the least well known of the three kinds of information.

In terms of the socioeconomic performance scores of the five conservancies (Table 2), Wuparo, Mashi and Balyerwa conservancies formed the highest ranking group, and Mayuni and Kwandu the lower ranking group (ANOVA $F = 42.02$, $p < 0.05$). The most commonly provided benefits were cash, game meat (from trophy hunters) and communal projects.

Pearson correlations indicated a positive relationship between the provision of benefits (SAI) and horizontal

Table 1 Measurement of horizontal accountability for each conservancy, using information transfer as a proxy. Means for financial data, natural data and ITI are reported on a 0–100 scale. Other means range between 0–1. Data from individual interviews.

Information	Mashi		Mayuni		Kwandu		Balyerwa		Wuparo		Total	
	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n
Financial data	32.03	32	53.08	46	30.59	37	52.67	52	49.28	69	45.50	236
Have you received information on:												
The budget	0.41	32	0.54	46	0.49	37	0.58	52	0.67	69	0.56	236
Price of wildlife sold to hunter	0.19	32	0.36	44	0.34	35	0.33	51	0.39	69	0.34	231
How money was spent	0.41	32	0.63	46	0.27	37	0.62	52	0.72	68	0.57	235
Joint venture and lodge income	0.28	32	0.59	46	0.11	35	0.58	52	0.12	50	0.35	246
Natural data	19.79	32	36.41	46	34.36	37	21.49	52	35.65	69	30.32	236
Have you received information on:												
Numbers of animals shot	0.31	32	0.39	46	0.27	37	0.06	52	0.55	69	0.33	236
Trends in problem animals	0.22	32	0.40	43	0.37	35	0.45	51	0.38	68	0.38	229
Trends of community game guards	0.06	32	0.30	46	0.40	35	0.14	51	0.13	67	0.20	231
Information transfer index (ITI)	26.79	32	45.03	46	32.20	37	39.31	52	43.44	69	38.99	236

Table 2 Measurement of socioeconomic performance for each conservancy, using the perception of benefit receipt as a proxy. Means for SAI are reported on a 0–100 scale. Other means are in the range 0–1. Data from individual interviews.

Benefits received	Mashi		Mayuni		Kwandu		Balyerwa		Wuparo		Total	
	mean	n	mean	n	mean	n	mean	n	mean	n	mean	n
Cash	0.61	31	0.28	46	0.08	37	0.66	50	0.75	63	0.55	227
Meat	0.80	30	0.00	46	0.00	37	0.18	49	0.87	63	0.39	225
Employment	0.25	24	0.00	46	0.00	37	0.31	51	0.29	58	0.18	216
Project	0.61	31	0.00	45	0.00	36	0.66	50	0.75	63	0.48	225
Education	0.09	22	0.00	45	0.00	36	0.22	51	0.28	57	0.14	211
In-kind	0.13	23	0.00	46	0.00	36	0.12	50	0.14	56	0.08	211
Socioeconomic achievement index (SAI)	44.10	31	4.98	46	1.33	37	36.17	51	56.62	64	31.06	229

accountability (ITI) ($r = 0.30$; $p < 0.05$). This positive correlation held true for Balyerwa, Mashi and Wuparo conservancies ($r = 0.51$, $r = 0.35$ and $r = 0.59$, respectively; $p < 0.05$).

DISCUSSION

Standardized systems for measuring the effectiveness, legitimacy and performance of community governance have not yet been developed for CBNRM (Armitage 2005). Furthermore, systems for assessing how well CBNRM programs are serving the needs and aspirations of their constituency are also lacking (Turner 2004). The development of the indices presented here is one mechanism to start addressing these gaps. Our work suggests that horizontal accountability can be implemented for systematic and comparable measurements, which lays the foundation for future refinements and broader measures of good governance.

We note that all conservancies are rated poorly for horizontal accountability which means conservancy leaders are not doing an effective job at transferring information to their constituents. The horizontal accountability index we developed suggests that Mayuni and Wuparo conservancies had a higher level of information transfer and thus may

have been more accountable than the other conservancies. Furthermore, information transfer of financial data was better than for natural resources, indicating that conservancies were less accountable on the latter than the former.

The differences in horizontal accountability between conservancies are attributable to a number of causes. The size and spatial distribution of a conservancy population has a potential influence over the effectiveness of information transfer efforts. Mayuni and Wuparo are relatively small, with populations of 2000–2400 people over approximately 150 km², as opposed to Mashi's 3900 people over 297 km² (NACSO 2006). It is likely easier to organize meetings with higher attendance, or to generally distribute information even informally, with a smaller number of people and within a smaller area. Another factor at play may be the age of the conservancy. Again, Mayuni and Wuparo are older and therefore may have implemented the process of information transfer slightly better than younger conservancies.

Information is power, and deciding who to inform, when and about what can be subject to local politics (Schedler 1999; Stewart 2005). In Namibia, traditional leaders are vested with official authority and strongly influence decisions, especially at local scales (Rice 1997). In the Caprivi province, the situation is complex because the population is split in its

allegiance to multiple traditional authorities. The residents of some conservancies, such as Wuparo, almost exclusively recognize a single Chief, but in other conservancies, significant portions of the population may recognize two different Chiefs (Rice 1997). For instance, Mashi conservancy includes villages linked predominantly to one Chief, as well as villages predominantly linked to another Chief. In many respects, Mashi conservancy officers have successfully incorporated both traditional authorities in their management structures. However, just as in any other local political landscapes, differences and tensions are likely to arise among individual supporters in the general population. Such issues can influence information transfer.

The population, spatial and leadership characteristics of conservancies however do not explain why the financial information transfer sub-indices are higher than the natural information transfer sub-indices. To explain such differences, we consider the challenge of distinguishing perception from reality. Our data were collected from conservancy residents rather than its leaders, thus revealing residents perceptions about the types of information received, rather than whether conservancy leaders actually took steps to distribute information. It is possible that the conservancy distributed information either in written reports or at general meetings, but that people failed to receive, or failed to remember receiving, that information.

Conservancies are supposed to organize annual general meetings (AGMs) at which they discuss a wide range of issues, usually reporting on past achievements, and plan ahead for the future (NACSO 2007). These meetings are open to the community at large, but in practice, attendance may be limited. The venue may be located too far away from some villages, especially in large conservancies, and transport is usually insufficient. Attending a meeting has an opportunity cost that some people may deem too high. Meetings tend to be long, and people may not stay the whole time, or may not pay attention the whole time. Furthermore, meeting agendas tend to be over packed and some items may not be covered. All these factors may have hindered the transfer of information in this case. The higher transfer of financial information may indicate that information on natural resources was not as high a priority for both conservancy members and leaders and that the focus was more on informing people about finances.

The distinction between perception and reality is also important when interpreting the socioeconomic achievements. Meat was being distributed as part of joint venture agreements between conservancies and safari hunting operators, and was the most common benefit perceived by residents of Mashi and Wuparo conservancies. In Balyerwa, the most common benefits were the distribution of cash and the organization of community projects. These were also common in Mashi and Wuparo conservancies. Employment benefits were listed as fourth except in Kwandu and Mayuni conservancies, where the perception of employment benefits seemed more limited. We expected Mayuni residents to perceive stronger employment benefits because it has two

tourism lodges and a campsite, while Kwandu has only one campsite. However, at the time of the survey, local residents were disgruntled about the benefits provision by the conservancy, partly owing to a lack of communication from the Mayuni leadership, which had not held an annual general meeting for almost three years. The provision of educational support or other in-kind benefits was minor.

Our data shows that similarly to governance performance, all conservancies appeared still to have scope for improving the distribution of benefits. Out of a maximum score of 100, all conservancies achieved less than 50, with Kwandu and Mayuni being particularly low. In socioeconomic terms Kwandu residents seemed to benefit the least of all conservancies. Interestingly Kwandu's horizontal accountability, relative to the other conservancies was in the mid range. We also observed that Wuparo had the highest socioeconomic performance score, and a fairly high horizontal accountability index score. Mayuni conversely had the highest horizontal accountability level, but one of the poorest records of socioeconomic achievements. Overall, the ordered ranking of conservancies according to their horizontal accountability did not seem to match their socioeconomic performance ranking.

Our hypothesis was that increased horizontal accountability within CBNRM projects should lead to the provision of socioeconomic benefits. However, the present findings do not support this claim. In the context of this study, we approximated horizontal accountability using the concept of answerability as the single proxy. Our study shows no strong evidence of a connection between answerability and the provision of socioeconomic benefits. However, our results were encouraging in that they showed that answerability could be documented, and can thus be included, along with additional indicators, in a subsequent measure of horizontal accountability.

Another important factor to consider in terms of the extent of socioeconomic benefits is how resource rich (in terms of wildlife and tourism operations) a conservancy is. This would affect the amount of revenue different conservancies would be able to earn and use to provide benefits for their constituents. A future study would thus consider the issue of resources available to each conservancy. Good governance alone may not be sufficient to provide substantial benefits and set conservancies on a self-reliant development path. That goal is also partially constrained by the local availability of natural, human, financial and infrastructural capital. Any future work may also need to consider the level of enforcement mechanisms.

CONCLUSIONS

Using accountability as a measure of good governance, this study is a first step to explore if good governance in CBNRM fosters socioeconomic development. Good governance however, can be measured using other indicators such as participation, membership, tenure rights and competition. Similarly, we reduced socioeconomic development to the perception of benefit provisions. It is probable that more

complete, but also more complex, indices would provide a stronger assessment of CBNRM governance and its relationship to socioeconomic impacts in a way that matters to communities.

In southern Africa, CBNRM is at a crossroads and, after two decades of implementation, the CBNRM community is questioning how this programme could evolve innovatively. Understanding what good governance is and what impacts it has, is very important. The first stage of CBNRM implementation in southern Africa had a strong focus on management and the provision of economic benefits, with little or no emphasis on building strong local institutions that would ensure these goals are sustainably undertaken. Top-down management, mostly from government officials was common, and local governance was a secondary aspect of CBNRM. As this programme evolves into a new phase, it has become increasingly important to focus on understanding what CBNRM governance is, and how it functions.

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References

- Armitage, D. (2005) Adaptive capacity and community-based natural resource management. *Environmental Management* 35 (6): 703–15.
- Balint, P. & Mashinya, J. (2006) The decline of a model community-based conservation project: governance, capacity, and devolution in Mahenye, Zimbabwe. *Geoforum* 37: 805–815.
- Bandyopadhyay, S., Shyamsundar, P., Wang, L. & Humavindu, M. (2004) Do households gain from community-based natural resource management? An evaluation of community conservancies in Namibia. DEA Research Discussion Paper 68. Ministry of the Environment, Directorate of Environmental Affairs, Windhoek, Namibia.
- Bernard, R. (2002) *Research Methods in Anthropology: Qualitative and Quantitative Approaches*. Third edition. Walnut Creek, CA, USA: Altamira Press.
- Cahyat, A., Gonner, C. & Haug, M. (2007) *Assessing Household Poverty and wellbeing: A Manual With Examples from Kutai Barat, Indonesia*. Bogor, Indonesia: Center for International Forestry Research.
- Campbell, B. & Shackleton, S. (2001) The organizational structures for community-based natural resource management in Southern Africa. *African Studies Quarterly* 5 (3) [www document]. URL <http://web.africa.ufl.edu/asq/v5/v5i3a6.htm>
- Child, B. & Dalal-Clayton, B. (2004) Transforming approaches to CBNRM: learning from the Luangwa experience in Zambia. In: *Getting Biodiversity Projects to Work: Towards more Effective Conservation and Development*, ed. T.O. McShane & M.P. Wells, pp. 256–89. New York, NY, USA: Columbia University Press.
- Corbett, A. & Jones, B. (2000) *The Legal Aspects of Governance in CBNRM in Namibia*. Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism.
- DeVellis, R. (2003) *Scale Development: Theory and Applications*. Thousand Oaks, CA, USA: Sage Publications.
- Government of Namibia (1996) Nature conservation amendment act, 1996. Government Gazette of the Republic of Namibia, issue 1333, 17 June 1996.
- IUCN (2006) Towards Vision 2016: CBNRM's Potential to Contribute and CBNRM Status Report 2006. IUCN CBNRM Support Programme, UNDP / GoB Environment Support Programme, USAID [www document]. URL <http://www.cbnrm.bw/publications/Proceedings%20of%20the%204th%20National%20CBNRM%20Conference%20and%20CBNRM%20Status%20Report.pdf>
- Jones, B. & Murphree, M. (2001) The evolution of policy on community conservation in Namibia and Zimbabwe. In: *African Wildlife and Livelihoods: The Promise and Performance of Community Conservation*, ed. D. Hulme & M. Murphree, pp. 38–58. Portsmouth, UK: Heinemann.
- Jones, B. & Murphree, M. (2004) Community-based natural resource management as a conservation mechanism: lessons and directions. In: *Parks in Transition: Biodiversity, Rural Development, and the Bottom Line*, ed. B. Child, pp. 63–103. London, UK: Earthscan.
- Long, S.A. (2001) Disentangling benefits livelihoods, natural resource management and managing revenue from tourism: the experience of Torra conservancy, Namibia. In: *Wildlife Integration for Livelihood Diversification (WILD) Project Working Paper 3*. Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism [www document]. URL www.met.gov.na/programmes/wild/WILDworkingpapers1-5/WP%203%20-%20Disentangling%20Benefits.pdf
- Miller, T., Holmes, K., Kim, A., Markheim, D., Roberts, J. & Walsh, C. (2010) *2010 Index of Economic Freedom*. Washington, DC, USA & New York, NY, USA: The Heritage Foundation & the Wall Street Journal.
- Murphree, M. (2004) Communal approaches to natural resource management in Africa: from whence and to where? *Journal of International Wildlife Law and Policy* 7: 203–16.
- Musumali, M., Larsen, T. & Kaltenborn, B. (2007) An impasse in community based natural resource management implementation the case of Zambia and Botswana. *Oryx* 41 (3): 306–313.
- NACSO (2004) *Namibia's Communal Conservancies: A Review of Progress and Challenges in 2003*. Windhoek, Namibia: NACSO.
- NACSO (2006) *Namibia's Communal Conservancies: A Review of Progress and Challenges in 2005*. Windhoek, Namibia: NACSO.
- NACSO (2007) *Namibia's Communal Conservancies: A Review of Progress and Challenges in 2006*. Windhoek, Namibia: NACSO.
- National Planning Commission (2006) *Caprivi Regional Poverty Profile*. Windhoek, Namibia: Government of Namibia.
- O'Donell, G. (1994) Delegative democracy. *Journal of Democracy* 5 (1): 55–69.

- Rhodes, R.A. (2000) Governance and public administration. In: *Debating Governance*, ed. J. Pierre, pp. 2–12. Oxford, UK: Oxford University Press.
- Rice, M. (1997) Community-based natural resource management project in the Caprivi Region of Namibia. Unpublished report, University of Florida, Cape Town, South Africa.
- Schedler, A. (1999) Conceptualizing accountability. In: *The Self-Restraining State: Power Accountability in New Democracies*, ed. A. Schedler, L. Diamond & M.F. Plattner, pp. 13–28. London, UK: Lynne Rienner Publishers.
- Stewart, J.D. (2005) The role of information in public accountability. In: *Governance and the Public Sector*, ed. R. Hodges, pp. 13–34. Cornwall, UK: Edward Elgar Publishing Limited.
- Turner, S. (2004) A crisis in CBNRM? Affirming the commons in southern Africa. Unpublished. International Association for the Study of Common Property conference in Oaxaca, Mexico [www document]. URL http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/1313/Turner_Crisis_040508_Paper361.pdf?sequence=1
- Weaver, C. & Skyer, P. (2003) Conservancies: integrating wildlife land-use options into the livelihood, development and conservation strategies of Namibian communities. Paper presented at The Vth World Parks Congress To The Animal Health And Development (AHEAD) Forum. September 8–17, 2003 in Durban, Republic of South Africa [www document]. URL http://www.usaid.gov/na/pdfdocs/WPCAHEAD_2.pdf