

Available online at www.sciencedirect.com





Physics and Chemistry of the Earth 31 (2006) 659-668

www.elsevier.com/locate/pce

Access to water and related resources in Ngamiland, Botswana: Toward a more critical perspective and sustainable approach

Phemo K. Kgomotso^{a,*}, Larry A. Swatuk^b

^a IWRM Programme, Faculty of Science, University of Western Cape, Bellville, Private Bag X17, South Africa ^b University of Botswana, Harry Oppenheimer Okavango Research Centre, Private Bag 285, Maun, Botswana

Accepted 10 July 2006

Abstract

Governance structures in Botswana are highly centralized and top-down in orientation. For water and related resources management in rural areas, this creates particular difficulties – from lack of decision-making capacity to limited human and financial capital at the level of the resource base. In Ngamiland, government is currently undertaking the Okavango Delta Management Plan project as part of its commitment to the Ramsar Convention on Wetlands. The project purports to develop an integrated management plan based on an ecosystems approach. Meaningful participation by local people is a requirement of the process. Data from 43 village meetings undertaken under the auspices of the ODMP process reveal that local people's access to their resource base is diminishing. Information from key informant interviews and a variety of government documents, however, suggests that policy makers are either unaware of or uninterested in this growing problem. Although citizens and government are engaged in an on-going dialogue, there is little evidence to suggest that policy and practice are moving toward sustainable solutions for all. This article highlights these issues in the hope that a more meaningful dialogue among all stakeholders may be undertaken.

© 2006 Elsevier Ltd. All rights reserved.

Keywords: Okavango River Basin; Ngamiland; Governance; Sustainable resource use; Integrated water resources management; Access; Livelihoods

1. Introduction

Access constitutes a key indicator of state commitment to integrated water resources management (IWRM) (Beukman, 2002). For Van der Zaag (2005), IWRM involves 'reconciling basic human needs, ensuring access and equity, with economic development and the imperative of ecological integrity, while respecting transboundary commitments'. The focus of this article is the complexity in providing access to water and related resources to multiple, highly differentiated stakeholders in a physically remote but increasingly politically important area of rural Botswana. Ngamiland is home to approximately 7% of Botswana's entire population. The vast majority of these people are either wholly or partially dependent on direct use of the natural resource base for their livelihoods. Settlement patterns and human activities reflect the dramatic variations of an arid environment with a significant source of perennial, seasonal and ephemeral water – the Lower Okavango River Basin.

The Okavango River rises as the Cuito and Cubango Rivers in the mountains of Angola, passes through Namibia and empties inland as the Okavango Delta in Botswana (Mendelsohn and el Obeid, 2004). The size of the delta varies dramatically from year to year, depending primarily on rainfall in Angola. The delta is the focal point of Botswana's tourism industry, a fast growing sector that is now the second largest contributor to gross domestic product (GDP) in the country. Due to a variety of internal (rapid population growth; land use conflicts; resource degradation) and external (real and prospective development plans

^{*} Corresponding author. Address: Private Bag 285, Maun, Botswana. Tel.: +267 72192123.

E-mail addresses: phemok@yahoo.com (P.K. Kgomotso), swatukla@ mopipi.ub.bw (L.A. Swatuk).

^{1474-7065/\$ -} see front matter @ 2006 Elsevier Ltd. All rights reserved. doi:10.1016/j.pce.2006.07.004

in the upstream riparian states, Namibia and Angola) factors, the government of Botswana declared the entire Lower Okavango Basin (68,640 km²) a wetland of international importance and became a party to the Ramsar Convention in April 1997 (Swatuk, 2003). As a party to the Convention, the government of Botswana, with international support, initiated the Okavango Panhandle and Okavango Delta Management Plan processes. Two key conditions of the process impact current and will influence future resource access, use and management practices: (1) an integrated and holistic ecosystem approach is to be adopted regarding development and management of the resource base; and (2) 'primary stakeholders', defined as those people dependent for all or a significant part of their livelihood on the resources of the area, must be involved in a significant way in all planned activities. In addition, their key livelihood interests should be held above the interests of others less dependent on the resource base (ODMP, 2005).

Perhaps unexpectedly, the ODMP process has revealed a deep contradiction in Botswana's water resources management plans and performance. On the one hand, available data shows that countrywide the proportion of the population without access to safe drinking water – a key MDG indicator – is 12.1% (CSO, 2001), an excellent record for a developing country. On the other hand, the ODMP stakeholder consultation process reveals a disturbing picture of heightened levels of resource use conflict and declining access to water and related resources among primary stakeholders in Ngamiland.

As shown below, the present centralized, top-down institutional matrix impedes realization of IWRM principles and practices. A close analysis of primary stakeholder issues reveals the need for planning at basin level or, in the case of the transboundary Okavango River, at subbasin level (the Lower Okavango Basin (LOB)) with a clear view of management practices and developmental intentions upstream in Namibia and Angola. The concerns articulated by stakeholders living within the LOB demonstrate the importance of devising policy within the unique parameters set by the river and its ecosystems. However, standard government responses to the issues raised by people living within the LOB – as revealed in village meetings (known as kgotla) and key informant interviews – show what amount to as missed or ignored opportunities for moving toward IWRM in the study area. This article highlights these issues with the intent to promote further dialogue toward more holistic and sustainable resource use in Botswana.

2. Methodology

The analysis employs an interpretative social scientific research method (Terre Blanche and Kelly, 2001). 'Interpretive research... relies on first hand accounts, tries to describe what it sees in rich detail and presents its "findings" in engaging and sometimes evocative language' (Kelly, 2001) The purpose of our interpretive analysis is to provide 'thick description' so as to better understand problems with sustainable water resources management in the study area.

In order to achieve 'exhaustion/saturation' in data gathering and analysis, a triangulation strategy was employed (Kelly, 2001). Triangulation was employed in five different ways: data triangulation; investigator triangulation; theory triangulation; methodological triangulation; and interdisciplinary triangulation.

Data was collected from different sources over time. Residence in the study area provides a participant observer perspective. Primary data sources include formal semistructured interviews with key informants in each of the institutions involved in water management in the Lower Okavango Basin. These were recorded, transcribed, translated (where necessary) and written in English and coded according to relevant resource use themes. Several informal opportunistic interviews and discussions were also used. This is differentiated in the text below by the terms 'interview' (where it was formal and semi-structured) and 'personal communication' (where it was opportunistic and perhaps only designed to gain clarification on a particular issue).

Analysis was undertaken of raw data on natural resource use issues in the study area. This data was collected from 43 village meetings (*kgotla*) held between 31 January 2005 and 12 May 2005 as part of the Okavango Delta Management Plan (ODMP) project process. Approximately 18% of Ngamiland residents attended these meetings. The percentage of population attending *kgotla* varied inversely with village size with less than 0.3% of people in major villages (i.e. Maun and Gumare) attending. While this seems to suggest that our research findings are exploratory rather than definitive, the similarity of issues and concerns across all 43 cases leads us to believe that the study achieves theoretical saturation (Kelly, 2001).

The data was compiled in two unpublished documents. Bendsen (2005a) presents the unanalysed transcripts from the *kgotla* meetings. Bendsen (2005b) breaks down the transcripts according to key component areas (12 in all) of the ODMP project. These transcripts were read and key-word coded. Recurrent themes, such as declining access to fishing grounds or slow processing of land claims, helped structure subsequent key informant interviews. Despite the high quality of the raw data, we did not attend any of these meetings. However, similar meetings attended for other purposes (e.g. Wirbalauer et al., 2003; Swatuk and Rahm, 2004) show the transcribed data from Bendsen (2005a) to be consistent with expectations.

3. Structures of governance

In Botswana development planning in general, and water resources management in particular, are highly centralized (Swatuk and Rahm, 2004). The institutional matrix and mechanisms for delivery are designed to implement Download English Version:

https://daneshyari.com/en/article/4722160

Download Persian Version:

https://daneshyari.com/article/4722160

Daneshyari.com