

## CHAPTER 6

### **Kant and should: Strategic thoughts about ‘wise use’ of the Okavango delta system**

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#### **Abstract**

The Okavango River basin presents an excellent example of the problematique that is the core issue of this book – state sovereignty and the associated national interest – and the way in which transboundary rivers challenge these fundamental concepts. This chapter deals with the discourse of politics and policy-making, suggesting a new language about a new regionalism that is fuelled by new thinking. The major purpose of the book is to interrogate the contradictions between sovereignty and national interest, on the one hand, and the need to transcend these very issues with respect to the management of transboundary natural resources, like rivers, on the other. In short, the chapter is about pushing paradigms and challenging conventional wisdoms in the hope that the core debate within OKACOM may change from water-sharing to benefit-sharing.

#### **Introduction: Save the earth**

“The fact of diminishing nature and of human ubiquity is now obvious” (Yi fu-Tuan 1971).

“We have accustomed ourselves to think of ever expanding productive capacity, of ever fresh spaces of the world to be filled with people, of ever new discoveries of kinds and sources of raw materials, of continuous technical progress operating indefinitely to solve problems of supply. We have lived so long in what we have regarded as an expanding world, that we reject in our contemporary theories of economics and of population the realities which contradict our views. Yet our modern expansion has been effected in large measure at the cost of an actual and permanent impoverishment of the world” (Sauer 1938).

“Projects for change and progress need to be linked to the possibilities of society, national and international, as given. Fatalism in the face of the given is as unnecessary as speculation unhinged from practicality and real movement. We need, in Runciman’s judicious phrasing most pertinent to International Relations,

to distinguish the ‘improbably possible’ from the ‘probably impossible.’ This involves the double assertion – one intellectual, the other sociological: the intellectual revolves around a reassertion, chastened by history and critique alike, of the values associated with the Enlightenment; the sociological involves an assertion that, within the constraints of the contemporary world, and of that modernity which characterizes it, purposive action, linked to agency by individuals, movements and states alike, is possible” (Halliday 1999).

“In 1972, Hedley Bull wrote that ‘the sources of facile optimism and narrow moralism never dry up, and the lessons of the ‘realists’ have to be learnt afresh by every new generation’ ... If the academic study of international relations can find little save period-piece interest in the ideas of the classical realists, that is more a comment upon the competence of scholarship today than upon any change in world conditions” (Gray 1999).

Rio +10 has come and gone. Many things have been said, many papers signed, many promises made. Yet, the fact remains: the state of the global environment has never been worse, while debates about causes and cures have never been more heated. According to Gardner (2002:4) of World Watch Institute, “global environmental problems, from climate change to species extinctions, deforestation, and water scarcity, have generally worsened since delegates met in Rio.” The meeting in Johannesburg was supposed to be about agreement, timetables and implementation – about collective action taken toward solving this human-induced crisis. Instead, it was about turf wars, veiled threats, protecting vested interests, finger-pointing, back-peddling and no small degree of green-washing. It would serve well to reflect on these facts, for the global reflects the local and the local mirrors the global. Thus, in considering the peacemaking potential of the joint management of the Okavango Delta system as a Ramsar site, the myriad barriers to success thrown up by history, geography and contemporary (global, local and regional) sociopolitical economy should be acknowledged. To pretend that ‘success’ rests solely upon proper institutional forms and correct technical and scientific knowledge is fallacious. Clearly, these are important contributors to successful resource management. But they pale in comparison to the other factors highlighted.

In this chapter, both barriers and bridges to successful management of the Okavango Delta system are examined. A number of ideas are put forward of ways and means to achieve sustainable and wise use of the resources of the Okavango Delta. Before turning to these aspects, however, a brief background of Ramsar and related international conventions is presented in the context of liberal institutionalist and realist theories of politics. As suggested by the epigraphs above, while there can be no doubt that something must be done to stem environmental degradation, just what that something is varies directly with the prevailing world view.

## ‘Managing’ the situation: Ramsar and international conventions

Indicators of global environmental crisis are many and varied, but most involve some form of resource depletion – deforestation, desertification, soil erosion, species loss, habitat conversion – or the direct consequences of its use – global warming, acid rain, pollution. Among others, negotiations in Rio gave rise to several global conventions, for example, the Framework Convention on Climate Change (UNFCCC), the Convention to Combat Desertification (UNCCD), and the Convention on Biodiversity Preservation (UNCBD). It also created, among others, the Global Environmental Facility (GEF). Together, these conventions and institutions are intended to help in ‘managing’ the crisis – in the case of climate change, to set limits on use; in the case of both the biodiversity and desertification conventions, to reverse the loss.

The Ramsar Convention on Wetlands of International Importance, especially as waterfowl habitats preceded these perhaps more well-known conventions by more than 20 years. It is “the oldest of the four nature conservation treaties which include the World Heritage Convention, CITES and the Bonn Convention” (Njuguna 1992:9). Taking its name from the place – Ramsar in Iran – where the inaugural meeting was held in 1971, the Ramsar convention “provides the framework for international cooperation for the conservation of wetlands, the first and, so far, the only ecosystem type which has its own international treaty ... The parties to the convention agree to include wetland conservation in their national planning and to promote their sound utilisation, especially as habitat for waterbird” (CEP Factsheet 17, no date). According to Njuguna (1992:9), the United Nations Educational, Scientific and Cultural Organisation (UNESCO) serves as the depository of the convention of which the “Secretariat, or Bureau, is an independent body administered by the International Union for the Conservation of Nature (IUCN) and the International Waterfowl and Wetlands Research Bureau (IWRB). The convention has its headquarters in Gland, Switzerland.” Among countries in the Southern African Development Community (SADC), Botswana, Malawi, Namibia, South Africa and Zambia are parties to the convention.

Wetlands, particularly those more commonly defined – peatlands, bogs, fens and swamps – have had a particularly rough ride through history. Their conversion to other uses, and hence their destruction, extend in the European context at least as far back as the 11th century, with the negative environmental consequences of this being well-known almost from the beginning (Ponting 1991). According to Goude (1997:110-11): “On a global basis the loss of wetland habitats (marshes, bogs, swamps, fens, mires, etc.) is a cause of considerable concern ... In all, wetlands cover about 6 per cent of the earth’s surface (not far short of the total under tropical rainforest), and so they are far from being trivial, even though they tend to occur in relatively small patches. However, they also account for about one-quarter of

the earth's total net primary productivity, have a very diverse fauna and flora, and provide crucial wintering, breeding and refuge areas for wildlife. According to some sources, the world may have lost half of its wetlands since 1900, and the USA alone has lost 54 per cent of its original wetland area, primarily because of agricultural developments. There are, however, other threats, including drainage, dredging, filling, peat removal, pollution, and channelization.”

Ramsar was the direct result of the collective desire of concerned individuals to see wetlands destruction stopped, indeed reversed, through the power of the sovereign state. It is logical that the state has been the primary vehicle through which Ramsar operates, for it has been at the hands of both public policy and public neglect that wetlands have suffered the most (Matiza 1994; Dugan 1992).

Ramsar's methods have changed over time, with an initial concern for locating wetlands of international importance within protected areas making way for more nuanced arguments in favour of 'wise use'. This is in keeping with most conservation-oriented organisations' shift toward sustainable utilisation, an idea and practice that will be discussed below. At the same time, Ramsar's definition of a wetland has broadened considerably, such that the traditional conception of a wetland (e.g. as bog or fen) is subsumed under the more comprehensive term wetland system. Compare the two definitions below as an example:

“*Wetland*, geographic area with characteristics of both dry land and bodies of water. Wetlands typically occur in low-lying areas that receive fresh water at the edges of lakes, ponds, streams, and rivers, or salt water from tides in coastal areas protected from waves. In wetlands, the surface of the water, called the water table, is usually at, above, or just below the land surface for enough time to restrict the growth of plants to those that are adapted to wet conditions and promote the development of soils characteristic of a wet environment ... Wetlands can be classified into three general categories: marshes, swamps, and peatlands. Within each of these categories, wetlands can vary widely. Because wetlands depend on water sources, their boundaries can change” (Microsoft Encarta Encyclopedia 2000).

*Wetland*: “areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine waters, the depth of which at low tide does not exceed six metres” and may include “riparian and coastal zones adjacent to the wetlands, or islands or bodies of marine water deeper than six metres at low tide lying within” (Ramsar convention quoted in Hollis et al 1988).

Whereas the former comprises the traditional notion of a wetland as a water-logged area limited in size (e.g. a fen), the latter encompasses not only the former but virtually all earth-bound elements of the water cycle. According to Blasco (1997):

“[T]he resolution on Ramsar and water is of high significance, because for the first time the Conference of the Parties is addressing the question of ‘the important hydrological functions of wetlands, including groundwater recharge, water quality improvement and flood alleviation, and the inextricable link between wetlands and water resources ... Fresh, high quality water is already critically scarce in many places, and looks set to become scarce in many other locations. Water may well be the critical environment and development issue of the 21st Century.’”

Wetlands, it seems, are considerably wetter than initially thought. This is an important point returned to later in the context of sustainably managing the Okavango Delta.

The intention clearly is to locate traditional wetlands within an entire system of which the overall sustainability is subject to a wide variety of human and natural interventions. Again the logic is impeccable: what is the use of ‘managing’ a wetland of which the very existence may depend on far-removed agricultural, industrial and urban practices? To this end, Ramsar is seeking, among others, universal membership in the convention and designation of all wetlands – not simply those that parties to the convention consider as their ‘flagships’.

Equally important for the conservation of traditionally defined wetlands is the way in which Ramsar has attempted to locate the convention itself within the wider ambit of the UNFCCC, UNCBD and UNCCD (Blasco 1997). This is part of a broader strategy to try and change people's ways of thinking about the environment or natural resources as somehow apart from their daily concerns, as somewhat akin to specialist interests – it is an attempt at what Phillips (1998) calls “mainstreaming wetlands”. This is also ‘wise use’ of its own resources, given the fact that the Ramsar budget and permanent staff numbers pale in comparison to these global conventions. Articulating the many ‘goods and services’ wetlands provide to humanity has long been a means by which those interested in their conservation argue against habitat conversion (Matiza 1994; Phillips 1998; Hollis et al 1988). More recently, economic valuation of wetlands in the context of biological diversity and natural resources accounting has been another (Richardson 1998). Added to this are arguments for wetlands' central role as buffers in combating desertification, and as valuable carbon sinks in the struggle against global warming (Davidson 2000).

The Ramsar convention has also sought to align itself with powerful global NGOs, either with a mass membership base – Wetlands International, Worldwide Fund for Nature, Birdlife International – or with a mixed membership including a core of research scientists – IUCN. Most recently it has entered into a partnership with the private sector Danone Group through the Evian project to improve internet facilities for ten “developing and transition Contracting Parties” (Phillips 1998). To give form to these many activities, Ramsar formulated a strategic plan for the period 1997-2002. Adopted in 1996, the plan describes some 125 actions under the eight general objectives listed below:

- universal membership;
- wise use of wetlands;
- education, public awareness and communication;
- capacity-building and training;
- management of wetlands of international importance;
- designation of Ramsar sites;
- international cooperation; and
- strengthening the institutions of the convention.

How all these activities and interests play out in the context of the Okavango Delta is the subject of a further section in this chapter. At this point, however, it is important to locate these activities within a more theoretical framework so that the possibilities or improbabilities for success, either at global or local level, may become clear.

### Clausewitz or Kant?

What can be made of all this activity? How likely is it to succeed, not only in preserving wetlands but, in the Southern African context, in building regional peace, for this is the sometimes explicitly stated goal of conservation organisations (De Villiers 1999; Swatuk 1997; 2001)? How these questions are answered depends to a great deal on whether an optimistic or pessimistic attitude about regional futures prevails. In Southern Africa today, there are parallel, opposed narratives in regular use to explain contemporary events and guide (policy) decisions. One reflects the classical realist assertions of Gray, the other the Kantian liberalism of Halliday shown in the epigraphs above. Each provides compelling evidence in support of its analyses. Kantian narratives argue that there are three dominant themes driving regional developments: the post-apartheid democratic moment; the socioeconomics of neo-liberal structural adjustment, now including regional (SADC) and continental (New Partnership for Africa's Development – NEPAD) integration components; and the post-Rio and Rio +10 emphasis on the collective management of natural resources. The manner in which these interlink and overlap forms the basis for the emergence of more positive and constructive inter, intra and transstate relations: a new language fuelling new thinking about a new regionalism (Swatuk & Black 1997; Swatuk 2000).

Supporters of this perspective usually emphasise the functional character of the new regionalism, with SADC, transnational, subnational and multilateral activity at the forefront of analysis. An emerging regional energy grid, a variety of protocols, improved communications and transportation networks, transnationally managed 'superparks', and new water laws are all said to be moving the region in the direction of cooperation and peace. The post-apartheid democratic moment, therefore, facilitates the collective pursuit of world order values in the region. These values of peace, economic growth and environmental sustainability are dependent upon increasing space for civil society to articulate its diverse needs and interests and

exercise its capabilities free from a domineering and overdeveloped state. They also require the more efficient allocation of often scarce resources by state makers in the region and the development of creative and effective partnerships between and among relevant stakeholders (state, corporate, (I)NGO and CBO-based).

To be sure, the Kantian argument continues, there are many obstacles along the road to regional peace and security. Like much of sub-Saharan Africa, the SADC region is characterised by weak, distorted and divided economies, war-battered societies, and too often unresponsive governments. Yet, unlike most of Africa, the SADC region enjoys the confidence and concern of the industrialised world as represented by the Organisation for Economic Co-operation and Development (OECD). As such, there seems to be much concentrated global effort toward making the African renaissance a reality, at least in this region. Importantly, the demise of UNITA rebel leader, Jonas Savimbi, is cause for hope regarding the prospects for peace and development both in Angola and in the Okavango River basin, in particular.

This perspective, in a nutshell, characterises all those active in conservation and development activities in the Okavango Delta – from local NGOs like the Kalahari Conservation Society, to international organisations like Conservation International, from bilateral and multilateral donors like GTZ, SIDA, the EU and GEF, to regional think-tanks like IUCN-ROSA, the Desert Research Foundation of Namibia (DRFN) and the Harry Oppenheimer Okavango Research Centre (HOORC).

However, for an increasing number of observers, it is the obstacles that mark the proper point of departure in regional analysis. State makers in Africa's Great Lakes region – the Democratic Republic of Congo, Uganda, Rwanda, Burundi – and Angola are without a doubt engaged in Machiavellian and Clausewitzian practices of 'statecraft'. Others – Zimbabwe, Zambia, Namibia, Botswana and South Africa – look on with varying degrees of interest. Levels of participation are partially determined by the immediacy of geopolitical events and the realities of cost and benefit analyses. Personalities and personal rule – the essence of Bismarck and Tallyrand, of classical realism, and so belittled in analyses of African politics over the last three decades – seem once again to be playing decisive roles in policy-making.

Even in those countries where bureaucratic structures of decision-making are more firmly entrenched – Botswana and South Africa – calculations are increasingly made on the basis of narrow 'national interests'. Ironically, states may be seen to be moving, simultaneously, in two directions: while they are busy building 'national fences' in a 'dangerous region', at the same time, departments of water affairs, tourism, trade and industry, among others, are actively seeking ways of tearing and keeping these national fences down (Swatuk & Black 1997).

The environment, quite literally, stands at the centre of these contradictions. Whereas the border areas between Namibia, Angola and Botswana have become sites of conflict, these countries share the Okavango River basin and are party to the Permanent Okavango River Basin Water Commission (OKACOM). Similarly, the Zambezi basin marks a zone of cooperation through the large, multilateral Zambezi

River Action Plan (ZACPLAN) – recently designated a NEPAD project – but also forms an area of crossborder conflict among the sovereign states of Angola, Zambia, the Democratic Republic of Congo and Zimbabwe (for general information on these and other Southern African river basins, see Chenje & Johnson 1996; Conley 1996; Pallett 1997; Turton 2003). Interestingly, in each case, conflict flows with the run of rivers. Headwater states are deep in conflict; those at mid-flow stand poised between Janus and Minerva; those at the mouth feel relatively helpless, as they contribute virtually nothing to the flow but accumulate everyone’s effluent, and are most keen on multilateral agreement. Depending on whether Kant or Machiavelli is favoured, or cooperation or conflict is chosen, the environment either appears as the locus of opportunity for regional peace-building or as a fragmented series of resources for defence and capture.

To say that conflict and cooperation are characteristic of the region is stating the obvious. A pertinent question to ask, however, is which of these trends are likely to dominate regional relations during the first decade of the 21st century? And, as a corollary, can deliberate emphasis on cooperative tendencies in one issue area help to foster abatement of conflict in another? In other words, without losing sight of Gray’s remarks, is it justified to act on Halliday’s encouragement?

While most of the non-state actors seem more inclined toward Halliday, what state makers really think is less clear. Ramsar’s activity, like most environmental organisations in the world today, mirrors the guardedly optimistic liberal institutionalist perspective on world affairs: while not losing sight of the myriad dangers let loose by a world of states jealously guarding sovereignty, they continue to beaver away at building creative coalitions and science-based arguments in the hope that formerly reluctant state makers will be trapped in an incontrovertible knowledge net. But many of those involved remain cynical. Ramsar was once described as a “toothless organisation” and a “gentleman’s agreement without political clout” (Holberg, personal communication).

### Managing the Okavango Delta or the ‘delta system’?

It must be made clear from the outset that sustainable management of the delta itself is dependent upon sustainable management of the entire Okavango River basin – unsustainable inputs upstream (e.g. large-scale irrigated agricultural projects, large dams near the headwaters, many small farm dams along a repopulated middle river) will fundamentally alter the delta. According to Hollis and others (1988):

“The components that support a wetland often originate well outside its boundary. Wise use of wetlands therefore often requires that appropriate conservation measures be taken beyond the boundary of the wetland. For example, ensuring a continuing supply of water of appropriate quality may require soil conservation measures in the headwaters, minimal upstream diversions of river-water, and the protection of water courses from industrial pollution.”

This is not to undermine the very necessary national-level activity ongoing in Botswana of devising both a national inventory of wetlands and a management plan for the Okavango Delta itself. There are numerous resource use conflicts in place both in the core and buffer zones that must be addressed irrespective of upstream, transition zone activities (Peters 1994; Arntzen & Veenendaal 1986; Van der Heiden 1992; Hasler 2000a).

The ‘core’ area is defined as one of “the largest and most important inland wetlands in the world, covering over 15,000 square kilometres” (Monna 1999). The transition zone extends to the headwaters in Angola’s Bie plateau. If the buffer zone is included, the area enlarges significantly:

“Botswana submitted documents containing a description of a wetland known as ‘The Okavango Delta System’ ... The Ramsar site is measured at approximately 68,640 square kilometres (6,684,000 ha) ... The designated area includes the Okavango River, the entire Okavango Delta, Lake Ngami and parts of the Kwando and Linyati [sic] River systems that fall along the western boundary of the Chobe National Park” (Monna, 1999).

Botswana became a contracting party to the Ramsar convention in April 1997. Most observers feel that this act was taken based on narrow national interest: that upstream threats to the delta, in particular planned abstraction by Namibia and the potential for the same by a peaceful Angola forced policy makers in Botswana to try to locate regional water disputes within a framework of global interests. Similarly, whereas the government of Botswana was reluctant to designate the delta as a world heritage site in the past – fearing global backlash against its own development plans – it eventually became clear that in the context of ‘wise use’, it was better to become party to these conventions than to stand apart from them.

The 1987 Regina conference of the parties adopted the following definition of ‘wise use’: “The wise use of wetlands is their sustainable utilisation for the benefit of humankind in a way compatible with the maintenance of the natural properties of the ecosystem.” Sustainable utilisation is defined as “human use of a wetland so that it may yield the greatest continuous benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations” (Hollis et al 1988). This definition of wise use as sustainable utilisation is one of the most significant concessions made by conservation organisations in the last 20 years. It marks the culmination of a learning process whereby people and communities were conceptually reinserted into the landscape by organisations that still wish they were not there. Hence, core, buffer and transition areas appear. In the case of the Okavango Delta system, far from being a ‘pristine wilderness’, the entire ‘system’ is populated, with even the highly protected core providing ‘food for the pot’ for local communities resident there. In order to maintain the ecological character of the river, each of these zones require comprehensive management plans, sufficient human and capital resources, and the political will to see that policies are not only put in place but acted

upon. As the Okavango Delta is an international river basin, its management requires a very creative and determined approach to integrated water resource management.

### Barriers to success

It is no small task to discuss the numerous barriers to success. Given space constraints, only a summary of these issues is provided. It is important to note that barriers to success are a difficult mix of structure and agency. As such, some may be more easily addressed and altered than others.

Perhaps the most powerful barrier to the sustainable management of the Okavango Delta system is humankind's treatment not only of wetlands but of nature throughout history. Some would say it marks not only the foundation of Enlightenment thinking but of industrial-based development (Swatuk 2001; Hunter 1992). As highlighted above, the world's wetlands are fast diminishing and have been doing so for perhaps a millennium. Drainage of wetlands has long been a strategy of human development, and human development has for several centuries regarded nature as an adversary to be overcome. In western renderings of 'development', those societies thought to reside most closely in harmony with nature – indigenous peoples – are regarded as 'backward'.

The impact of these practices on Southern Africa is particularly unfortunate, with the inherited colonial state forms organised specifically to exploit the natural environment through marginally linked enclave industrial activities in service of imperial or colonial industrial-based power (Swatuk & Vale 1999). In a neo-liberal age, underdevelopment may be an unfashionable concept, but it quite accurately captures the essence of the development problematique facing countries that are members of OKACOM (Amin et al 1987; Saul 2001; Wallerstein 1986). What does this mean for the sustainable management of the Okavango Delta system? In short, it means to swim against the entire tide of development history, philosophy and practice.

Compounding the difficulties arising from these philosophical and historical factors are recent regional experiences with liberation struggles and civil wars. While there is a flicker of hope of a peace dividend in Angola, the extent of physical and psychological damage cannot be overestimated. And while there are those who might suggest that, in certain contexts, war is better than peace for conservation, there are few who would wish to deny Angolans a peaceful and prosperous future (see Alvarez 2001; McNeely 2002). At the same time, there is a significant development deficit, not only in Angola, but throughout the SADC region. Part of the challenge for those interested in maintaining the Okavango system is to demonstrate to state makers, most of whom are imbued with 1950s-style notions of 'mega-project' development – for example, irrigated cash crop agriculture, power plants, producer-driven commodity chain production – that decentralised, community-based, participatory forms of 'development' are a better, more sustainable option (Hasler 2000b). Namibian plans for a gas-fired power station at the Orange River mouth Ramsar site, its stated intentions

to build a hydropower plant at Popa Falls – again, in the middle of the Namibian-proposed Southern Okavango Ramsar site – its long-planned usage of Okavango River water via the Eastern National Water Carrier project, and its mooted plans to establish large-scale irrigated agriculture in the Caprivi Strip, all suggest the opposite.

Namibia is being singled out only for example, however. Each of the riparians are determined to pursue national development plans, often holding jealously to their sovereign right to do so. Outside observers often attribute Angola's relatively inactive participation in OKACOM to a lack of capacity and a preoccupation with fighting UNITA. Yet, others closely involved with these basin commissions argue that inaction on OKACOM results more from Angolan unhappiness with Namibian developments in the Cunene River basin, and unwillingness to expose its plans for the Cubango beyond Savimbi (names withheld, personal communications). In addition, from the upstream point of view, Botswana's recent conversion to 'sustainable utilisation' options and arguments results not from any 'greening' of the government, but from a combination of money made through tourism (i.e. real cash benefits) and the failure to push through its own Southern Okavango Integrated Water Resources Management project (Hasler 2000a; IUCN 1992). While those interested in regional peace point to the positive World Court adjudication of the Namibia-Botswana dispute over Sedudu Island (see Swatuk 2002), it is clear that no real 'national interests' were negatively affected by the court's decision.

Botswana's unilateral announcement of the Okavango Delta system as a Ramsar site, though technically correct – its boundaries being entirely within Botswana's sovereign territory – left a bitter taste in the mouths of its OKACOM partners who felt that its action went against the collective spirit of the commission. As a consequence, it has taken some time to achieve cordial working relations. Yet, the fact remains – sovereign states keen on post-war reconstruction and overcoming the development deficit are unlikely to take kindly to outside interference in their development plans.

Most of the barriers to success discussed thus far may be regarded as structural – history, development philosophy, underdevelopment and national sovereignty. Agency, or the human capacity to overcome these, should not be ruled out. But human capacity comes in many forms, some of which work to reinforce structural pathologies, others to overcome them. This is most clearly expressed through institutions, for institutions stand at the interstices of structure and agency. For example, SADC government institutions, developed haphazardly over time or established to satisfy particular needs (like colonial interests), locate resource use decisions across numerous departments, ministries and agencies. Decision-making reflects the interests of strong personalities and influential departments and ministries. It also privileges policies oriented to retain the status quo, as all departments vie for their piece of the national budget.

At national level, departments or ministries of water development, mining, lands, housing and agriculture, to name several, are geared toward the exploitation of the resource, while national conservation agencies or ministries of tourism and the

environment are more interested in its conservation and wise use. Moreover, agencies or ministries of the environment tend to interact with their international counterparts and other NGOs sharing similar interests. The same may be said for ministries of finance, industry, mining and the like. As a result, while in theory serving ‘the national interest’, they in fact speak different languages and serve different interests. It should also be remembered that ministries of the environment and tourism are relative newcomers to government. For example, in Botswana, the National Conservation Strategy Coordinating Agency is now to become part of a newly formed Ministry of Tourism and the Environment. As global interests change, so local institutions adjust to reflect these interests. It does not mean, however, that they hold much power in national government circles. Power still lies with those ministries and departments developed on the back of colonial or imperial endeavours, for example, mining and agriculture. Beyond lip service at world summits, it is difficult to see how these institutions can make a meaningful contribution to the sustainable management of resources they have historically wasted and polluted. Ways must be found to build synergies across ministries and departments and undercut interministerial struggles over national resources. Without political power, the best management plans will fail. Worse still, with political power, bad management plans will be implemented.

The foregoing all point toward that fuzziest of variables, political will. It is no exaggeration to say that maintaining the health of the Okavango Delta is about as far away from Angolan government policy-making circles as an issue can get. It is also clear that the government of Namibia will use Okavango River waters as part of a national conjunctive use strategy. And, despite current appearances to the contrary, it is not clear that the government of Botswana will not make use of these waters as well – the Southern Okavango water project is shelved for the time being, but not abandoned. What is clear, however, is that the delta generates jobs, profits and supports multiple sorts of livelihoods for many people. Clearly, this is the basis for building political will.

One of the abiding dangers, however, is the strident approach to maintaining the waters of the delta taken by the (national and international) media and conservation organisations. Media sensationalism and the arrogant, know-it-all approaches taken by conservation organisations, like the International Rivers Network (IRN), do more damage than good. Communication is already a problem – between and among communities within the Okavango River basin, as well as between, among and within OKACOM member governments. It is imperative that channels of communication are kept open and flows of accurate, objective information – the purpose of this book – are nurtured.

### Hopeful elements

While the barriers seem daunting, there are in fact many favourable bridges to sustainable resource management. Two favourable elements that often go unremarked are time and the robustness of the Okavango Delta system. In terms of the latter,

according to Wolski, the delta itself is less vulnerable than is often thought. On the one hand, it looks vulnerable due to the contrast with its surroundings. However, on the other hand, in Wolski’s view, the delta is constantly changing: “It is subject to such big natural variability that it can sustain much more than we anticipate. This dampens the impact of variability because it is used to such variability” (Wolski, personal communication). Wolski also maintains that the system is so complex and the changes have been so gradual that it is virtually impossible to tell which are manmade and which natural. This is not to counsel complacency. It does suggest, however, that there is a good deal of time in which to articulate viable management plans, to sort out the necessary interstate modalities, and to build implementation capacity. Also contributing to the time factor is the relatively unpopulated character of the basin itself – a situation that will no doubt change as Angola consolidates peace. Whereas it may be true that once changes are initiated their impacts are quickly felt in arid areas, the widespread fears expressed about Angola as the ‘sleeping giant’ seem to be overstated at the present time.

Other favourable key elements are global interest, expertise and capital. This comes in a wide variety of forms: from bilateral support for the development of an Okavango River basin management plan (Swiss small grant programme), to an EU-supported, multidisciplinary and multi-university project focusing on achieving a balance between social and ecosystem needs in an international river basin; from the SIDA-sponsored project Every River Has Its People (ERHIP) that brings together six NGOs from Namibia and Botswana to study ways in which communities may be made active partners in the management of the Okavango system, to a Conservation International administered project investigating prospects for establishing a transboundary ‘peace park’ extending from the delta into the (presently moribund) Cuando-Cubango controlled hunting area (see De Villiers 1999). Ramsar is active in many of these and related activities, and there is a strong synergy between projects and groups, in part facilitated by the small scientific communities that exist in both Namibia and Botswana. While they may disagree on goals and methods – with the Namibian National Eastern Water Carrier being the prime case in point – they do nevertheless continue to liaise with one another and on occasion to work together.

Local interest is another key factor in support of conservation and wise use efforts. For example, ERHIP has its roots in the Okavango Liaison Group’s efforts to strengthen dialogue between the governments of Namibia and Botswana regarding use of the waters of the Okavango River. The history of the Okavango Liaison Group (OLG) itself grows out of local Ngamiland action against the government of Botswana’s Southern Okavango Integrated Water Development project. This long tradition of social activism is buttressed by the relatively democratic *kgotla* system of traditional government. Local communities lacking organisation have been helped by a wide variety of indigenous (Kalahari Conservation Society, Desert Research Foundation of Namibia) and international (Conservation International, International Rivers Network) NGOs with their own conservation-oriented interests overlapping with local community desires for access and (sustainable) use.

Lastly, there are a wide variety of regional interstate frameworks (SADC, OKACOM, Orange River Basin Commission, Limpopo River Basin Commission), with various protocols (e.g. on trade, tourism, shared watercourses) based upon global accords and conventions (e.g. Helsinki, UN Convention on the Non-Navigational Uses of International Watercourses, CITES). As stated earlier, the small base of scientists in the region ensures that many of the same faces meet time and again in different forums, thus sometimes building networks of trust (and, admittedly, sometimes animosity).

### Thinking strategically: Achieving ‘wise use’

Clearly, there is a great deal of interest and activity ongoing around the Okavango Delta itself and within the wider Okavango system. Two questions remain: Does all of this activity contribute to achieving the goals of ecosystem maintenance and wise use and to building regional peace? What has to be done to ensure that interrelated goals are achieved?

To attempt to answer the first question is to put the cart before the horse. Clearly, it is early days. Turning to the second question, and in light of the working assumption that all of this activity will contribute to regional peace and prosperity, there are a wide variety of strategies that may be undertaken.

First, knowledge is power: Countering extant ways of ‘doing’ politics and development can only be achieved by building a knowledge base that shows parochial politicians and destructive developmentalists the irrefutable benefits of ecosystem maintenance and wise use. It is unfortunate that those involved are forced to engage state makers with instrumental value arguments. Preserving nature should need no political, social or economic justification: there is intrinsic value in nature. But politicians are too often far from ‘green’, and too often privilege industries that are ‘brown’. As public officials in Windhoek are quick to point out: asking questions about the sustainability of the city’s two new garment industries, which will likely employ 8,000 to 10,000 people and inject an estimated N\$25 million per annum into Windhoek’s economy – Effluent quality? Water use efficiency? Why Windhoek and not Okahandja? – is to commit a treasonable act (personal communications, names withheld).

Set in regional terms, this is a distressing example. For the legacies of colonialism, imperialism and underdevelopment have created an extreme development deficit. State makers in Namibia, Angola and Botswana all came of age during the height of the modernisation period. Their understanding of development rests undeniably on the conquest of nature, where ‘biodiversity loss’ resulting from habitat conversion includes not merely ‘nature’ but certain cultural groups and cultural practices. So, water is power and power drives economies and economies create jobs. What hope is there for wetlands, even the wise use of wetlands, in the light of such thinking?

Policy-relevant social and physical scientific research must continuously be conducted so that policy makers see that there are realistic options and that these

options can translate into votes (see, for example, Pallett 1997; Heyns et al 1998; Turton 2000). One of the main reasons why community-based natural resource management as conceived by USAID in Botswana failed so dismally is because USAID failed to recognise the political implications of ‘empowering people at the margins’. Upon departing from Botswana, one USAID official remarked: “the government simply is not interested” (personal communication, name withheld). But he was wrong: the government was very interested – that is why boreholes, drought relief, roads and clinics are the methods of choice: government is more interested in maintaining itself in power than in empowering people to think for themselves, to realise that there are choices. A population with choice, particularly in an ethnically divided society, is a potential political problem.

Recognising this, smart partnerships should be cultivated within and beyond states. There are often key individuals in certain ministries who wield much power and influence. Kader Asmal in South Africa is the obvious example: as minister of Water Affairs and Forestry, Asmal was able to achieve a great deal of good in a short period of time. In Botswana, Ian Khama may play a similar role. It is an unfortunate truth that cultivating a relationship between Khama and, for example, the IUCN’s Jeff McNeely may do more good for conservation than all the science in the world.

Networks and sympathetic constituencies must be built at local, national, regional and global level. In doing so, the idea of ‘wetlands’ must be relocated beyond departments or ministries of the environment and should be placed squarely where the power lies: in the ministries of industry, trade, finance, mining and fisheries, for example. Economic valuation arguments based on transboundary peace parks and global tourism are a necessary beginning as these build links between a variety of ministries in all basin countries and present possibilities for shared positive economic outcomes. At the same time, work within existing frameworks should continue – SADC, OKACOM, the Revised Protocol on Shared Watercourses – without reinventing the wheel. The small scientific base in the region means that synergies can be built at the regional level that might not otherwise be possible in more complex political economies. An interesting angle to this is the potential role South Africa may play as impartial ‘third party’. The scientific community in South Africa is far more developed than in the rest of the region and so constitutes a ready resource to be tapped. However, there is also the legacy of the ‘regional hegemon’, again playing itself out in economic and political terms and so there may be some resistance to this idea. Also, given worrying trends toward privatisation and so-called public-private partnerships, South African involvement in the region in the form of ‘consultancies’ may be regarded negatively as a form of neo-liberal pollution.

A practical contribution that could be made to existing frameworks is the establishment of a library or some other form of depository where all the research ongoing in the Okavango River basin could be stored and made available to the public. The HOORC may be able to play such a role. But the location should not be



restricted to a single country: the research centre may be more broadly defined to include branches in Angola, Botswana and Namibia – given lingering distrust and personality differences, this may be a more viable solution. At the same time, the regional library could be staffed by university students of SADC states – either registered in a SADC university or in a university elsewhere in the world – and valuable collation and analysis of the collected research could lead to a variety of postgraduate degrees. This research could be facilitated by scholarships provided by those international groups active in the basin and the SADC region.

It is important to play to existing strengths. This means recognising that, although the fact or form of states and their tendency to operate on the grounds of narrow self-interest may not be changed, environmental awareness can be built at grassroots level – that is, among the children of the region who will ultimately constitute the state makers of the future. The power of environmental education programmes must not be underestimated.

Penultimately, those interested in conservation and wise use of wetlands broadly defined must think practically not patronisingly. There is an unfortunate tendency among certain international NGOs and donor agencies to treat local people as though they are ignorant savages – it is the recreation of 19th century thinking about racial hierarchies, of which the basis for truth today is ‘the lab coat’. Local people’s interests must be respected, otherwise a constructive dialogue will never emerge. A practical approach, therefore, would be a scholarship fund to train people in natural resource management, economic valuation of natural resources, among others – not to chase consultancy fees and act as global know-it-alls. Another practical approach would be to provide formal positions for local community representatives either in OKACOM itself, or in an adjunct forum specifically created to filter popular opinion, knowledge, needs and desires upward to state level.

### Concluding remarks

Lastly, the facts of state power, of ‘national interests’, and of sovereignty cannot be ignored. Indeed, taken together they constitute the fundamental problematic for successful management of the Okavango Delta system. While many academics working in the social sciences use post-positivist, constructivist methods to interrogate the world around them, those operating in the area of (the political economy of) natural resource management would do well to engage in a two-level game. On one level, it is useful to recognise that states are social constructions, that they are time-bound historical artefacts, not timeless physical phenomena. Regarding them as such provides insight into capacities for changing the system, perhaps toward different, more inclusive and sustainable forms of social organisation, grouped, for example, around resources like river basins. However, at another level, it must be acknowledged that those who inhabit states act as though they are timeless entities, taking their intellectual cues not from Kant but from

Clausewitz and Machiavelli. There are those who argue that states counselling interdependence and multilateralism only do so because they are weak in a world of the strong. As a downstream state, Botswana is playing the multilateral card. By doing so it is hoping eventually to tie its upstream neighbours into a regime of sustainable river basin management. Botswana, in playing the ‘environmental good guy’, is understandably pursuing narrowly defined national interest in the form of delta health for tourism and economic development. Namibia is more ambivalent about this. While it too is a contracting party to Ramsar, it has recently shelved plans to place the Lower Okavango River wetland on the list of wetlands of international importance. However, through OKACOM it remains willing to talk and to listen – very important activities indeed. But its stated intentions remain: to use the waters of the Okavango as part of a conjunctive use strategy that will ensure steady supplies of water and national development. Angola – not a Ramsar member – remains the unknown entity, but a post-Savimbi Angola would conceivably behave much like present-day Namibia. As an Angolan state maker, the first question to ask of Botswana is probably why Angola should forego the use of the water of the Cubango and allow Botswana to reap all the economic and social benefits. What is in it for Angola?

History shows that upstream states and regions within states have always taken the lion’s share of the water. The Colorado River, dammed and diverted time and time again, no longer flow into the sea. The quality and quantity of water in Southern Africa’s rivers that flow through Mozambique pose both serious challenges to integrated water resource management in the region and grave warnings for those interested in maintaining the health of the Okavango Delta. The delta presents a very difficult position, for the waters end in an ecologically and socially vibrant physical space in the heart of another country. If Angola decides – officially through government, or informally through the actions of many (possibly a more likely outcome) – to abstract a volume of water from the river that will forever alter the delta, what is there to stop the country from doing so? This marks an instance of the abiding tension between Machiavelli and Kant in the region and in the world: there seems little that can be done to stop them from doing so. Can shared membership in global conventions serve as the basis for sustainable use? Perhaps, but as long as state representatives to these conventions are located in relatively powerless conservation agencies or marginal environmental ministries, it is unlikely that sustainable use will move from theory to practice.

Building webs of knowledge and interest must continue, and those concerned should continue to think practically, to lobby vehemently and to listen carefully. In this way, perhaps what is improbably possible – like integrated water resource use – may one day seem common-sensical, like the fact of states themselves. In the words of Hollis and others (1988): “When wetland destruction becomes a socially unacceptable activity, we shall know that the message about the wise use of wetlands has finally been heard.”

## References

- Alvarez, M D. 2001. Could peace be worse than war for Columbia's forests? *The Environmentalist* 21.
- Amin, S, Chitala, D & Mandaza, I (eds). 1987. *SADCC: Prospects for disengagement and development in Southern Africa*. London: Zed Books.
- Arntzen, J W & Veenendaal, E M. 1986. *A profile of environment and development in Botswana*. The Netherlands and Botswana: IES and NIR.
- Barnard, P (ed). 1998. *Biological diversity in Namibia: A country study*. Windhoek: Namibian National Biodiversity Task Force.
- Blasco, D. 1997. *The potential of the Ramsar Convention on Wetlands*. Speech delivered to the conference *Naturschutz [Inter]national*, Vienna, Austria, 15 May. At <ramsar.org/speech\_naturschutz.htm>.
- Communicating the Environment Programme (CEP). No date. *The Ramsar convention*. Factsheet 17. Harare: SADC/IUCN/SARDC.
- Chenje, M & Johnson, P (eds). 1996. *Water in Southern Africa*. Maseru/Harare: SADC/IUCN/SARDC.
- Chenje, M (ed). 2000. *State of the environment Zambezi basin 2000*. Maseru/Lusaka/Harare: SADC/IUCN/ZRA/SARDC.
- Conley, A J. 1996. A synoptic view of water resources in Southern Africa. In Solomon, H (ed). *Sink or swim? Water, resource security and state co-operation*. IDP Monograph 6. Halfway House: Institute for Defence Policy (now Institute for Security Studies).
- Davidson, N. 2000. *Defining IUCN's role on climate change: Viewpoint from the Ramsar Convention on Wetlands*. Workshop summary statement: Interactive session 12 – The ecological limits of climate change. 7 October. At <www.ramsar.org/speech\_amman\_nick1.htm>.
- De Villiers, B. 1999. *Peace parks: The way ahead*. Pretoria: HSRC.
- Dewdney, R. 1996. *Policy factors and desertification: Analysis and proposals*. Report prepared for the NAPCOD Steering Committee. Windhoek: NAPCOD.
- Dugan, P J. 1992. Wetlands management: A critical issue for conservation in Africa. In Matiza, T & Chabwela, H N (eds). *Wetlands conservation conference for Southern Africa*. Gland, Switzerland: IUCN.
- Gaolathe, B. 2001. *Budget speech*. Gaborone: Government Printer.
- Gaolathe, B. 2002. *Budget speech*. Gaborone: Government Printer.
- Gieske, A & Gould, J (eds). 1994. *Integrated water resources management workshop 1994: Proceedings*. Gaborone: University of Botswana.
- Gleick, P H. 2000. *The world's water 2000-2001*. Washington DC: Island Press.
- Goude, A. 1993. *The nature of the environment*. Oxford: Blackwell.
- Goude, A. 1997. *The human impact on the natural environment*. Cambridge: MIT Press.
- Government of Botswana. No date. *Water: Chapter 34:01*. Gaborone: Government Printer.
- Gray, C. 1999. Clausewitz rules OK? – The future is the past. *Review of International Studies* 25. December.

- Halliday, F. 1999. The potentials of enlightenment. *Review of International Studies* 25. December.
- Hasler, R. 2000a. The hydropolitics of the Okavango Delta: Property rights and the management implications of competing land and water use strategies. *Botswana Notes and Records* 32: 73-84.
- Hasler, R. 2000b. The Okavango Delta and the 'end of progress': Global transformation and community based wildlife management. In Ringrose, S & Chanda, R (eds). *Towards sustainable management in the Kalahari region: Some essential background and critical issues*. Gaborone: DRD.
- Heyns, P, Montgomery, S, Pallett, J & Seely, M (eds). 1998. *Namibia's water: A decision maker's guide*. Windhoek: DRFN and DWA.
- Hollis, G E, Holland, M M, Maltby, E & Larson, J S. 1988. Wise use of wetlands. *Nature and Resources* (UNESCO) 24(1): 2-12.
- Hunter, J P. 1992. Economics of wetlands in Southern Africa: A search for a justification for their conservation. In Matiza, T & Chabwela, H N (eds). *Wetlands conservation conference for Southern Africa*. Gland, Switzerland: IUCN.
- IUCN. 1992. *The IUCN review of the Southern Okavango Integrated Water Development Project: Final report*. Gaborone: IUCN.
- Kolberg, H. No date. *Namibia country report*. At <ramsar.org/cop7\_nr\_namibia.htm>.
- Matiza, T. 1994. Wetlands in Zimbabwe: An overview. In Matiza, T & Crafter, S A (eds). *Wetlands ecology and priorities for conservation in Zimbabwe*. Gland, Switzerland: IUCN.
- McNeely, J. 2002. Biodiversity, war and tropical forests. Keynote address at the international meeting on *Tropical forests and extreme conflicts*. Osaka, Japan. 6-8 November 2001.
- Microsoft. 2000. *Microsoft Encarta Encyclopedia*. Microsoft Corporation.
- Mogae, F G. 2001. State of the nation address. Gaborone. October.
- Monna, S C. 1997. *A framework for international cooperation for the management of the Okavango basin and delta*. Ramsar Convention COP7 document 20.5. At <www.ramsar.org/cop7\_doc\_20.5\_e.htm>.
- Monna, S C. 1999. *Botswana country report for COP 7*. At <ramsar.org/cop7\_nr\_botswana.htm>.
- Moyo, S, O'Keefe, P & Sill, M. 1993. *The Southern African environment*. London: Earthscan.
- Njuguna, S G. 1992. The Ramsar convention: Its role in promoting sustainable utilisation of African wetlands. In Matiza, T & Chabwela, H N (eds). *Wetlands conservation conference for Southern Africa*. Gland, Switzerland: IUCN.
- Pallett, J (ed). 1997. *Sharing water in Southern Africa*. Windhoek: DRFN.
- Peters, P H. 1994. *Dividing the commons: Politics, policy and culture in Botswana*. Charlottesville/London: University of Virginia Press.
- Phillips, B. 1997. *Report on Botswana conference: Towards a national policy on wetlands*. Maun, Botswana. 24-26 November. At <www.ramsar.org/w.n.botswana\_conf.htm>.
- Phillips, B. 1998. *The mainstreaming of wetland conservation and sustainable (wise) use: The Convention on Wetlands (Ramsar, Iran 1971) – A tool for mainstreaming*. Keynote paper for the Wetlands International Board of Members meeting. Dakar, Senegal. November. At <www.ramsar.org/speech\_bill\_wi\_board\_dakar.htm>.

- Ramsar Convention. 1999. Regional overview of implementation of the convention and its strategic plan 1997-2002 in Africa. In *People and wetland: The vital link*. Ramsar convention report. May. At <ramsar.org/cop7\_conf\_rpt\_e.htm>.
- Swiss Small Grant Project. 2000. *Continuation of the work on the formulation of an integrated management plan for the Okavango Delta in Botswana*. At <ramsar.org/key\_swiss\_rpt2000.htm>.
- Richardson, J. 1998. Economics of biodiversity conservation in Namibia. In Barnard, P (ed). *Biological diversity in Namibia: A country study*. Windhoek: Namibian National Biodiversity Task Force.
- SAPES/UNDP/SADC. 2000. *SADC regional human development report 2000*. Harare: SAPES Books.
- Sauer, C O. 1938. Destructive exploitation in modern colonial expansion. *International Geographical Congress III*: 494-9.
- Saul, J S. 2001. *Millennial Africa: Capitalism, socialism, democracy*. Trenton NJ: Africa World Press.
- Swatuk, L A & Black, D R. (eds). 1997. *Bridging the rift: The new South Africa in Africa*. Boulder: Westview.
- Swatuk, L A & Vale, P. 1999. Why democracy is not enough: Security and development in Southern Africa in the 21st century. *Alternatives* 24: 3.
- Swatuk, L A. 1997. The environment, sustainable development, and prospects for Southern African regional cooperation. In Swatuk, L A & Black, D R. (eds). *Bridging the rift: The new South Africa in Africa*. Boulder: Westview.
- Swatuk, L A. 2000. Power and water: The coming order in Southern Africa. In Hettne, B, Inotai, A & Sunkel, O (eds). *The new regionalism and the future of security and development*. London: Palgrave.
- Swatuk, L A. 2001. The brothers Grim: 'Modernity' and international relations in Southern Africa. In Dunn, K & Shaw, T M (eds). *Africa's challenge to international relations theory*. London: Palgrave.
- Swatuk, L A. 2002. Environmental peacemaking in Southern Africa. In Conca, K & Dabelko, G D (eds). *Environmental peacemaking*. Washington DC: Johns Hopkins University Press.
- Turton, A R. 2000. Precipitation, people, pipelines and power: Towards a political ecology discourse of water in Southern Africa. In Stott, P & Sullivan, S (eds). *Political ecology: Science, myth and power*. London: Edward Arnold.
- Turton, A R. 2003. The evolution of water management institutions in select Southern African international river basins. In Tortajada, C, Unver, O & Biswas, A K (eds). *Water and regional development*. London: Oxford University Press.
- UNDP/UNEP/World Bank/World Resources Institute. 2000. *World resources 2000-2001: People and ecosystems, the fraying web of life*. Washington DC: WRI.
- Van der Heiden, L J. 1992. The Okavango Delta: Current state of planning and conservation. In Matiza, T & Chabwela, H N (eds). *Wetlands conservation conference for Southern Africa*. Gland, Switzerland: IUCN.
- Wallerstein, I. 1986. *Africa and the modern world*. Trenton NJ: Africa World Press.

- Wynberg, R. 1993. *Exploring the Earth Summit*. Cape Town: Department of Environmental and Geographical Science, University of Cape Town.
- Yi-fu Tuan. 1971. Quoted in Goude, A. 1997. *The human impact on the natural environment*. Cambridge: MIT Press.

## Interviews

### Namibia

- Du Pisani, P. Strategic Planning Executive, City of Windhoek, 20 and 21 August 2002.
- Heyns, P. Director, Resource Management, Department of Water Affairs, 21 August 2002.
- Kolberg, H. Wetlands Scientist, Directorate of Resource Management, Ministry of Environment and Tourism, 22 August 2002.
- Pallett, J. Senior Researcher, Desert Research Foundation of Namibia, 21 August 2002.

### Botswana

- Gabaake, G. Director, Department of Water Affairs, 18 April 2002.
- George, S. Principal Officer, Department of Lands, 25 April 2002.
- Kgathi, D L. Research Scientist, Okavango Research Centre, Maun, 22 April 2002.
- Kgatlwane, T T. Principal Officer, Department of Lands, 25 April 2002.
- Mbaiwa, J. Tourism Management, Okavango Research Centre, Maun, 22 April 2002.
- Mmopi, K K. Director, Department of Crop Production and Forestry, 24 April 2002.
- Monagen, N. Director, Department of Lands, 25 April 2002.
- Mvini, E. Conservation Officer, Department of Wildlife and National Parks, 19 April 2002.
- Mwinisibili, M. District Officer, District Land Use Planning Unit, Ngamiland, 19 April 2002.
- Nchunga, M L. Executive Secretary, National Conservation Strategy Coordinating Agency, 24 April 2002.
- Ramberg, L. Director, Okavango Research Centre, Maun, 22 April 2002.
- Sekhute-Batungamile, B. Coordinator, Every River Has its People, Maun, 22 April 2002.
- Wolski, P. Hydrologist, Okavango Research Centre, Maun, 22 April 2002.