

**Transboundary Approaches to River Basin Management – The
Okavango Case Study
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Background

The Cubango-Okavango river basin, which is shared by Angola, Botswana and Namibia, remains one of the least human impacted river basins on the African continent. The basin supports predominantly rural communities, which in each country are remote from the countries' capital cities and main centres of economic activity. As a result, the people of the basin are in general poorer, less healthy, and less well educated than other groups in their respective countries, underscoring the need for economic development in the basin. At the same time, in its present near-pristine status, the river basin provides significant ecosystem benefits and will continue to do so if managed appropriately (TDA Report, 2011).

Through the 1994 agreement that established the Permanent Okavango River Basin Water Commission (OKACOM) the three basin States of Angola, Botswana and Namibia expressed their bold commitment to developing a joint, co-operative management regime for the economically, socially and environmentally sustainable development and management of the basin.

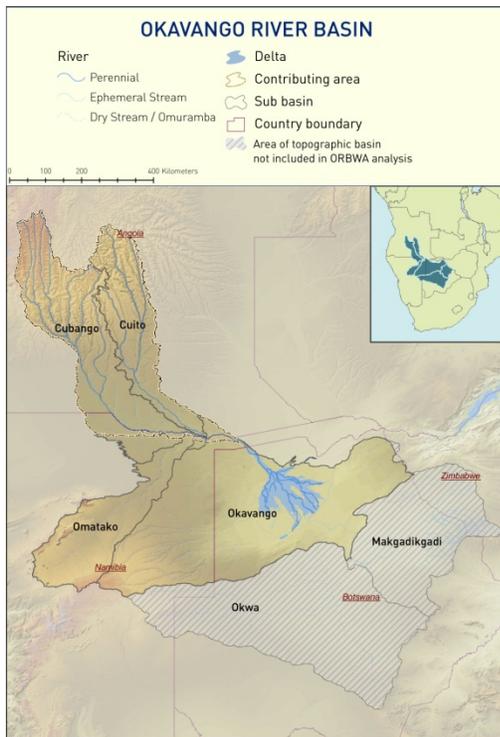


Figure 1: Geographical scope of OKACOM work

Diagnostic Analysis (TDA) and a Strategic Action Programme (SAP) under the Global Environment Facility (GEF) - funded Environmental Protection and Sustainable Management of the Okavango (EPSMO) project. These recently concluded studies constitute the very first project requested by OKACOM, designed to assist in the mapping of its intervention strategy for the sound management of the Cubango-Okavango river basin.

While the TDA is an in-depth environmental and socio-economic assessment of the basin, resulting from a joint fact finding exercise carried out under the auspices of OKACOM, the SAP is a cooperative management response to the key challenges for the Cubango-Okavango basin, as identified and described in the TDA, which forms the scientific-technical basis for the SAP. The SAP is a basin-wide mid-term planning document that lays down key principles for the development of the basin and, provides a framework for its joint management. The SAP has been developed over three years (2008-2010) through a consultative process with a wide range of stakeholders from government departments, academic and

The objective of the Commission is to act as the technical advisor to the Contracting Parties on matters relating to the conservation, development and utilization of water resources of common interest in the Okavango River Basin. This entails promoting coordinated and sustainable water resources management of the basin, while addressing the legitimate social and economic needs of the riparian states.

The Commission mandate emerges from a shared vision of the three States that envisages *anticipating and reducing unintended, unacceptable and often unnecessary impacts to the resources* of the Okavango basin system. The vision is supported by operational principles of: i/ equitable allocation; ii/ sustainable utilisation; iii/ sound environmental management and iv/ sharing of beneficial uses (OKACOM Agreement, 1994).

1. Approach to transboundary basin planning and management

To effectively transform the bold policy statement into practical joint interventions on the ground, the OKACOM commissioned a Transboundary

scientific institutions, civil society, the private sector and community representatives (TDA project document, 2004).

A series of national consultation workshops were held in each country, complemented by basin-wide consultation meetings under the umbrella of the Okavango Basin Steering Committee (OBSC). At country level, the process resulted in the formulation of National Action Plans (NAPs) in the three countries.

Central to the SAP, is improvement of livelihoods of the basin's people (as one of the main four thematic areas of priority) through the cooperative management of the basin and its shared natural resources. The remaining three thematic areas include, water resources management, land management and environment and biodiversity.

As part of the key component of Basin Development Management Framework (BDMF) that will generate the necessary conditions for provision of effective responses to the four thematic areas, the SAP identifies TWO fundamental and overarching goals:

- The livelihoods of basin people are improved.
- The sustainable management of shared waters and living natural resources is secured



To achieve these objectives, the following areas of supportive intervention (SI) are identified:

- SI1: Basin development planning and management based on shared vision;
- SI2: Decisions based on solid scientific knowledge;
- SI3: Focused environmental and socio economic monitoring programmes to support management decisions and tracking of long term trends established and strengthened
- SI4: Integrated planning criteria and objectives for sustainable development of water resources in the Cubango-Okavango basin agreed and established
- SI5: Technical capacity in the basin and involvement of

Photo 1: Cuelebe/Cubango Confluence in Angola

stakeholders in SAP and NAP implementation is improved.

2. Uniqueness of the adopted approach

The TDA process has created a solid opportunity to craft the science based approach for planning, management

and decision making, a working framework that OKACOM believes should be the basis for its operations. Through the TDA process, OKACOM has established solid action research links with critical centers of knowledge and information within the three riparian states. The process developed unprecedented trans-country and trans-disciplinary research activities among researchers from Angola (Agostinho Neto

University); Botswana (the University of Botswana's Harry Oppenheimer Okavango Research Centre) and Namibia (Namibia Nature foundation - NNF and Namibia Polytechnic).

Building from the Integrated-flows assessment methodology, the TDA process has provided a mechanism to improve understanding of the implications that changes in flow regime may have on basin ecological systems (broken down into various disciplines – e.g. freshwater biology, hydrology, hydraulics, geomorphology, socio-economic conditions (livelihood strategies – e.g. natural resource economics, anthropology, demography) and the Okavango River Basin's overall macro-economic system. A specially developed decision support system is being used to support the integrated basin flow assessment and to evaluate the “*triple bottom line*” impacts (ecological, socio-economic and macro-economic) of possible water-use development scenarios in the basin. The water-use development scenarios are viewed as ways of exploring possible management options, noting however, that we cannot assume that they will necessarily take place. They are simply meant to be used to inform negotiations for cooperative basin development. Ultimately, this analytical/thinking tool (responding the “*what if*” type of questions) can be used to guide the OKACOM in how best to define the “*acceptable development space*” in the basin that can sustain fundamental development needs without undermining the stability and functionality of the river system (cf. King J. and Brown C. 2009; King, J. et al.: in prep).

3. Addressing the challenges to transboundary basin management

Transboundary river basin management is a relatively new concept to planning, management and decision making. The approach, therefore, is faced with a number of challenges requiring careful thinking, tenacity and high levels of commitment by those involved in the process.

In one hand, it might be easy to understand that the logic of transboundary river basin management is routed in the principles of trans-national connectivity of natural river systems, socio-cultural realities and economic dynamics that do not recognise political boundaries. The prevailing policy and institutional construct, however, might still be grounded on “*business as usual models*” of country specific, sectoral and fragmented approaches, crippling the principles of trans-national connectivity. This can only be overcome when riparian states can perceive that there are challenges and opportunities that need to be addressed creatively with an understanding that there is more to gain from joint management as compared to country specific and fragmented approaches. A holistic approach to basin management is, therefore, required to facilitate the building of a basin wide common vision amongst the riparian states based on common understanding of the best return on investment from the uses and exploration of the basin resources.



To a certain extent, in the context of the Okavango, the move towards the development of joint shared vision has been initiated with technical and scientific joint fact finding driven by the TDA process. Technocrats from the riparian states were exposed to similar data sets as well as to similar realities on ground through conducted joint field expeditions and application of similar methods of analysis.

This was, however, a first step towards the required up-scaling for a much broader changes in mind sets and the need to also think laterally/transboundary, in planning, management and decision making, using of the best available knowledge and information. It calls for the ability to manage trade-offs in between countries and understand the big picture emanating from basin wide management of investment opportunities framing the agreed tri-country concept of “*the acceptable development space*” for the basin. To facilitate this, tri-countries trade-offs negotiations in an informed manner, robust decision support systems supplied with appropriate data and information are required to adequately facilitate evidence based policy formulation, planning and decision making. One of the key challenges to transboundary management, rests on the required institutional and policy frameworks to think and operate laterally and

across sectoral scales. Since countries have different national priorities governed by country specific planning frameworks and development visions, this institutional and policy challenge cannot be underestimated.

Addressing this particular challenge will certainly require a quantum leap in the establishment and consolidation of highly functional institutions of transboundary water governance.

Ultimately, it is in relation with this particular policy challenge that the revised SADC Protocol on Shared Water Courses Systems is of critical importance in guiding transboundary water governance in the context of the SADC regional integration strategy. In its article 3, it articulates principles of equitable and reasonable utilisation, unity and coherence, close cooperation and exchange of information.

Implementation of the protocol is driven by the SADC Regional Strategic Action Plan (RASP) for the Implementation of Integrated Water Resources, through which River basin Organisations have been recognised and a critical instrument for the process. In this respect, it is important to note that OKACOM is increasingly being considered a leading example in implementing the SADC protocol.

4. References:

Permanent Okavango River Basin Water Commission, 1994: Agreement between the Republic of Angola, the Republic of Botswana and the Republic of Namibia on the Establishment of OKACOM

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SADC, 2000: Revised Protocol on Shared Watercourses