



Wetland Management Planning: Okavango Delta (Botswana)

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Abstract

The Okavango Delta Management Plan was developed by the Botswana Department of Environmental Affairs in cooperation with a large number of stakeholders and partners. The department is responsible for the overall coordination of environmental activities in Botswana. It also coordinates environmental research, undertakes environmental education, and ensures implementation of environmental impact assessments, among many other duties. The management plan provides a framework for cooperative management of a diverse and highly important wetland complex. It addresses the role of local communities in management processes and recognises the multiple values and benefits that accrue.

Keywords

Management plan · Biodiversity · Ecosystem services · Stakeholders · Local communities

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Introduction

The Okavango Delta Management Plan was developed by the Botswana Department of Environmental Affairs (DEA 2008) in cooperation with a large number of stakeholders and partners. The DEA is responsible for the overall coordination of environmental activities in Botswana. It also coordinates environmental research, undertakes environmental education, and ensures implementation of environmental impact assessments, among many other duties.

The Management Plan was based on the planning system of the Government of Botswana and complemented by components of the Ramsar Convention's guidelines for management planning (Ramsar Convention 2010) and took into account the principles of the Convention on Biological Diversity's Ecosystem Approach (see <http://www.cbd.int/ecosystem/> accessed 18 September 2016). It was a multidisciplinary planning exercise based on participatory planning, integrated management, database management, hydrological modeling, economic valuation, scenario planning, feedback mechanisms, piloting, and joint planning (DEA 2008). The details of the management plan are given below, as derived from the formal version published by the Department of Environmental Affairs (DEA 2008).

Stakeholders

Organizations involved in developing the plan included the Departments of Water Affairs, Wildlife and National Parks, Tourism, Forestry and Range Resources, Animal Health and Production, Town and Regional Planning, as well as relevant authorities in the district, namely, North West District Council, District Administration, Tribal Administration, and Tawana Land Board. In addition, nongovernmental and community-based organizations in the district were involved. The Harry Oppenheimer Okavango Research Centre (now the Okavango Research Institute) played a major role throughout the design and development of the plan. The plan was subject to external review before being finalized.

Vision and Aim

The vision for the Okavango Delta is "A carefully managed, well functioning ecosystem that equitably and sustainably provides benefits for local, national and international stakeholders."

It has an Overall Goal "to integrate resource management for the Okavango Delta that will ensure its long-term conservation and that will provide benefits for the present and future well-being of the people, through sustainable use of its natural resources."

The Overall Goal is separated into three Strategic Goals, each with several Strategic Objectives:

Strategic Goal 1. *To establish viable institutional arrangements to support integrated resource management in the Okavango Delta*

Strategic objective 1.1: *To establish viable management institutions for the sustainable management of the Okavango Delta*

Strategic objective 1.2: *To improve the planning and regulatory framework for sustainable management of the Okavango Delta*

Strategic objective 1.3: *To raise public awareness, enhance knowledge, and create a platform for information exchange and learning about the Okavango Delta*

Strategic Goal 2. *To ensure the long-term conservation of the Okavango Delta and the provision of existing ecosystem services*

Strategic objective 2.1: *To conserve the ecological character (biotic and abiotic functions) of the Okavango Delta and the interactions between them*

Strategic objective 2.2: *To maintain or restore the wetland habitats and ecosystems of the Okavango Delta*

Strategic Goal 3. *To sustainably use the natural resources of the Okavango Delta in an equitable way and support the livelihoods of all stakeholders*

Strategic objective 3.1: *To sustainably use the wetland resources of the Okavango Delta for the long-term benefit of all stakeholders*

Strategic objective 3.2: *To develop socioeconomic opportunities to improve livelihoods of the Okavango Delta stakeholders*

The strategic objectives were subjected to a SWOT analysis (Strength, Weakness, Opportunities, and Threats) to determine SMART operational objectives (Specific, Measurable, Achievable, Realistic, and Timebound). These were in turn developed into a series of action plans.

Development of the Management Plan

The development of the management plan was driven by issues and based around extensive consultation with stakeholders from local communities, government departments, the private sector, nongovernmental and community-based organizations, and policy makers. The diverse interests and expectations were recorded and, as possible, incorporated and considered during the planning processes. While the Ramsar Planning Guidelines were used to guide the development of the Plan, they were adjusted in order to accommodate local structures and processes.

The focus of the Planning was on demonstrating that integrated resource management was possible with integration being treated as a process that would be realized as the Plan was implemented and feedback obtained. A purposeful effort was made to engage with stakeholders and ensure there was wide participation – processes that will continue throughout implementation to ensure there are ample opportunities for stakeholder involvement in decision-making. Similarly, capacity building is given a high priority in order to enhance understanding and dispel

misconceptions and, importantly, to create further opportunities to ensure the vision and goals are obtained.

The DEA will continue to play a major role with a presence in the main local center of Maun and by seeking opportunities for focused environmental planning and research on important issues. The latter will be extended through collaboration with the Okavango Research Institute and other institutions and experts. The importance of consultation and collaboration are emphasized throughout the Plan and are expected to be a mainstay of implementation. Similarly, data gathering, updating, storage, and processing for more informed decisions are key activities. As new information is acquired through focused research, specific action plans will be adjusted and the Plan kept adaptable and flexible. Annual sectoral reviews should ensure the Plan remains relevant.

The importance of basin-wide collaboration has been recognized given the influence that other jurisdictions have for the water that feeds the delta. In this sense, the Permanent Okavango River Basin Water Commission (OKACOM) is an important organization with mechanisms for partnership building and participation in regional projects. This level of activity will complement, that at a local level, where multiple stakeholders have a vested interest in the success of the Plan that is expected to provide benefits for the present and future well-being of the people, through the sustainable use of the bountiful natural resources of the delta.

Structure and Content of the Management Plan

The Plan was based around the implementation of an integrated resource management approach that covered three important subsystems:

1. The institutional subsystem which encompassed the management infrastructure and associated tools.
2. The biophysical subsystem which included the biotic and abiotic components of the delta ecosystem.
3. The socioeconomic subsystem covered the diverse uses (based on the ecosystem services) that people make of the biophysical subsystem.

These were addressed through the following structure:

Chapter 1 – Introduction – sets out the goal of the Plan and the policy framework within which it was developed. It also provides the background to the development of the Plan, such as the need for the plan, and the planning approach.

Chapter 2 – Site Description – describes the ecological character and the institutional and socioeconomic characteristics of the site which is listed as internationally important under the Ramsar Convention on Wetlands. It provides a collation and synthesis of existing data and information about the site and acknowledges that

this needs to be regularly reviewed and updated with new data and information. A separate series of documents provides a comprehensive and detailed inventory.

Chapter 3 – Evaluation of Status and Condition – provides an evaluation of the status and condition of the ecological character, as described in Chap. 2 in order to determine the necessary management interventions and objectives. The evaluation involved the development of a set of criteria that were applied to each of the key features of the ecological character. The evaluation focused on the entirety of the ecological character, including the ecological components and processes, as well as the ecosystem services provided by the wetland to support livelihoods. This also drew on the information obtained from the stakeholder analysis.

Chapter 4 – Goals, Objectives, and Action Plans – describes the objectives for the management interventions identified during the evaluation process and confirmation of action plans. Four levels of objectives have been used, namely, the overall goal of the Plan, the long-term strategic goals, strategic objectives which were developed in order to reach the three strategic goals, and the operational objectives derived from the strategic objectives.

Chapter 5 – Management Plan Implementation Strategy – describes the strategies as well as the necessary institutional and financial arrangements required to implement the Plan. The chapter also provides a framework within which future management interventions should operate and presents the planning horizon as well as the procedures for reviewing the implementation of the plan.

Chapter 6 – Monitoring and Evaluation Plan (M&E) – describes how implementation of the plan will be monitored and evaluated against the operational objectives. It provides information about how the project is performing to help decision makers and other stakeholders by providing information to track implementation and achievements. It is a source of information for justifying changes in management strategies and budgets through an adaptive management approach.

Chapter 7 – Conclusions – describes in brief the processes and principles used in the plan and the expectations arising from its implementation.

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