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DRFN

IWRM in the Cuvelai-Etosha Basin

Training Module

on

Interpretation and Critical Thinking

for

Basin Support Officers and Basin Management Committee members

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Developed by:
Desert Research Foundation of Namibia (DRFN) and Heyns International Water Consultancy (HIWAC), on behalf of IWRM in the Cuvelai-Etosha Basin Project

Learning objectives

At the end of this module it is expected that Basin Support Officers (BSOs), Basin Management Committee (BMC) members and other participants:

- Understand and apply critical thinking and interpretation and interpretation skills in their daily work/ basin management activities.

Materials needed:

- Flip chart stand and paper
- Brown sheets
- Cards of different shapes
- Marker pens
- Pens
- Notebooks

1. Explanatory notes

This module is incorporated in all the other training modules. During the training, participants were given exercises that allowed them to critically analyse situations and propose possible solutions. Some of the examples are as follows:

- Under the **Training Module on Legal and Institutional Framework and Enforcement**: Participants were required to analyse the legal framework for water resources management in Namibia by identifying the opportunities that it offers, the limitations with respect to implementation and suggesting what they think is their main responsibilities in making sure that the BMC function well.
- Under the **Training Module on Legal and Institutional Framework and Enforcement**: Participants were required to work in groups and critically analyse scenarios of undesirable situations: what would you do in your capacity as a BSO or BMC if you come across the following undesirable situations in the sub-basin/ basin that you work in?
  - Sewage water from a factory is flowing into a water course?
  - A Regional Councilor in the sub-basin/ basin that you work is promoting non-payment for water services, mainly for political reasons?
  - A school within a sub-basin with major water leakages that have formed a temporary lake
  - Vandalisms of water infrastructure at water points worsened by children playing with water

- Under the **Training Module of Stakeholder Participation and Engagement**: Participants were requested to select an existing problem/challenge in one of the basins/sub-basins in Namibia. Upon selection of the problem, they were then asked to carry out a stakeholder analysis in addressing the problem by answering the following questions:
  - Who are the stakeholders required in addressing the identified problem?
  - What is the level of influence of each and every stakeholder in addressing the problem?
  - What is the level of interest of each and every stakeholder in addressing the problem?
  - Draw a table/matrix on a large sheet of paper and arrange the stakeholders accordingly.

- Under the **Training Module on Stakeholder Participation and Engagement**: Participants identified constraints and challenges for stakeholder participation in basin management in the respective basins/sub-basins. They then further brainstormed on possible solutions to enhance/improve stakeholder involvement in basin management.

- Under the **Training Module on Trans-boundary Stakeholder Cooperation and Engagement:** BSOs were requested to analyse their role in trans-boundary cooperation by brainstorming on the following: what should be the generic activities of a BSO, what could be the specific basin related activities and what could be the activities related to trans-boundary cooperation in the Cuvelai Basin?

- Under the **Training Module on Trans-boundary Stakeholder Cooperation and Engagement**:

  Participants enhanced their critical thinking skills through an exercise on trans-boundary stakeholder engagement and cooperation on the construction of a dam upstream of the Ruacana Falls on the Kunene River.

  There is a rumour that a dam is to be constructed upstream of the Ruacana Falls on the Kunene River

  - How are you going to deal with the situation in your capacity as a BSO?
  - How are you going to work together with the stakeholders to give input/contribute?

- Under the **Training Module on Accessing Technical, Management and Financial Assistance**: Participants were given an exercise on accessing technical, management and financial support for a project. The BMC wants to organise a World Water Day event/Solid Waste Clean-up Campaign to sensitize the community to IWRM practice and the advantages of community participation.
  - As a BSO/BMC, what would you do to design the event with regard to venue, activities, stakeholders and their participation, sponsorships and arrangements to access technical, financial, and management resources to make a success of the proposed activities.

- Under the **Training Module IWRM and Conflict Management**: Participants were given an exercise on water conflict resolution and cooperation. In your capacity as a BSO/BMC:
  - What are the three top water management issues in the sub-basin/ basin that you work in?
  - Identify the conflicts and how they are being addressed.
  - Select one conflict and explain what you would do to facilitate the resolution of any one of the conflicts

These are some of the examples on how participants enhanced their interpretation and critical thinking skills. Details can be found in the modules and some of the training reports.

2. Use of monitoring results in decision making

Why and what to monitor?

Monitoring of water related parameters such as water quality and quantity is key in any basin. Monitoring of water supply and its health should be of concern to BMCs. The BMCs are supposed to actively use the monitoring results and knowledge in decision making thus ensuring water sustainability in their respective basins.

Where to get monitoring information from?

Monitoring of water resources is taking place but not integrated to provide an overall picture of water resources and their management. At DWAF, separate databases on water exist, namely on: Surface water at the Division of Hydrology, Groundwater Database (GROWAS) at the Division of Geohydrology and water quality at the Division of Water Environment. To enable economic water accounts,

NamWater provides information on water volume, distribution route, cost of supply and User-Charged Levied. Data collected for hydrological, geohydrological and water quality purposes are kept separately in different databases. This is undesirable because it does not serve the purpose of facilitating and supporting decisions concerning water resources management by offering one 'piece' of information at a time. In terms of accessibility, water use information is provided upon request though it takes a long period. Moreover, information on water use per sector is available in the economic water accounts report and state of the environment report for water in Namibia. Furthermore, there are estimates on water use per catchment in the economic water accounts and the IWRM Plan reports. The available water use information is based on administrative records from DWAF, NamWater, Ae Gams Data (Company involved in costing systems for local authorities) and some Municipalities with the majority of water use records based on water meter readings.

NamWater and DWAF have data on raw and bulk water, while Local authorities have data on retail water. In some cases, the data is reliable, consistent and accessible and in some cases accessibility is a problem. Data on current water demand, supply and projections are available from NamWater, DWAF and in the economic water accounts.

Information on waste discharge is available but to a limited extent because there is lack of complete monitoring of the whole country due to limited capacity and personnel.

What is the role of the BMC in monitoring?

One of the functions of the BMCs is "to monitor and report on the effectiveness of policies and measures in achieving sustainable management of water resources and resource quality in its water management area". It is important to clarify what this function really implies. Basically, the role of BMCs is not to necessarily undertake the monitoring on the ground, but rather to use the information gathered during monitoring in decision making and effectively communicating it to the responsible institutions for action.

The BMCs can use the monitoring results and information from various databases and stakeholders to advise the Minister of MAWF in terms of water allocation based on the sustainable yield of water sources, thus avoiding overexploitation. Water allocation is done by DWAF through a permit allocation system, thus the BMC should be consulted for advice and recommendations during the permit evaluation process, because they are the people on the ground. Most importantly this will give them a sense of ownership and responsibility over their water resources. In doing, the BMCs can use information from the economic water accounts which provides information on water demands. In areas where there are active WMBs e.g. Karst Water Management Body, water monitoring (quantity of water abstracted) is incorporated into the system and that gives room for evaluation of whether permit holders are complying with the permit conditions or not.

Currently, some of the Water Point Committees (WPCs) in the CEB are monitoring their water consumption as well as the revenue generated. Such information can be submitted to the BMC to guide decision making. Consequently the BMC would then ensure that such information gets into the national databases. A similar approach is proposed for all other parameters that are monitored by the various stakeholders in the basins.