Building capacity in Botswana’s water sector

The Stockholm International Water Institute (SIWI) and the Botswana Department of Water Affairs (DWA) are jointly implementing a two-year capacity building programme to support the restructuring of Botswana’s water sector.
An arid country with a dispersed population, Botswana faces major challenges in water resources management and service provision. The country’s dry climate is exacerbated by high rainfall variability, with years of drought commonly being followed by flooding in local areas. The Government of Botswana has recently reviewed its national water master plan and embarked on mission to restructure the country’s water sector.

Over the past year, SIWI has worked with Botswana’s government to develop a series of training courses, which will run from March 2012 - December 2013. This programme is jointly funded by the Swedish International Development Cooperation Agency (Sida) and the Ministry of Minerals, Energy and Water Resources, Botswana.

### PROGRAMME MANAGEMENT

The programme is administered through a Management Team under the guidance of a Steering Committee. The steering committee is the decision-making body of the programme. It meets every six months to evaluate the programme and make recommendations for its improvement.

The programme management team consists of two representatives of SIWI and two from DWA. Additional members are co-opted as needed to give input into design of particular courses and selection of participants.

### AN EIGHT COURSE MODULAR PROGRAMME

The capacity building programme is made up of eight courses. Each course consists of three one-week modules, spaced about two months apart. This modular structure enables participants to more effectively integrate their learning into their day-to-day work, and avoids long absences of essential staff from their duties.

<table>
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<tr>
<th>Course 1: Corporate transformation and change management</th>
<th>Course 2: Integrated water resources management</th>
<th>Course 3: Research and benchmarking methodologies</th>
<th>Course 4: Water resources policy</th>
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<td>The process of restructuring the Botswana water sector requires the re-deployment of staff into new institutions and/or roles, and may be fraught with uncertainty and resistance to change. Thus, it is essential that sector organisations are capacitated to effectively perform their revised functions. This course comprises the following elements:</td>
<td>This course will support the development and implementation of the National IWRM Plan, and is targeted at Department of Water Affairs (DWA) and external stakeholders who are engaged in the national IWRM planning process. The course covers:</td>
<td>DWA intends to strengthen its capacity to conduct research, in order to achieve its vision of becoming a global leader in water resources management. The Department also intends to benchmark its own systems and processes against international best practice. This course will build capacity in:</td>
<td>As the Department seeks to revise the existing policy and legislation that guide the sector, it is important that key role-players develop a clearer understanding of the changes required and how to implement them. This course contains the following elements:</td>
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<td>- Botswana water sector reforms – objectives, rationale and opportunities analysis</td>
<td>- IWRM – concepts, principles and approaches;</td>
<td>- Research methodology</td>
<td>- National water law and policy – an overview of the existing policy and legal framework of the Botswana water sector;</td>
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<td>- Organisational change management strategies</td>
<td>- Catchment management</td>
<td>- International best practice benchmarking</td>
<td>- Water resources policy development and analysis</td>
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<td>- Water sector-specific project planning and management</td>
<td>- Allocation of environmental flows</td>
<td>- Bridging research and policy</td>
<td>- Approaches to intragovernmental policy harmonization</td>
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<td>- Leadership skills for the water sector</td>
<td>- Water use efficiency</td>
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<td>- Socio-economic analysis in water resources management</td>
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<td>- Transboundary water management</td>
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<td>- Cost-benefit analysis at the macro-economic level</td>
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Course 5: Integrated data management

The collection, interpretation and communication of hydrological, hydrogeological and climatic information are essential for water resource management. This course will be presented in collaboration with the Swedish Meteorological and Hydrological Institute (SMHI), on the following topics:

- Data collection and collation for hydrological modelling
- Hydroclimatic modelling for flood and drought forecasting
- Integrated data management
- Water quality monitoring
- Biomonitoring
- GIS and remote sensing for water resources management

Course 6: Climate change and variability in water resources management

Climate change and variability complicate water resources planning, as future climatic conditions can no longer be predicted based solely on historical patterns. SMHI will collaborate with SIWI in presenting this course on the following topics:

- Climate change mitigation
- Climate change adaptation
- Methods for assessing climate-related risk
- Response mechanisms for climate-related risks

Course 7: Water allocation and management

This course will be particularly relevant to the members of the independent Water Resources Council, who will be responsible for the pricing and allocation of water for different uses. DWA will provide technical support to the Council, and has identified the following capacity building needs:

- Water conservation and demand management
- Conjunctive surface and groundwater management
- Environmental-economic accounting for water
- Water pricing and allocation strategies
- Compensation for ecosystem services

Course 8: Wastewater management and reuse

The Water Utilities Corporation (WUC) is embarking on development of new wastewater collection and treatment systems. This course will be offered in collaboration with CIT Urban Water Management AB, a Swedish organisation specialising in providing support for strategic planning and development of urban water and wastewater systems. The course will consist of the following modules:

- Fundamentals of centralised wastewater treatment
- Fundamentals of decentralised wastewater treatment
- Wastewater reuse
CAPACITY BUILDING AT
THE STOCKHOLM INTERNATIONAL
WATER INSTITUTE

The Stockholm International Water Institute (SIWI) is a policy institute that contributes to international efforts to ensure the sustainable use of the world’s water resources. SIWI conducts original studies, develops new tools, and provides in-depth analysis that enables policy-makers to make informed decisions on water issues that are based on the latest scientific research. SIWI works with a range of partners to develop and implement high-impact and relevant capacity building programmes for improved water management outcomes. Courses can be tailored-made to basin-, country- or region-specific programmes based upon the specific needs from partners. Over the past half-decade, we have provided training to over one thousand people from eighty-nine countries who have returned to help strengthen their institution’s ability to deliver on their mandates.

BUILDING A KNOWLEDGE SERVICES HUB IN BOTSWANA
SIWI will support the DWA in establishing a Knowledge Services Hub, which will be a national centre of excellence, conducting applied research, monitoring local and global trends in water management, and providing policy advice to the Department. The Hub will also facilitate cross-learning among sector institutions. It is envisaged that the Hub would continue the capacity building process initiated though this partnership.

www.siwi.org/capacitybuilding