



Framework Programme for
Research, Education and
Training in the Water Sector

sharing KNOWLEDGE

BUILDING capacity

Phase III proposal 30 September 2011

Proposal FETWater Phase III, 2012 to 2015

1. GLOSSARY

AGM	Annual General Meeting
CMA	Catchment Management Agencies
DWA	Department of Water Affairs
DWAF	Department of Water Affairs and Forestry
FUST fund	Flanders UNESCO Science Trust Fund
FETWater	Framework Programme for Research, Education and Training in the Water Sector
IWRM	Integrated Water Resource Management
NWA	National Water Act
NWRS	National Water Resources Strategy
RDM	Resource Directed Measures
SADC	Southern African Development Communities
SETA	Sector Education and Training Authority
SUMAMAD	Sustainable Management of Marginal Drylands
UNESCO	United Nations Education, Science and Cultural Organisation
WMO	World Meteorological Organisation
WRC	Water Research Commission

2. INTRODUCTION

Significant implementation challenges have been created by the national water policy and legislation in South Africa for the necessary expertise in water resource management. A new set of competencies is central to the achievement of the goals of the water policy and legislation. The National Water Act (NWA), Act 36 of 1998, requires immediate attention to the full scope of integrated water resource management (IWRM), including its conservation, protection, ecological, economical and social dimensions in order to ensure equity and sustainability. Overarching skills such as integration is largely lacking in South Africa mainly because the water resources have been developed in the past without adequate consideration of the integrated management and sustainability of the water resource.

One of the most comprehensive training and capacity needs audit undertaken was conducted in 1998 by an expert team from the then Department of Water Affairs and Forestry (DWAF), United Nations Education, Science and Cultural Organisation (UNESCO) and the World Meteorological Organisation (WMO). They assessed the existing research education, training and capacity in the water sector in South Africa and compared it with the research education, training and capacity needs for water resource management in South Africa. This task was commissioned by the then Minister of Water Affairs, Prof Kadar Asmal. The team submitted a report in which they recommended *inter alia* the establishment of the Framework Programme for Research, Education and Training in the Water Sector (FETWater) with strong emphasis on the method of training and capacity building networks.

FETWater was established in 2002 through the initiative of the then DWAF, the involvement of UNESCO and the financial support provided by the Flanders UNESCO Science Trust Fund (FUST).

FETWater Phase I, 2002 to 2005, and Phase II, 2007 to 2010, addressed effective cooperation and the transfer of knowledge related to integrated water resource management, a requirement for the implementation of the NWA (Act 36 of 1998).

FETWater Phase I successfully established three networks, namely the Resource Directed Measures Network, the Groundwater Network and the Beneficial Use of Water Network. The networks succeeded in encouraging people to work together and share knowledge. The networks cooperated with almost all the universities in South Africa and developed training material and short courses to enable professionals in the water sectors to do their work.

FETWater Phase II, 2007 to 2010, continued to support existing networks and the creation of new networks that contributed to integrated water resource management. Four new networks were supported, namely the Rivers and Wetlands Network, the Catchment Management Agency (CMA) Expertise Development Network, the CMA Strategy Development Network and the Water-related Disaster Management Network. FETWater Phase II served as a vehicle through which users/clients could access key stakeholders (academics) to help identify education, training and capacity building needs and priorities by making use of networking. The national priority areas formed the basis for effective network co-operation to take place as part of the established FETWater programme. The priority areas complemented other education, training and capacity building activities in South Africa.

FETWater developed an operational framework for capacity building in water resources in South Africa within which:

- Structured consultation between the universities, research institutions, public and private sector and the services dealing with water management was made possible;
- Structured networking between government, research institutions, tertiary institutions and the private sector was set up to ensure the transfer of optimum knowledge in a number of water related fields.
- The FETWater programme has supported the evolution of training networks that are responsive to critical national needs in integrated water resource management (IWRM).
- Successful FETWater networks served as models for the establishment of new ones.
- The seven networks that were established by the FETWater programme during Phase I and Phase II, were addressing the capacity shortages in integrated water resource management in South Africa.
- Capacity audits were conducted by the Resource Directed Measures Network, the Beneficial Use of Water Network and the Water-related Disaster Management Network.
- The Sustainable Management of Marginal Drylands (SUMAMAD) project has expressed an interest in the developments and in some of the deliverables of FETWater, especially the groundwater training manual.
- Seven annual FETWater meetings were held in South Africa with the water sector stakeholders and experts, UNESCO and the FETWater donor partners.
- Young scientists from several SADC institutions were involved in common targeted training projects.
- FETWater continued with its established contact with CapNet and WaterNet.

FETWater underwent an external evaluation in 2007 as part of the overall Flemish Programme with UNESCO and in 2009 FETWater appointed Dr Nozi Mjoli and Mr Lewis Jonker to undertake an impact assessment on both Phase I and Phase II. The external evaluators assessed both FETWater Phase I and Phase II as highly successful. The programme accomplished almost all of its set objectives. The evaluators stated that they were very satisfied with the FETWater model, realising that networking is a very important method to use for capacity building and we should be willing to continue funding.

The sustainability of the programme lies within the training and capacity building as well as the many training courses, training manuals and curriculum programmes that were developed by the FETWater programme.

The 7th annual general meeting of FETWater Steering Committee held in August 2011 brought forth new capacity building needs and requirements as informed by new challenges in the water management landscape. The new capacity building needs and requirements take into consideration the following salient issues:

- Advancement of technologies in the water space
- Climate change and variability

- Strengthening of water regulatory regime and development of regulatory tools
- Local government capacity building using water as a catalyst for economic growth and development
- Developing stronger inter-governmental relations
- Specialised skills and knowledge to manage water taking into account the whole value chain (i.e. strengthening the interface between water resources and water services) and more importantly indivisibility of the hydrological cycle.

It is therefore critical that Phase III of FETWater appropriately addresses these new capacity building needs and requirements to ensure relevance, viability and sustainability especially when there are so many other government priorities that require financial resources. In addressing the capacity building needs and requirements, the networks to be established for Phase III will be informed by or focus on the themes or priorities (water resources infrastructure, monitoring and assessment, water resources planning, regulation, water use and services, and institutions and governance) set out during the 7th annual general meeting of FETWater held in August 2011. It is also important that there are synergies between FETWater and other capacity building initiatives such as UNESCO Chairs and Category 2 water centres to be hosted in South Africa, skills development driven from Water Sector Leadership group, Department of Science and Technology initiatives (e.g. ACCESS – Applied Centre for Climate and Earth System Science), etc.

2.1 Summary of funding for FETWater Phase I, 2002 to 2005:

Description	Allocated funds	Percentage	Actual contribution	Revised Percentage
FUST Fund	US\$ 207 900	43%	US\$ 207 900	30%
South African government	US\$ 274 500	57%	US\$ 486 035	70%
Total costs	US\$ 482 400	100%	US\$ 693 935	100%

2.2 Summary of funding for FETWater Phase II, 2007 to March 2011:

Description	Allocated funds	Percentage	Actual contribution	Revised Percentage
FUST Fund	US\$ 511 500	49%	R 5 470 652.00	32%
South African government	US\$ 521 000	51%	R11 391 000.00	68%
Total costs	US\$ 1 032 500	100%	R16 861 652.00	100%

The South African government through the Department of Water Affairs (DWA) had contributed additional funding in both Phase I and Phase II to expedite the implementation. This was a clear indication of the commitment of the SA Government to the FETWater programme.

The Water Research Commission (WRC) acted as an Implementing Agent for DWA in Phase II.

3 CONTINUATION OF THE FETWATER PROGRAMME

During the 7th Annual General Meeting (AGM) held 23rd to 26th August 2011 in Pretoria, South Africa, the consensus was for the South African government to enter into agreement again with UNESCO on Phase III of the FETWater Programme. Critical basis for the agreement were, among others, success of the two previous phases of the Programme, the need to expand the programme in the water sector, the willingness of the two organisations/partners to support capacity and skills issues in the water sector for sustainable development.

It is envisaged that mechanisms for review and alignment of support to water management institutions will be facilitated through participation of networks in regional structures thereby consolidating the Water Resources/Water Services interface and capacity building support.

A national capacity audit in the water sector in South Africa is being undertaken and the results and outcomes will influence Phase III to address the new identified needs of the water sector. The most crucial directive will however be the National Water Resources Strategy (NWRS). FETWater Phase III will be guided by the priorities set in the National Water Resources Strategy for the next four years.

3.1 Structure

FETWater Phase III will be structured as follows:

- Training and capacity building networks
- Sustainability programme

3.1.1 Training and Capacity Building Networks

- FETWater will continue establishing and supporting training and capacity building networks in accordance with the FETWater Guideline;
- The existing networks will be revised in terms of their strategic value in the framework of the current needs of the water sector;
- New networks will be established based on the revised needs assessment (conducted under 3.1.2); the priorities as set out in the National Water Resource Strategy and the priority areas identified during 7th FETWater annual meeting, August 2011;
- Potentially new networks may be established to relate to other water related programmes (national and international) such as the UNESCO'S International Hydrological Programme (IHP) flagship programmes in South Africa.

- Network activities will be conducted based on the needs of the water sector, with DWA as the most important role player in the sector. It will be based on the priorities as set out in the Skills Audit that will be conducted, the National Water Resources Strategy and the priority areas identified during the 7th FETWater annual meeting. Networks will be encouraged to involve other relevant departments, such as Science and Technology and Environmental Affairs.
- Training activities should target government officials as well as professionals in the water sector.
- The FETWater Programme will actively encourage government's participation in network activities to foster government's ownership of the FETWater programme.
- FETWater will, through its support to training networks, assist the transformation process in the water sector by building the capacity of previously disadvantaged groups and individuals.

3.1.2 Sustainability of the programme

Sustainability of the FETWater programme is dependent on the extent to which network products are meeting to sector requirements. To ensure continued support beyond donor funding, Phase III of the programme will focus on improved alignment with sector skills requirements, certification of training outputs, and the marketing of services and products.

To improve alignment with sector skills requirements, a database will be established to maintain contact with alumni through course evaluation and tracer study mechanisms. In addition FETWater will draw on the national capacity audit which will be completed in 2012.

To ensure accreditation and uptake of the courses developed by the networks, FETWater has made contact with the Water Chamber at the Energy and Water SETA with regard to IWRM training. There is general agreement that the development of IWRM unit standards for existing short courses should be fast-tracked as this will unlock funding via the Sector Education and Training Authority (SETA) mechanism. In this regard, FETWater will facilitate the following as part of the Phase III:

- Establishment of an experts group for IWRM training with links to the SETA. This will be done in close collaboration with CapNet who has already done work in this regard.
- The development of unit standards and skills programmes from existing short courses for submission to the SETA and registration with SAQA.
- Support the development of comprehensive plan for career paths and related qualifications to contextualize training needs for Water Management Agencies in South Africa. This will be done through the Skills audit.
- Further involvement of Flemish and other international and other experts in the quality assessment of FETWater products will be sought, in order to ensure that these products will be peer reviewed by the Flemish counterparts or other relevant experts.

- A special publication series will be established to ensure proper dissemination of the FETWater products. It will be sought to link this series to the IHP publication series.
- The FETWater website (www.fetwater.co.za) will be improved to reflect all the products developed by FETWater to ensure its availability.

3.2 Program partners

South African government represented by DWA
Water Research Commission
Water Institute of South Africa
Universities/ UNESCO Chairs
Flemish government
UNESCO Windhoek Office
UNESCO IHP/ National Commission for UNESCO

3.3 Proposed FETWater Phase III Participants

The creation of networks is aimed at optimizing the utilization of limited human and financial resources to create the required capacity in the water sector in South Africa. Funding for the continuation of FETWater Phase III will bring together individuals and institutions requiring adequately trained individuals and those individuals and institutions who can collectively supply the training. To build and sustain sufficient capacity will require the involvement of individuals and institutions involved in the implementation of integrated water resource management. They include the following:

- DWA, Water Management Institutions
- All spheres of government, national, provincial and local
- Professional bodies
- Private sector
- Civil society
- Water User Associations, and
- Catchment Management Forums.

The training and infrastructure required to deliver the training can be supplied by, *inter alia*:

- Tertiary institutions
- Research institutions
- Private sector

3.4 Expected Outcomes and Outputs for the period 2012 to 2015

The expected outcome for FETWater Phase III will be to strengthen the capacity of the South African water sector in integrated water resources management through networking.

The outputs are:

- **Effective networks** will be supported that will address integrated water resource management;
- **A strong regional collaboration** in the implementation of IWRM through training and research;
- The programme will draw from its internal capabilities and external environment to build a **sustainable FETWater programme**;
- Personnel in the water sector will be trained and skilled in the identified thematic areas to **do their job efficiently**;
- **Coordinated effort** will be established to address challenges in Water resources infrastructure; Monitoring and assessment; Water resources planning; Regulation; Water Use and services; and Institutions and Governance.

4 FUNDING

FETWater Phase III will be supported mainly by direct and indirect contributions to the programme by the Government of South Africa, as well as by UNESCO through the Flanders UNESCO Science Trust Funds (FUST).

Government of South Africa:

- Department of Water Affairs (DWA) will continue to be the main funder of FETWater. DWA funding will continue to be targeted to conducting the activities of the networks, as well as the coordination and management of the FETWater programme.
- Funds will be transferred from DWA to an Implementing Agent in advance, to ensure 12 months contracts with the Networks.
- Since FETWater activities will be extended beyond DWA, additional funding from participating departments will be sought by demonstrating the usefulness of FETWater beyond DWA.

FUST funds:

- The FUST funds will support FETWater Phase III in its move towards sustainability and total independence from donor funding.
- The FUST funds will be devoted to increasing regional collaboration and enable the transition to full sustainability of FETWater.
- UNESCO will continue to participate in the FETWater Steering Committee.

4.1 Estimated budget requirements for FETWater Phase III

Table 4.1 Estimated budget for the continuation of FETWater Phase III activities.

Activity	2012/13	2013/14	2014/15	2015/16	TOTAL
Network 1	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Network 2	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Network 3	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Network 4	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Network 5	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Network 6	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Network 7	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Sub Total:					
Funds for networks	\$700 000	\$700 000	\$700 000	\$700 000	\$2 800 000
FETWater website development	\$20 000	\$20 000	\$20 000	\$20 000	\$80 000
Alumni database and tracer studies	\$80 000	\$80 000	\$80 000	\$80 000	\$320 000
Publication series	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
FETWater workshops and annual meetings	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
FETWater management and administration	\$100 000	\$100 000	\$100 000	\$100 000	\$400 000
Sub Total:					
Funds for other activities	\$400 000	\$400 000	\$400 000	\$400 000	\$1 600 000
Flemish and UNESCOs participation	\$25 000	\$25 000	\$25 000	\$25 000	\$100 000
UNESCO time contribution	\$35 000	\$35 000	\$35 000	\$35 000	\$140 000
Sub Total:					
UNESCO /Flemish	\$60 000	\$60 000	\$60 000	\$60 000	\$240 000
TOTAL	\$1 160 000	\$1 160 000	\$1 160 000	\$1 160 000	\$4 640 000
FUST fund contribution	\$360 000	\$360 000	\$360 000	\$360 000	\$1 440 000
South African contribution	\$800 000	\$800 000	\$800 000	\$800 000	\$3 200 000

Notes: The currency is provided as US Dollars. The exchange rate of ZAR7 per US Dollar was used as guidance.

A contingency of 5% of the budget should be built into the proposed budget to make provision for fluctuation of the currency and for unexpected costs in the project.

This proposal is requesting funding from the Flemish Government and in terms of time contribution from UNESCO to an amount of US\$1 440 000, which constitutes 31% of the total estimated budget.

The proposal indicates a financial contribution from the South African government of US\$3 200 000 which constitutes 69% of the total estimated budget.

Other sources of financial support in South Africa will be sought for the extension of the programme.

5. CONTACT IN SOUTH AFRICA

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