FETWATER

The Framework Programme
for Research Education and Training
in Water (FETWater)

A Guideline

An initiative of:
Department of Water Affairs and Forestry
and
the Water Research Commission
In collaboration with
UNESCO
and
the Flemish Government

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FETWATER
The Framework Programme for
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BACKGROUND

The Framework Programme for Research Education and Training in Water (FETWater) is a programme that supports training and capacity building networks in integrated water resource management in South Africa. This document describes the programme and serves as the Second Edition of a guideline to the programme. This Guideline document was approved by the Water Resources Functional Management Committee of the Department of Water Affairs and Forestry, South Africa and the Management Committee of the Water Research Commission of South Africa.

The document outlines the background to the establishment of the framework programme, the vision, aims and objectives of the framework programme, and also of the programmes established by FETWater. It also provides guidelines for establishing networks as a method for effective cooperation in research education, training and capacity building. The decision-making structures of FETWater are also described.

This Guideline synthesises several years of consultation, collaborative planning and work between the Department of Water Affairs and Forestry, the United Nations Educational Scientific and Cultural Organisation (UNESCO), the Flemish Government, the Water Research Commission and numerous education and training providers in South and southern Africa.

Acknowledgements

The Department of Water Affairs and Forestry and the Water Research Commission wish to acknowledge with appreciation the contribution of all those individuals and organisations that have been involved in the planning and establishment of FETWater. Special mention needs to be made of the initiative taken by Eberhard Braune from the Department of Water Affairs and Forestry (DWAF) in inviting the UNESCO/WMO to assist DWAF in the training needs assessment. In this regard Dr Henk van Vliet, Chief Director in the Department of Water Affairs and Forestry deserve a word of appreciation for his initiative to start with the implementation of the programme and the appointment of a coordinator. A special word of thanks for the leading role that Professor André van der Beken from the Free University of Brussels played in the UNESCO/WMO Assessment Mission that took place in 1998. In particular, appreciation is due to Professor Janos Bogardi of UNESCO and Professor Ronny Verhoeven of the Gent University, Belgium for continuous information, advice and support during the establishment of FETWater, and to the Flemish Government and UNESCO for financial support.

Comment on this document

It is envisaged that this Guideline document will remain valid as a guiding document for FETWater for a period of one year after which it will be reviewed and amended where necessary based on practical experience. Meanwhile, comments on this document can be forwarded to:

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1.   INTRODUCTION

The National Water Act (Act 36 of 1998), and the National Water Policy that preceded it, have brought about fundamental new thinking of the integrated approaches to water resources management in South Africa. The emphasis changed from development of new water resources to careful management of existing resources. Water managers are required to recognise and balance the basic human needs of present and future generations, the need to protect water resources, the need to share some water with other countries and the need to promote social and economic development through the use of water (National Water Act 1998: Preamble to Chapter 1).

Significant challenges have been created by the new policy and legislation for the entire water sector. A new set of competencies and refreshing of current competencies is central to the achievement of the goals of the national water policy and legislation. The policy explicitly recognises that the single most important factor in achieving wise and efficient water resource management is the "training and development of the full potential of the people who will work in this sector … in all relevant organisations and agencies, at all levels." (White Paper on National Water Policy, April 1997)

The process of implementation of the National Water Act requires the gradual devolution of authority and responsibility to lower level institutions, including catchment management agencies (CMAs) and local government. A broad base of capacity will be needed at operational levels, both at national government and within regional institutions. Training and capacity building at local government and CMA levels are seen as a key feature in the water sector. The shift in emphasis from development of water resources to management of water resources, and the strong commitment to delivery of basic services, requires a range of new skills and competencies for water professionals.

The Framework Programme for Research Education and Training in Water (FETWater) is a programme to effectively cooperate in education, training and capacity building initiatives to achieve integrated water resources management.

FETWater is a programme that supports training and capacity building networks related to integrated water resource management in the water sector. FETWater will provide institutional support and financing in the form of seed funding to encourage the creation of training networks as a method for effective co-operation between universities, research institutions, and the public and private sectors.

1.1   Background

In 1996 the Department of Water Affairs and Forestry requested support from the United Nations Educational Scientific and Cultural Organisation (UNESCO) and the World Meteorological Organisation (WMO) to assess education and training needs for integrated water resources management in South Africa. These two organisations agreed, and the assessment was conducted in 1998 at national, provincial and community levels.

The assessment evaluated the education and training needs and capacities of the Department of Water Affairs and Forestry and linked it with the needs of other government departments, non-governmental organisations and the private sector. The assessment took into account various imperatives, including South Africa being a country in transition, its affirmative action policy, staff and career development concerns, capacity building required for achieving sustainable development, and the need to link and interact with efforts by southern Africa and the international community.

The conclusions of the assessment stated *inter alia* that:

- The implementation of South Africa's National Water Act would be seriously impaired unless human resource needs and related competencies in the water sector could be timely met.
- Recent concepts in water resources management have direct implications for South Africa's integrated water resources management approach and education and training would be required for its practical implementation.
- Opportunities to further links with southern Africa and the international community to have South Africa's training, education and capacity building needs met should be explored to the fullest.
- Although the education and training capacity of South Africa's tertiary institutions is relatively high, many gaps, weaknesses and threats were identified, relating mostly to:
  - A gap in structured consultation between water academics, the Department of Water Affairs and Forestry and other employers about competency needs;
  - A gap in structured networking among water academics about curricula and employers' needs;
  - Uncoordinated proliferation of *ad hoc* education and training and continuing education and training products and their questionable cost-effectiveness;
  - Limited links with the private sector; and
  - Bureaucratic approaches to qualification, certification and accreditation.

The conclusions of the assessment stimulated the Department of Water Affairs and Forestry to embark on a concerted process of establishing a framework programme for effective cooperation for the provision of education, training and capacity building needs in the water sector, briefly outlined below.

1.2 Process to establish the FETWater Framework Programme

Since the 1998 education and training needs assessment, various initiatives towards the establishment of FETWater took place. These included:

- Consultative meetings with South African academics, research institutions, private sector and senior officials in the Department of Water Affairs and Forestry took place in March 2002, to discuss networks as capacity building tools and to develop a plan for implementation of this concept in South Africa.
- A workshop took place in July 2002 focussing on the development of a training and capacity building model for South Africa.
- In September 2002 a workshop with the universities and technikons in South Africa adopted the first programme, namely Water Environment Management and agreed on the priority areas.
- A national audit of capacity for determination of resource directed measures (RDM) for protection of water resource in South Africa was undertaken in December 2002 to establish the first pilot training network. All the universities and technikons in South Africa were approached to participate in the audit.
- The first FETWater Annual meeting took place January 2003 in Stellenbosch with participation of a wide range of stakeholders and potential partners for the first pilot network. The global network CapNet and the SADC network WaterNet were also present and support was received from UNESCO and the Flemish Government. The second FETWater Annual meeting took place in January 2004 in Lamberts Bay. FETWater reported to its stakeholders on progress with implementation. Two networks were established and started with training courses. A proposal for a third network was accepted.

An agreement was signed between UNESCO, the Flemish Government and the Department of Water Affairs and Forestry in 2002 to start with the implementation of the proposed Framework Programme. The agreement included a Work Plan and financial contributions from the three main programme partners.

In February 2002, Ms Annette Hugo was appointed by the Department of Water Affairs and Forestry as the Executive Coordinator for FETWater. She received training in five European countries in the use of networks as a method of knowledge transfer in training and capacity building. The training was based on European experience and lessons learned with the establishment and successful operation of networks.

An Interim Management Committee was created in June 2002 to assist with the establishment of a broad framework programme, within the specific context of the South African circumstances. The members of the Interim Management Committee consisted of representatives from the Department of Water Affairs and Forestry, the Water Research Commission, the Council for Scientific and Industrial Research and consultants from the private sector.

The Interim Management Committee decided to develop the Water Environment Management (WEM) Programme as the first programme and focus area for FETWater with the emphasis on the environmental management of the water resource. During 2003 FETWater approved its support to two networks, namely the RDM Training Network and the Groundwater RDM Training Network.

During 2003 the Interim Management Committee also finalised the guidelines for the establishment of the FETWater structures, namely the Steering Committee (a policy and decision making body) and the Executive Committee.

2. FETWATER VISION, AIMS, OBJECTIVES AND FUNDING

The long-term vision, aims and shorter-term objectives of the Framework Programme for Research Education and Training in Water are stated in this section. Recipients and service providers are also noted, as well as financial support. This document talks specifically to the first phase of FETWater, namely the period 2002 to 2005.

2.1 Vision

The long-term vision of FETWater is to provide, through effective and co-operative networking, appropriate capacity building, training and education opportunities to practitioners in the water sector in South Africa to empower them to solve water-related problems and to manage water resources in an integrated way.

2.2 Aims

The aims of FETWater are to:

- create programmes within the FETWater framework that will stimulate the creation of networks for water-related knowledge transfer, generation and dissemination to achieve integrated water resource management;
- establish effective cooperative networking among capacity builders, employers and employees in the public and private sector, where problems could not be solved by individuals;
- strengthen partnerships and networking throughout the sector to capitalise on the existing strong areas and to supplement the weak areas; and
- foster effective cooperation between government, research institutions and training institutions.

It is foreseen that other programmes will also be developed within the FETWater framework.

2.3 Objectives

The objectives of FETWater are:

- to provide opportunities to share skills and to develop effective co-operative approaches to building human resource capacity related to integrated water resources management;
- to assist the transformation process in the water sector by building the capacity of previously disadvantaged groups and individuals;
- to provide and facilitate capacity building, training and education opportunities in the water sector;
- to financially support networks that reflect the general principles and priorities identified within FETWater and for which no or insufficient funding is available elsewhere;
- to strengthen national, sub-regional and international co-operation of academic and research institutions and other human capacity development service providers to work towards a common goal;
- to contribute to unity, understanding and mutual respect within the sub-region;
- to support and complement existing national initiatives, programmes and activities in line with the identified needs;
- to support innovative initiatives to address identified capacity building and training needs in the water sector.

FETWater will capitalise on existing education, training and capacity building activities in the water sector, but will also strive to bring about new activities that are characterised by:

- being priority and demand driven;
- integrated approaches to improve interdisciplinary practice;
- bringing together the service providers and the recipients of the intended knowledge transfer as well as the service providing institutions;
- strengthening the research and service capabilities of the knowledge generating and disseminating partners in different networks.

2.4   Recipients and service providers

Recipients of FETWater's education, training and capacity building outputs are institutions such as the Department of Water Affairs and Forestry, the Water Research Commission, catchment management agencies, Water Boards, other government departments and other water management institutions.

Education, training and capacity building service providers include universities, research institutions, organisations in the private sector and the public sector (other government departments). Service providers will have the opportunity to submit proposals to FETWater for the establishment of education, training and capacity building networks based on long-term co-operative networking between various providers.

2.5   Phased approach, 2002 to 2010.

FETWater decided to develop a series of programmes that will eventually satisfy its objectives of efficient knowledge transfer to support integrated water resources management. This phased approach started off in 2002 with the development of the first programme, namely the Water Environment Management Programme. This Programme will focus on the environmental management of the water resource in accordance with the National Water Act. During the second phase, 2006 to 2010, FETWater will support networks in integrated water resource management.

2.6   Funding and support

The FETWater Programme is being financially supported by the Department of Water Affairs and Forestry, the Water Research Commission, UNESCO and the Flemish Government.

The current agreement for financial support sees this support continuing for the period 2002 to 2005. Within each year, the envisaged financial involvement of the Flemish Trust Fund, UNESCO and Government of South Africa funding are indicated in the breakdown according to the planned activities.

In addition, the Department of Water Affairs and Forestry provides and houses the FETWater Executive Coordinator and administrative support. The Water Research Commission contributed to the financial support of specific activities of newly created networks.

The Flemish Government has indicated its interest to support FETWater for a second phase of financial support for the period 2006 to 2010.

3.   FETWATER STEERING, MANAGEMENT AND SUPPORT STRUCTURES

A programme of the nature of FETWater, aiming to facilitate the establishment of national and sub-regional collaborative networks, and involving a range of role players, requires an efficient steering, management and support structures. These structures are shown in Figure 1 and outlined in this section.

3.1   FETWater Steering Committee

The FETWater Steering Committee is the strategic management and decision-making body of FETWater. The FETWater Steering Committee will be established with a long term lifespan and to be broadly representative of the water sector.

This section outlines the aims, objectives, membership and meetings of the Steering Committee, and responsibilities and costs.
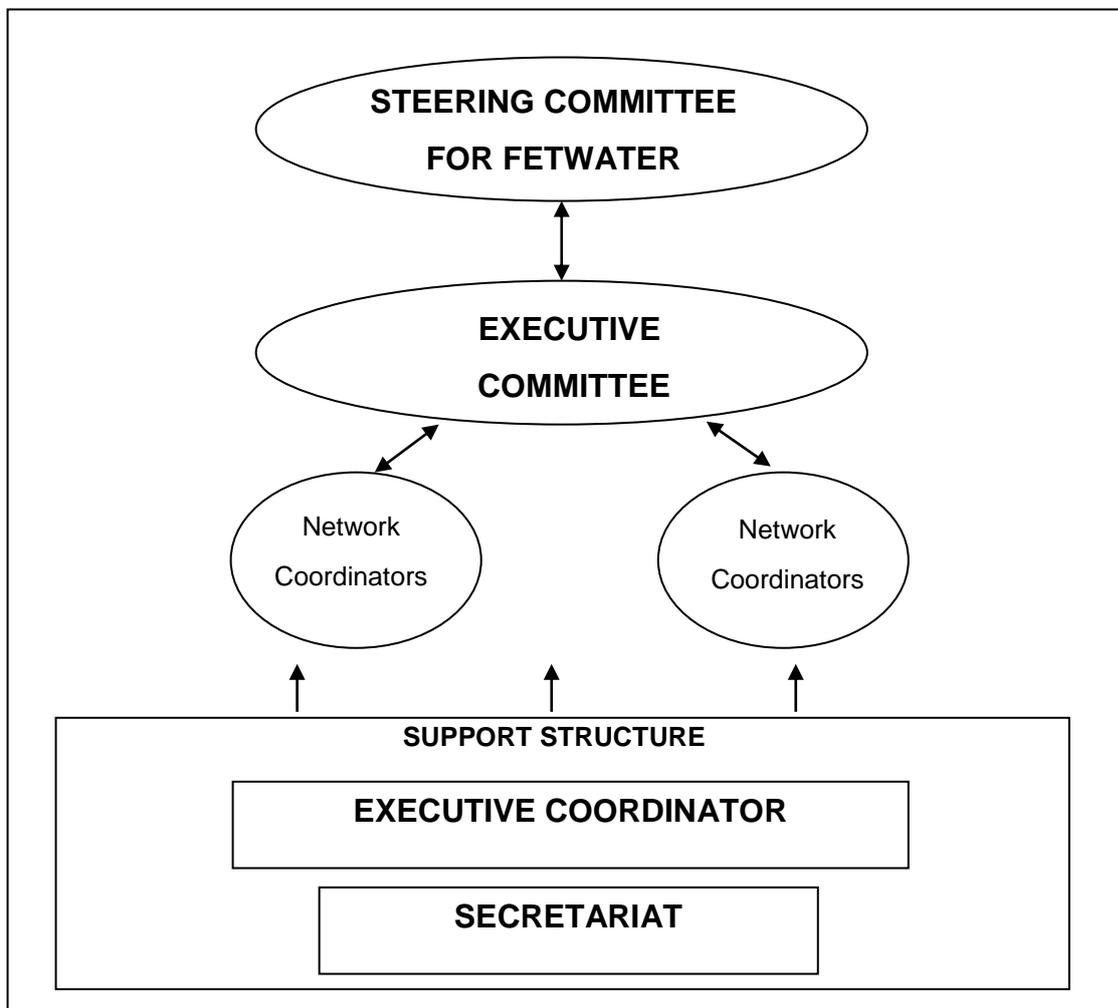

Figure 1.   FETWater steering, management and support structures.

3.1.1   Aims

The aims of the FETWater Steering Committee are to:

- set the direction and long-term vision for FETWater
- serve as a forum where the priorities for training and capacity needs in the water sector could be determined
- decide on programmes in accordance with the priority areas to stimulate the creation of networks
- decide on the provision of financial support to networks.

3.1.2   Objectives

The objectives of the FETWater Steering Committee are to:

- establish internal rules of operation for FETWater
- reviewing its membership and mode of operation from time to time
- reviewing the FETWater work plan to be developed by the Executive Committee
- reviewing and approving a short-term and long-term financial plan to be developed by the Executive Committee
- define priority areas and a timetable for calling for network proposals
- providing guidelines for network proposals
- evaluating and selecting proposals
- making the final decision, based on recommendations by the Executive Committee, on networks to receive seed funding
- appoint an Executive Coordinator for FETWater
- ratify the appointment of network coordinators as recommended by the Executive Committee
- considering and deciding on other recommendations by the FETWater Executive Committee
- assessing interim and final reports by networks
- linking with donor organisations and agencies
- stimulating liaison with southern African countries and other international bodies
- approving interim and annual progress reports to agencies providing financial support
- meeting with the Flemish Government and UNESCO partners on an annual basis to evaluate progress and reviewing the FETWater Programme, and amending it where required.

3.1.3   Membership

The FETWater Steering Committee will consist of a maximum of 15 members, appointed by the Minister of Water Affairs and Forestry. Members will reflect the principles of and objectives that FETWater aims to achieve.

Membership will be drawn from the following sectors, or any other sector to be determined by the Steering Committee from time to time:

- Department of Water Affairs and Forestry
- Water Research Commission
- FETWater Programme funders
- Scientific Councils
- Universities/Technikons
- UNESCO Chairs
- Professional societies

- National government
- Local Government and Water Sector Education and Training Association (LG&WSETA)
- SADC Secretariat: Water Division.

In addition, the chairperson of the FETWater Executive Committee and the FETWater Executive Coordinator will be ex-officio Steering Committee members.

Each member will nominate an alternative member. Appointment of alternates will be based on the same membership requirements as for Steering Committee members. Members and their alternates will be appointed for a period of three years to facilitate continuity.

The Steering Committee will be able to co-opt additional members that may be required with consideration to:

- the need to effect good governance of FETWater
- covering the spectrum of appropriate water-related sectors (rather than organisations per se)
- their expertise and the expertise of their organisations in education, training and capacity building in the water sector
- a representative racial and gender balance
- the need for an ambassador to promote the interests and objectives of FETWater.

The members will be reimbursed for travel expenses but not paid for their professional time.

3.1.4 Nominations for membership

The Department of Water Affairs and Forestry and the Water Research Commission are jointly responsible for drawing up a list of proposed nominations to the Minister of Water Affairs and Forestry for approval and appointment of members. The Minister will base his decision on whether the nominated members and their alternates fulfil the stated requirements of FETWater Steering Committee members and he may add members.

3.1.5 Meetings

The Steering Committee will meet twice a year. At least one of these meetings will be attended by representatives of the Flemish Government and UNESCO to evaluate progress and review the agreed Work Plan.

The Steering Committee will be supported by the FETWater Executive Coordinator. Formal committee procedure will be followed for meetings, with documentation reaching members at least seven working days prior to each meeting, and comprehensive minutes reaching members within three weeks of each meeting.

3.1.6 Chairpersonship

The FETWater Steering Committee will initially be chaired by the Department of Water Affairs and Forestry. The Steering Committee itself will appoint a chair from within its membership.

3.1.7 Accountability and responsibility of members

All members must act in a responsible manner. The fiduciary duty of Steering Committee members would essentially be to represent the interests of FETWater first and foremost. Members are responsible for keeping their alternates informed of proceedings.

3.1.8   Costs

The Department of Water Affairs and Forestry will contribute to the running costs of the Steering Committee and the Executive Committee.

3.2   FETWater Executive Committee

The FETWater Executive Committee is the implementation management body of FETWater. Should the need arise the Executive Committee could from time to time co-opt technical experts to assist in the evaluation of new network proposals to make recommendations to the Steering Committee.

A member of the Executive Committee or a technical expert co-opted on an ad hoc basis cannot be involved in the discussion and evaluation of any network proposal in which he/she may have any interest in or may benefit from.

3.2.1   Objectives

The objectives of the FETWater Executive Committee are to:

- develop a FETWater work plan
- develop short-term and long-term financial plans for approval by the Steering Committee
- develop progress reports to agencies providing financial support
- give effect to decisions of and requests by the Steering Committee
- develop programmes based on the decisions of the Steering Committee and make recommendations in this regard to the Steering Committee
- manage the FETWater Secretariat
- facilitate the creation of networks as well as develop guidelines for network proposals
- review proposals by service providers for networks and make recommendations in this regard to the Steering Committee
- manage the annual call for network proposals and evaluate the network proposals
- based on the evaluations make recommendations to the Steering Committee
- recommend the appointment of Network Coordinators to the Steering Committee
- report twice a year to the Steering Committee on progress
- review of project progress against reports and approve milestone payments.

3.2.2   Membership

The FETWater Executive Committee will consist of five representatives, including the chair, from the Department of Water Affairs and Forestry and the Water Research Commission. Each representative will have a mandated alternate to ensure continuity. The Executive Committee will have the option to co-opt at any given time a person on the Executive Committee, should the need arise.

3.2.3   Chairpersonship

The Chairperson of the Executive Committee will rotate between the Department of Water Affairs and Forestry and the Water Research Commission on an annual basis. The Chairperson of the Executive Committee will attend the meetings of the Steering Committee.

3.2.4   Meetings

The Executive Committee will meet at least four times per year. Two of these meetings will precede the two meetings per year of the Steering Committee in preparation for progress feedback and recommendations to the Steering Committee.

Formal committee procedure will be followed for meetings, with documentation reaching members at least seven working days prior to each meeting, and comprehensive minutes reaching members within three weeks of each meeting.

3.2.5   Costs

The Department of Water Affairs and Forestry will contribute to the running costs of the Executive Committee.

3.3   FETWater Executive Coordinator

The Steering Committee will appoint an Executive Coordinator for FETWater. This will be a full-time task officer. The primary role of the Executive Coordinator is to ensure the smooth and efficient development, implementation and management of the programme.

The duties of the Executive Coordinator include the following:

- facilitate the FETWater Executive Committee and Steering Committee in achieving their objectives
- fulfil the day-to-day management functions of the Programme, supported by a secretariat
- implement decisions of the Executive Committee and Steering Committee
- facilitate and coordinate the network coordinators
- manage the secretariat
- responsible for the financial management of the Programme.

The Executive Coordinator will report to the Executive Committee and Steering Committee and will be responsible to the Steering Committee.

3.4   Network Coordinators

Each network will be coordinated by a Network Coordinator, drawn from one of the members of the Network. The Network Coordinator will be recommended by the Executive Committee and approved by the Steering Committee.

The Network Co-ordinator will be responsible for:

- submission of the network proposal
- the management, co-ordination and monitoring of the network activities
- liasing with the Executive Coordinator
- the co-ordination of network partners
- the assessment of achieved outcomes of the network
- reporting on progress to the Executive Committee
- dissemination of the outcome of the network and best practices in network management
- the financial management of the network funds.

3.5   Network contractors

In the case of financial support, one of the network partners may act as contractor on behalf of the network. The Contractor will be legally responsible for the administration of the financial support (seed money) from FETWater, in accordance with the business plan presented in the network proposal and the terms of the contract.

3.6   Secretariat

The Secretariat will be responsible for support services to the Steering Committee, Executive Committee and

the Executive Coordinator. The Department of Water Affairs and Forestry will make provision for personnel for the Secretariat.

3.7 Summary of FETWater steering and executive structures

Table 1 summarises the FETWater steering and executive structures, their responsibilities and capacity in which they would serve on these structures.

Table 1. FETWater steering and executive structures.

Role	Responsibility	Capacity
Steering Committee	➤ Policy and decision-making body ➤ Set the direction and long-term vision for FETWater ➤ Determine national priorities for FETWater ➤ Make final decisions on financial support of successful network proposals ➤ Consider progress reports from networks ➤ Consider recommendations from the Executive Committee ➤ Meet twice a year ➤ Meet once a year with the Flemish Government and UNESCO partners to evaluate progress and review the agreed Work Plan	One representative of: • DWAF • WRC • FETWater funders • Scientific Councils • Universities • UNESCO Chairs • Professional societies • National government • LG&WSETA • SADC secretariat: Water Division • Chairperson of EC
Executive Committee (EC)	➤ Chairperson will rotate on an annual basis ➤ Responsible to manage implementation of decisions made by the SC ➤ Develop the framework of programmes as decided on by the SC ➤ Responsible to annually call for network proposals ➤ Responsible to review guidelines for network proposals and to make recommendations in this regard to the SC ➤ Responsible to evaluate the network proposals ➤ Make recommendations to the SC on network proposals to be financially supported ➤ Make recommendations in terms of mobility from SA experts to Flanders to the SC ➤ Prepare progress reports (2 per year) to be submitted to UNESCO and Flemish partners ➤ Meet quarterly	Two representatives each from: • DWAF • WRC The fifth member will be the chairperson
Executive Co-ordinator	➤ Act as executive officer and facilitator to the SC, EC and network co-ordinators ➤ Accountable to the SC and EC for implementation of decisions	Employed by DWAF and the WRC
Secretariat	➤ Support and assist the SC, EC, the network co-ordinators, and the Executive Coordinator	Employed by DWAF and the WRC
Network co-ordinators	➤ Responsible for the submission of the network proposal ➤ Responsible for the management, co-ordination and monitoring of the network activities ➤ Responsible for the co-ordination of the network partners ➤ Responsible for the assessment of achieved outcomes; and the verification of reports on activities	A network partner
Contractor	➤ Legally responsible for the administration of the financial support in accordance with the business plan presented in the network proposal.	A network partner

4. PROGRAMMES UNDER FETWATER

FETWater will develop various programmes related to integrated water resource management, over the next few years.

Each programme will have a specific focus and will act as the catalyst for networks under each programme (see Figure 2). Each network will focus on a specific aspect of the priority area served by the programme.

This section describes the aims and objectives of the FETWater Programmes generally, followed by an outline of the Water Environment Management Programme (WEM Programme), the first programme established under FETWater.

4.1 Aims

A FETWater Programme is a vehicle through which users/clients (mainly Department of Water Affairs and Forestry and the Water Research Commission) can access key stakeholders (academics) to help identify education, training and capacity building needs and priorities by making use of networking.

FETWater PROGRAMME

Figure 2. FETWater sets the framework for the establishment of programmes focussing on priority areas requiring education, training and capacity building in the water sector. Each programme could contain a number of networks.

4.2 Objectives

The objectives of FETWater Programmes are:
- To match needs of users with the provision by service providers;
- To transform the water sector to include previously disadvantaged groups and individuals;
- To develop basic skills that will enable professionals to do their work;
- To create synergies to encourage people to work together and share knowledge.

4.3 Priority areas for FETWater programmes

The priority areas will complement other education, training and capacity building activities in South Africa. Only network project proposals complying with relevant priority areas will be considered for support.

The national priority areas will form the basis for effective network co-operation to take place as part of the established FETWater programme.

4.4 Activities

FETWater programmes will support the following types of network activities:
- co-operation networks facilitating the exchange of information and experience and dissemination of lessons learned;
- joint curriculum development in priority areas*;*
- network projects designed to develop innovative initiatives in the identified priority areas of the FETWater programmes;
- accreditation of courses in the priority areas of FETWater programmes;
- capacity building of staff from the national, provincial and local government, parastatals, industries and companies, and non governmental organisations;
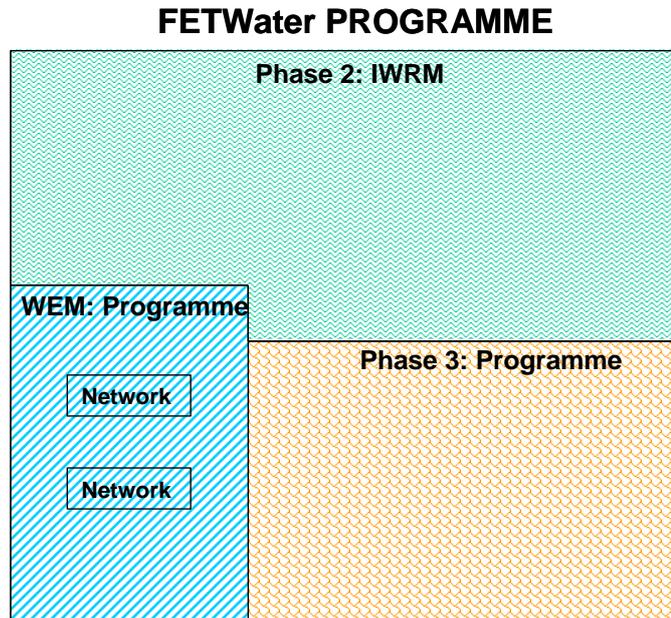- mobility of students and mobility of experts.

5.   THE FIRST PROGRAMME: WATER ENVIRONMENT MANAGEMENT (WEM)

This section outlines the first programme established by FETWater, that of the Water Environment Management Programme, or WEM.

5.1   Priority areas

In line with priority areas to be identified for each FETWater programme, priority areas have been determined for the WEM Programme. This was done in accordance with the aims of the National Water Act to ensure that the first programme of FETWater reflects the specific education, capacity building and training needs related to water environment management. The priority areas of the WEM Programme and the level at which the education, training and capacity building will be targeted was a decision of the FETWater Interim Executive Committee after consultation with various stakeholders.

The identified priority areas are:

- Resource directed measures, including quality, quantity, the Reserve and classification, and
- Aquatic system health, including rivers, wetlands, estuaries and groundwater.

5.2   Aim

The aim of the WEM Programme is to act as a vehicle through which users/clients can access key stakeholders (academics) to help identify education, training and capacity building needs and priorities by making use of networks.

The WEM Programme will manage the transfer of knowledge related to the environmental component of the water resource. This programme will thus be specifically focussed on environmental components, and will not cover all aspects of integrated water resources management.

The WEM Programme will stimulate the establishment of networks that can give effect to education, training and capacity building in the environmental component of integrated water resource management. The WEM Programme may contribute seed funding where necessary

5.3   Objectives

The objectives of the Water Environment Management Programme (WEM Programme) are:

- To match needs of users tasked with the environmental management of the water resources with the provision by service providers;
- To transform the water sector to include previously disadvantaged groups and individuals;
- To develop skills that will enable professionals to do their work;
- To create synergies to encourage people to work together and share knowledge.

# 6.	NETWORKS

Networks are formed within identified programmes of FETWater. Networks are the backbone for all other activities within FETWater. The other activities will not be eligible for co-funding if they are not proposed by a recognised network.

## 6.1	Philosophy

The philosophy behind networking is:

- the sharing of resources, both human and financial;
- improving the level of common knowledge and skills;
- contributing to professional consensus; and
- sharing experiences.

Co-operation through networking is a tool to bring people with a common purpose together. Members of the network should add value to the network. Partners also need to know that their contributions will be visible and will be disseminated and/or rewarded. Incentives are an important factor.

## 6.2	Aim of networks

The aim of networking is to create a framework for partnerships and to promote effective long-term co-operation between the partners in the network. Co-operation within a network should lead to outcomes with a lasting impact on integrated water resource management. Networks should contribute to the promotion of integrated approaches.

## 6.3	Objectives

The objectives of networks are the exchange of ideas, the transfer of knowledge, skills and the improvement of competencies through different methods. It is about pooling of expertise and the transfer of technology. Networks disseminate information in different ways, exploit methods, techniques, research results and best practices. Networks are important tools for effective co-operation. The objectives of a network should also be broad enough to be beyond the scope of any one group, and can only be addressed by pooling the expertise of several disciplines.

The basic approach is the effective co-operation of people with the same long-term vision, who work together to plan, design, implement, deliver, evaluate and assess network-based activities. It is also essential to establish useful information that network members can access. Information sharing platforms will be a key element.

## 6.4	Partners

A good relationship with possible partners is an important building block. The success of networks depends most of the time on personalities. Personal contact is a pre-condition for the success of networks. Networks are built on relationships and trust between people. Personal contacts and personal involvement in project implementation of network partners are the most important aspects of co-operation and networking. Networks start on a one-on-one basis, and are based on mutual trust.

Networks should be national networks that include universities, companies and industries, business organisations and professional associations, partners. A network could involve the following additional partners:

- Experts: Each network should identify appropriate experts from different fields of expertise in the specific priority area.
- Non-academic institutions: Networks should consider including relevant organisations other than academic institutions such as national, provincial and local government, parastalals and private organisations as partners of their network.
- Individuals: Individuals can take part in network activities.

A network will comprise of approximately 6 to 8 partners. Each network partner is expected to play an active role in the network. Partners also need to know that their contributions will be visible and will be disseminated and/or rewarded. Incentives are an important factor.

6.5   Network activities

Network activities will include:

- Identification of needs;
- Determining long and short term goals;
- Identification of target groups;
- Selection of best outputs;
- Adaptation to needs of the identified target group;
- Creating suitable and affordable access of the information for the target group;
- Training courses for selected target groups;
- Curriculum development in priority areas*;*
- Identified trainers to be trained;
- Accreditation of training courses and trainers by national authorities;
- Evaluation of network outcomes;
- Dissemination of network outcomes and best practice in network management.

The funding of these activities is on a shared-cost basis where the network partners and donor agencies play a major role.

6.6   Characteristics of networks

International experience shows that successful networks have the following characteristics:

- Long-term objectives clearly defined by the network
- Bottom-up approach
- Voluntary partnership and shared responsibility of each partner
- Non-hierarchical
- Mutual trust
- Not project-limited
- Clear offerings
- Strategic planning

Existing initiatives should not be duplicated, but rather be strengthened.

6.7 Pitfalls of networks

A number of pitfalls of networks have been identified, again through lessons learned internationally:

- Lack of funding is the greatest threat.
- Short-term interests of partners should make way for a long-term goal, to overcome short-term related conflict.
- Lack of transparency.
- Complicated operational rules (bureaucracy).
- Duplication of activities with other organisations, competition.
- Lack of motivation from members. The network is only a portion of their time, they will not treat the network as their first priority.
- Lack of professionalism in operation and quality assurance.
- Obstacles due to diversity.
- Failing to bring together the right people.

6.8 Funding for networks

Network management costs money. Networks cannot work without the necessary funding and success depends on serious financial commitment. Financial resources for networks are as follows:

- Operational structure and management (co-ordinator)
- Funding by participants
- Funding by sponsors
- Funding by selling expertise, services, products
- Funding by members.

The funding of the network activities is on a shared-cost basis where the network partners clearly indicate their contributions. FETWater will contribute seed funding based on the evaluation and approval of network proposals and where funding is not available from other sources.

6.9 Selection criteria

- The potential of the network activity to contribute to enhancing **quality** and promoting **innovation** in the field concerned; **relevance** of the themes and activities chosen in the light of demonstrated needs.

- The potential of the network activity in terms of its short, medium, and long term **impact**, its capacity to **combine expertise** from different fields of expertise (pooling of expertise), and its general **added value** in terms of integrated water resource management.

- Balanced **representation** in terms of types of institutions, provinces covered within the network activity.

- Emphasis placed by the network proposal on the promotion of **equal opportunities**.

- Clarity of **objectives** and **target groups**.

- Clarity and consistency of the **general design** of the network proposal and likelihood of attaining the desired goals within a reasonable period.

- Quality of the **management arrangements**, commitment and balanced involvement of the partners, precise work plans and budgets, clarity of co-ordination, etc.

- Quality of the proposals in terms of **monitoring and evaluation**.

- Quality of the arrangements for **disseminating good quality results** (multiplier effect).

- **Experience** of the participating organisations and quality of their human and technological resources, capacity of the partnership to fulfil the objectives of the network proposal.

6.10   Process after the network proposal selection

Once a network proposal has been evaluated and decided upon by the Steering Committee, the following process will be followed:

- All the network proposal proponents will be informed of the Steering Committee's decisions.
- A contract with the network coordinator will be signed.
- Payments to the successful proposals will be made after submission of regular progress reports.
- Implementation of the proposal will be the responsibility of the network coordinator.
- Dissemination of the results of the implementation of the network and lessons learned is compulsory.

7.   WHAT IS EXPECTED FROM NETWORK PROPOSALS?

Preparing and managing a network means conceiving and reaching one main goal with pre-defined objectives, timetables, methods and a strategy. The following paragraphs are intended to provide an overview of what is expected from networks.

- Networks need to have a clearly defined long-term goal within the framework of the Programme. Both the management structure and the activities should be organised so as to achieve the planned end result (long-term goal) in the most efficient way. Exploiting the strengths of each consortium member and monitoring the quality and direction of the outcomes is essential.

- Each partner is expected to play an active role in the network. It is important that each network partner's contribution to the network is clearly indicated in the network proposal.

- An endorsement letter from each of the network partners, signed by the person who is legally authorised to represent the respective organisation (e.g. rector, vice-chancellor, director, president), which confirms the support of the consortium member for the network is an obligation.

- When preparing a network proposal, it is important to clearly outline the logic of the proposal.

7.1   Guidelines for designing a network proposal

- **Needs Analysis**

When submitting a proposal for a network, a need analysis has to be carried out and should be included in the network proposal. This analysis will provide a better understanding of the main strengths, weaknesses, opportunities and constraints faced by the network partners, and should provide a clear indication of the need to develop a particular network. The analysis should explain clearly why this need has arisen and how the network partners aim to tackle this need.

- **Network objective**

The overall long-term goal should be to support an integrated water resource management approach in the implementation of the National Water Act, 1998.

Bearing in mind the long-term goal, the consortia will define the network specific objectives. The specific objectives should describe the improved situation, which is expected as main outcomes of the network proposal. For these reasons the objectives proposed should be **SMART**:

- **S**pecific
- **M**easurable
- **A**ccurate
- **R**ealistic
- **T**ime-bound (i.e. has a defined deadline).

- **Outcomes**

The network will also have to identify the specific outcomes that will be generated and that will lead to the achievement of the network objectives. The outcomes to be produced during the implementation should be described in concrete terms.

- **Activities**

A series of concrete activities should be planned in order to produce the expected outcomes. Each activity will use the resources available to contribute towards the planned outcome. Each outcome will have at least one activity linked to it.

- **Inputs**

The network proposal should give details of the resources needed for the activities to take place. These resources can be in terms of human resources, equipment, material, accommodation and travel costs.

- **External Factors and Risks**

The achievement of outcomes should not be beyond the control of the network partners. However, network partners should also be aware of any external situation, which might affect the success of the network activities. Having identified the external factors, which could affect the network goal, a strategy should be defined to address these issues.

7.2 Transfer of Network Outputs

Dissemination can be defined as the transfer of network outputs (products as well as processes) to persons and organisations that are not directly involved in a network. Dissemination is of utmost importance as it maximises the impact of the network and increases the return on the investments made. Each network is expected to contribute to this effort. Networks should address the aspect of transfer of network outputs right from the start.

It is important to have lasting benefits of network outcomes so as to ensure sustainability beyond the period of funding. A high visibility of outputs, networking activities, feedback from end-users and official recognition, will contribute to increased sustainability.

Dissemination can involve the tangible and the intangible outputs of the network. Tangible outputs are physical products of network activities, such as manuals, course curricula, teaching software, books, etc. Intangible outputs can cover all the experience gained in the network such as skills of management of partnerships, methods by which the final products were developed or methodologies used, etc.

Needs have to be analysed prior to dissemination. It is therefore important to evaluate the demand for the product. The target audience for disseminating each of the outputs should be carefully identified. It is also important to identify the most suitable dissemination vehicle for a given output and for the target group identified. The following are examples of the most common dissemination tools:

- **The press** can be a very useful medium for informing a wide audience about the process or "intangible" results of a project.

- **Newsletters** can be a simple but effective tool for spreading the results or the programme in general. A mailing list can be set up using contacts from all the partners.

- **The possibilities of Internet** are vast. If a web site is created for the network, effective links to other relevant sites have to be created. E-mail can be used as a networking device to disseminate results beyond the partner-network.

- **Conferences, seminars and other such events** are a good opportunity to inform other interested parties about the results of the network activities. These may be very effective for presenting certain kinds of tangible outputs and for establishing personal contacts.

- **Training seminars** can be very appropriate when the output is "intangible", e.g. for the dissemination of network management skills.

In addition to the above-mentioned individual project approach, a more comprehensive approach towards dissemination is:

- **Linking the dissemination actors:** Dissemination should link the specific competencies of a broader network of actors into a comprehensive framework. Strengthen the role of the national authorities, in output dissemination.

- **Transfer of know-how:** The networks should benefit from the wealth of existing know-how. New ways should be explored in order to secure the transfer of know-how.

- **Dissemination of existing best outputs:** The networks should as far as possible lead to the dissemination of existing best outputs. Network activities in the areas of curriculum development and institution building should carefully examine the possibility of adapting existing best outputs rather than developing completely new ones.

- **New network activities should become an important tool for dissemination activities:** Networks are expected to contribute to the design and implementation of a coherent dissemination strategy. They should in particular make provision for evaluation prior to dissemination as well as to the analysis of needs in particular areas.

7.3   Network funding

- **Grant amount**

Successful network proposals will be awarded one contract for the duration of the network activity. The grant is intended to be seed money to start up the implementation of the network's proposed activities. The total grant will be split into annual amounts, which will be paid to the network subject to the submission of reports indicating progress made towards the approved network goal. The precise financial rules will be specified in the contract.

- **Contractual period**

The grand/ seed money must be spent within the contractual period.

- **Eligible expenditure**

The grant/ seed money awarded may be used to cover the following expenses: staff costs, costs for printing and publishing, overheads, travel and accommodation costs.

- **Administrative tasks**

The grant/ seed money may be used to cover the costs for staff who perform administrative tasks which are required for the achievement of the network goal (e.g. the administration and co-ordination of project activities and planning of meetings.), on condition that salaries for these tasks are not covered from any other source. The partners involved in the networks are expected to invest part of their own staff resources in carrying out tasks. A detailed explanation of the number of people employed and paid by the WEM Programme grant, as well as the time spent working for the project, (expressed as a percentage of full-time employment) should be included in the network proposal.

- **Academic tasks**

The grant/ seed money may be used to cover the costs of staff who perform academic tasks which are directly related to the achievement of the network goal and on condition that the salary for these tasks is not covered from any other source. Fees may be paid to academic staff to cover exceptional, limited and strictly justifiable academic tasks not performed as part of regular duties. These tasks include course development, the development and adaptation of teaching materials, and the preparation and teaching of courses especially developed for the network activities.

- **Printing and publishing**

All costs related to printing, photocopying and (electronic) publishing of teaching material and any other documentation necessary to reach the objective of the network should be recorded under this heading.

- **Overheads**

Overheads include stationary, photocopying, office supplies, postage and telecommunication costs directly related to the network activity, but exclude staff costs and equipment. The maximum amount for overheads is 5% (actual costs) of the total annual grant.

- **Travel and accommodation costs**

Grants for staff travel are intended to cover travel and accommodation costs.

- **Eligible Activities**

Activities should form a coherent whole that will generate the network outcomes. The consortium members should choose relevant activities in line with the following list.

- train the trainers;
- re-training of professionals in the water sector;
- curriculum development activities and/or visits for conferences, co-ordination, planning and quality control activities;
- intensive courses, short and strictly targeted (re)training in a specific subject area;
- visits for dissemination purposes to educational institutions, the business community, institutions etc.;
- participation in international conferences, symposia, seminars, etc., and events which directly contribute to achieve the network goal;
- expert advice.

All networks should aim to achieve integrated approaches and sustainable outcomes.