



Building Capacity for Water Resources Management in Southern Africa

2nd Progress Report Phase II: 2005-2009

January 2006 – 30 June 2006



A strategic programme of the
SADC Water Sector

December 2006



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Highlights

WaterNet Phase II Project Launched

WaterNet Phase II Programme (2005-2009) was officially launched on the 17th February 2006 at the University of Zimbabwe. The Minister of State for Water Resources and Infrastructural Development in Zimbabwe, Honorable Engineer Munacho Mutezo, was the guest of honour. At the launch, the Swedish Ambassador to Zimbabwe His Excellency Mr Sten Rylander and the Netherlands Deputy Ambassador to Zimbabwe Her Excellency Mrs Leonie Cuelenaere affirmed joint funding for the regional network and support for IWRM in the region.

The hosting agreement for the WaterNet Secretariat was renewed at the event and signed by UNESCO-IHE Institute of Water Education, Delft, representative Prof. Pieter van der Zaag and the University of Zimbabwe, represented by the Vice Chancellor Prof. Levi Nyagura.

The launch was attended by more than 100 participants from WaterNet members, embassy representatives of SADC member states, representatives of WaterNet member institutions, WaterNet IWRM Master students, various organisations and academics in the water sector in Zimbabwe and the region.

Establishing the Network

The process of rooting WaterNet legal and financial systems in Botswana began.

WaterNet 14th Steering Committee Meeting

The 14th WaterNet Steering Committee meeting was held on 1-2 June 2006 at the University of Western Cape, Cape Town, South Africa.

Impact Assessment of the WaterNet Programme

The Impact assessment of the WaterNet Programme draft report for discussion was completed in February 2006 and submitted to the supporting partners. The report raised many interesting issues which would normally be overlooked in capacity building programmes like WaterNet. The report recommends certain actions to be undertaken by WaterNet and presents reporting requirements for monitoring and evaluation of progress. The report was considered at the 14th Water Steering Committee Meeting and would be tabled at the 7th WaterNet AGM in Lilongwe, Malawi for further discussion and adoption.

ACP-EU Water Facility Funding

WaterNet in partnership with Cap-Net, West Africa Network (WA-Net), Nile Basin Capacity Building Network for IWRM and Central America and the Caribbean network (REDICA), were successful in a proposal entitled "Capacity building for integrated water management in Africa and the Caribbean" submitted to the European Commission through United Nations Development Programme (UNDP) in partnership with Global Water Partnership (GWP).

The news of the Grant offer totalling Euro 2.49 Million was announced in late January 2006. The project was among 97 successful ones in the first round of projects funded by this Facility. The multinational and multiple partner project is funded through the EU-ACP Water Facility with a contribution from GWP (Euro 0.35 Million) and UNDP (0.49 Million) bringing the total eligible cost of action to about Euro 3.3 Million over a three year period. It is expected that WaterNet would be able to access up to Euro 0.3 Million under this arrangement.

Members

At its 14th Meeting the WaterNet Steering Committee debated on the draft rules or guiding principles for admittance of Corporate institutions within the WaterNet. At the same meeting after reconsideration the Steering Committee recommended that the Faculty of Humanities, Africa University be the 49th WaterNet member institution subject to approval at the 7th AGM.

Integrating Gender and HIV/AIDS

The two strategies have been under development since the beginning of the year. The final draft reports were submitted for review. The process of clearly mainstreaming Gender and HIV/AIDS within WaterNet activities has been a bit problematic due to lack of understanding and conceptualisation on how the two can be integrated within IWRM.

Meeting of Masters Programme Coordinators

The first ever meeting of the Coordinators of the Master Degree Programme in IWRM was conducted in Cape Town on 30-31 May 2006. The agenda of the meeting included the following:

Improving communication channels, quality assurance procedures, implementation of the IWRM Master Programme, recruitment of Professorial Chairs, progress reporting, Fellowship and MSc Dissertation Funds, student welfare and WaterNet fellowship contract for students.

Masters Programme 2006 Intake

The programme for the 2006 intake started on 13 February 2006 at the University of Zimbabwe with 15 WaterNet funded students (6 female and 9 male) and at the University of Dar es Salaam with 15 WaterNet sponsored (3 female and 12 male), and nine sponsored by Applied Training Project (ATP) under the Nile Basin Initiative (NBI) programme (all male) and one male by World Meteorological Organisation (WMO).

Masters Programme 2007 Intake

WaterNet advertised for the 2007-2008 intake for the Masters degree programme in Integrated Water Resources Management. The major highlight was the introduction of the 6th specialisation on Water and Land. The deadline for receipt of applications was set for 15 September 2006 with the programme scheduled to start on 12 February 2007.

Tracer Survey

WaterNet initiated a tracer survey targeted at the more than 80 graduates enrolled since 2002 from Master Degree programme in IWRM. The tracer survey seeks the opinion of the graduates about the value of the programme in light of their professional career and work experience. It also intends to form the basis of setting up an alumni programme.

WaterNet Challenge Program on Water and Food

Eleven Masters students completed their dissertation write-up and 15 are currently doing their fieldwork. This includes students from eight different countries, working in four of the riparian countries of the Limpopo River Basin and registered with nine different universities. All five PhD candidates are now registered and have started their fieldwork.

WaterNet-GWP-SA enter into a Memorandum of Agreement

WaterNet and Global Water Partnership Southern Africa (GWP-SA) entered into a Memorandum of Agreement to ensure closer cooperation and as a means of a formal commitment from both organisations in the planning and implementation of short courses identified and prioritised in the regional GWP-SA capacity building plan.

Sida Confirms Funding for the Zambezi Basin IWRM International Training Programme

Sida confirmed funding in May for the International Training Programme on Integrated Water Resources Management for the Zambezi Riparian Countries (2006-7). The consortium of Ramboll Natura and Stockholm International Water Institute (SIWI) will jointly with WaterNet deliver a programme to build capacity for supporting and consolidating the development process of IWRM in the riparian countries of the Zambezi River Basin. WaterNet was identified as a regional partner because of its expertise in delivering IWRM training, its regional coverage and ability to promote ongoing dialogue and regional and international networking.

BGR, Cap-Net, WaterNet and WA-Net Groundwater Capacity Building Needs Assessment

WaterNet in collaboration with Cap-Net and WA-Net concluded negotiations with the German Federal Institute for Geo-sciences and Natural Resources (BGR, Bundesanstalt für Geowissenschaften und Rohstoffe) for consultancies related to “Capacity building needs assessment for groundwater within IWRM”. For WaterNet the consultancy is primarily meant to clearly identify the capacity building needs required in groundwater within the SADC countries and hence as input in the WaterNet Strategy.

Symposium 2006

The 7th WaterNet/WARFSA/GWP-SA Symposium is scheduled to take place at Capitol Hotel, Lilongwe, Malawi, 1-3 November 2006. The first announcement and call for abstracts was made during the reporting period.

WaterNet Website Upgraded

Upgrading the WaterNet website began with designing the graphics and content management system. The final product will include the following features and benefits: effective navigation; news manager, which allows for instant updates of recent news items and automatic archiving of older news items; statistics monitoring, an online forum and registration with popular internet search engines.

WaterNet Secretariat

Mr Nicholas (Nick) Tandi joined the Secretariat as a Programme Officer from 1 February 2006 on a one year contract. Mr Tandi's appointment will foster effective communication within and outside the network. Ms Martha Hondo was appointed as a substantive Administrator as from 1 May 2006.

1 INTRODUCTION

1.1 BASIC DATA

Country:	Southern Africa Development Community (SADC)
Project name:	WaterNet Strategy Phase II, 2005-2009: Building Capacity for Water Resources Management in Southern Africa
Sida contribution number	73000564
DGIS activity number:	11763/DMW0051164
Executing organisations	
Coordinating Institute:	UNESCO-IHE Institute for Water Education, Delft, The Netherlands
Host Institute:	University of Zimbabwe, Harare, Zimbabwe
Project period:	1 April 2005 - 31 March 2010
Progress Report No.:	2
Reporting period:	1 January 2006 – 30 June 2006

1.2 CONTEXT

This document is the second progress report of WaterNet Phase II (2005-2009) covering the period 1 January 2006 - 30 June 2006. The first report covered the period 1 April 2005 - 31 December 2005 and was submitted in March 2006.

WaterNet, a network of tertiary education and research institutions in Southern Africa, was established in year 2000. By the end of June 2006 WaterNet membership consisted of 48 institutions and five supporting members.

1.3 PROGRAMME OBJECTIVES

The vision of WaterNet is a future in which the SADC region has the institutional and human capacity to educate its own water managers, capable to contribute to the equitable sharing and sustainable utilisation of water resources for poverty alleviation, economic development (livelihood security) and environmental security.

The mission of WaterNet (long-term development objective) is to enhance institutional and human capacity in Southern Africa in the field of Integrated Water Resources Management (IWRM) through training, education, and research by harnessing the complementary strengths of institutions in the region. The enhanced capacity should enable the peoples of Southern Africa to manage their water resources in a more efficient, equitable and sustainable manner.

The immediate objectives of WaterNet are fivefold:

1. To forge a strong, demand driven and sustainable network of universities and research institutions in Southern Africa in the field of IWRM.
2. To deliver and strengthen the jointly owned regional Master degree programme in IWRM
3. To develop and deliver demand-driven training and education for practicing water sector professionals in Southern Africa.
4. To stimulate, regionalise and strengthen the research in the field of IWRM in Southern Africa.
5. To raise awareness and understanding of IWRM and its implementation at local, national and trans-boundary scale.

The immediate objectives are interlinked as they depend on each other and also benefit each other.

2 PROGRAMME TARGETS

2.1 PLANNED ACTIVITIES JANUARY TO DECEMBER 2006

The following activities were planned to be addressed during the reporting period (as amended and approved at the 6th WaterNet Annual General Meeting, in Swaziland on 3 November 2005).

Work Plan January to December 2006

OUTPUT 1 To forge a strong, demand driven and sustainable network

- Activity 1.1 Establish WaterNet PCN 23: WaterNet to become the implementing agent for SADC's human capacity building priorities in IWRM
- Activity 1.2 Promote member ownership of Network: WaterNet will put a particular emphasis to invite members from Angola. Revise criteria and advertise for the Nodal Strengthening Fund (NDF), Staff Development Fund (SDF) and Staff Exchange Fund (SEF). Award at least 5 NDF, 3 SDF, and 28 SEF
- Activity 1.3 Fully staffed WaterNet Secretariat: The secretariat is expanded with a Programme Officer and Professional Training Officer in 2006
- Activity 1.4 Professional financial management achieved: Manage the WaterNet Funds in a professional and transparent manner. Establish an effective financial administration by mid 2006, able to receive and disburse external funds according to international auditing requirements
- Activity 1.5 WaterNet Legal Status established: Operationalise the WaterNet Trust. Ensure that the WaterNet Trust is registered in Botswana
- Activity 1.6 Financial sustainability through income generation and contributed funds: The aim is to generate contributed project funding and external income of up to at least 25 % of the overall WaterNet budget
- Activity 1.7 Monitoring, evaluation and reporting procedures in place: Ensure that the necessary review/updating of the IWRM capacity building agendas (awareness, education, training and research). Develop and implement WaterNet gender and HIV/AIDS strategies

OUTPUT 2 To deliver and strengthen the jointly owned regional master degree programme in IWRM

- Activity 2.1 Deliver the masters programme at two core host institutions
- Activity 2.2 Offer 5 Specialisations in Water Resources Management, Water and Environment, Water for People, Hydrology and Water and Society
- Activity 2.3 Fellowship Fund established: The WaterNet Fellowship Fund to offer 30 fellowships for the Master programme for 2006
- Activity 2.4 Establish Review procedure and quality control system for WaterNet Masters programme: Comprehensive review of the curriculum of the Master Degree Programme, including a proposal for general Regulations
- Activity 2.5 Establish with WARFSA the WaterNet MSc Dissertation Fund: Operationalise with WARFSA the WaterNet MSc Dissertation Fund

OUTPUT 3 To develop and deliver demand driven training and education for practicing water sector professionals from the Southern African region.

- Activity 3.1 Launch the WaterNet Professional Training programme: Together with SADC Directorate for Infrastructure and Services initiate the WaterNet professional and short courses training programme in IWRM
- Activity 3.2 Appoint the WaterNet Professional Training Officer to coordinate the WaterNet professional training programme
- Activity 3.3 Establish catchment partnership jointly with Global Water Partnership Southern Africa Network (GWP-SA) for demonstration and learning on translating IWRM principles to management
- Activity 3.4 Offer the English for Water Managers Course targeting professionals from Democratic Republic of Congo, Madagascar, Mozambique, and Angola

OUTPUT 4 To stimulate, regionalise and strengthen research in the field of IWRM in the Southern Africa Region

- Activity 4.1 Research capacity building (training and mentoring) together with WARFSA
- Activity 4.2 WaterNet a partner in integrated IWRM research: The WaterNet Secretariat will function as a hub in the region in developing and implementing integrated research initiatives, and to support and facilitate multi-disciplinary research initiatives among WaterNet member institutions (Challenge Program on Water and Food in the Limpopo Basin (PN 17), Smallholder Systems Innovation Research Project, Sustainable Sanitation Solutions for Africa)
- Activity 4.3 Seek funding for new research activities, WaterNet facilitating role
- Activity 4.4 Appoint the two WaterNet- SADC Professorial Chairs in IWRM

OUTPUT 5 To raise awareness and understanding of IWRM and its implementation at catchments and transboundary scale

- Activity 5.1 Develop and implement WaterNet Outreach activities: Develop and implement WaterNet communication strategy. WaterNet to consolidate the knowledge base from its post-graduate education programmes, its involvement in research advancement and the strengths of its members on IWRM
 - Activity 5.2 Hold the 7th WaterNet/WARFSA/GWP-SA Symposium in Malawi
-

3 ACHIEVEMENTS

WaterNet is at a crucial phase of development. The network which has been governed by its constitution is geared to be a fully fledged institution. WaterNet is set to become a regional independent and legal entity with in-house financial management systems and with a capacity to negotiate directly with funding agencies by mid 2007.

The following of the planned activities were undertaken during the reporting period.

3.1 FORGING A STRONG, DEMAND DRIVEN AND SUSTAINABLE NETWORK

3.1.1 Establishing WaterNet PCN 23

The WaterNet Strategy Phase II: 2005-2009 was endorsed by the SADC Secretariat in 2005. The WaterNet programme has been included in the Regional Strategic Action Plan (RSAP II) on Integrated Water Resources Development and Management 2005-2010 as one of the key programmes within the capacity building cluster.

WaterNet Phase II Programme (2005-2009) was officially launched on 17 February 2006 at the University of Zimbabwe. The Minister of State for Water Resources and Infrastructural Development in Zimbabwe, Honorable Engineer Munacho Mutezo, was the guest of honour. At the launch, the Swedish Ambassador to Zimbabwe His Excellency Mr Sten Rylander and the Netherlands Deputy Ambassador to Zimbabwe Her Excellency Mrs Leonie Cuelenaere affirmed joint funding for the regional network and support for IWRM in the region.

The launch was attended by more than 100 participants from WaterNet members, embassy representatives of SADC member states, representatives of WaterNet member institutions, WaterNet IWRM Master students, various organisations and academics in the water sector in Zimbabwe and the region.

During the reporting period WaterNet Secretariat explored ways of collaboration through meetings with other regional capacity building initiatives namely, InWent, Capacity Building International, Germany, and the Danish International Development Agency (Danida). InWent intends to focus on the strengthening of river basin organisations mainly in the Orange and Limpopo river basins, whilst the Danida Regional Programme Support for Environmental Assistance to the Southern Africa Region on Integrated Water Resources Management (which commenced in February 2005) has indicated the Limpopo, Maputo and Kafue basins as geographical areas to be targeted.

WaterNet in collaboration with Cap-Net and WA-Net have concluded negotiations with the German Federal Institute for Geo-sciences and Natural Resources (BGR, Bundesanstalt für Geowissenschaften und Rohstoffe) for consultancies related to “Training needs assessment for groundwater within IWRM”.

Considering the importance of groundwater and recognising its role for the well being of millions of people in Africa, BGR is supporting the promotion of integrated and sustainable management of groundwater through the sector project “Policy Advice Groundwater – Resources and Management”. At present there are several problems dominating groundwater management like lack of knowledge and information on groundwater resources in general,

lack of “methodology” of how to survey groundwater resources, lack of groundwater management plans. These problems require putting into operation corrective mechanisms.

Capacity development will be necessarily an integral component of such mechanisms. It will help to promote and adopt sustainable groundwater management practices among water professionals as part of an integrated approach to water resources management.

For WaterNet the consultancy is primarily meant to clearly identify the training needs required in groundwater within the SADC countries and hence as input to the WaterNet Strategy. WaterNet as one of the regional networks called for interested parties/individuals within its membership to submit expressions of interest to conduct this assessment on the basis of two key components:

1. Analysis of all aspects for the use and protection of the groundwater resources, including the information base, institutional aspects, legal framework, economic aspects, technological infrastructure, and decision making processes in the water sector. Particular attention being paid to identifying IWRM linkages and possibilities within the study framework.
2. Proposing a relevant set of capacity development actions to address the issues identified by the analysis and identifying existing institutions within the region that may be partners in the proposed capacity development either in terms of providing relevant training courses or in terms of staff development for such institutions.

This study, designed principally as a desk study, will focus on the groundwater sector in the countries of the SADC region, particularly those countries that are member countries of WaterNet.

The consultancy fees will be paid by German Federal Ministry for Economic Cooperation and Development (BMZ) and the regional networks will meet some travel and subsistence costs. The assessment will be predominantly a desk study and the findings will be presented either by circulation or at the 16th Steering Committee meeting in 2007.

3.1.2 Promote member ownership of the network

WaterNet membership has grown since being established in Victoria Falls, Zimbabwe in March 2000 by 18 institutions from 9 countries in Southern and Eastern Africa to a broad network with 48 members in 14 countries in June 2006 (see **Annex 1**).

No applications were received during the reporting period, but membership application forms were requested by:

- Department of Geology, School of Mines, University of Zambia;
- Department of Water Affairs and Forestry, South Africa;
- African Centre for Water Research, South Africa;
- Faculty of Engineering, Catholic University of Angola;
- Centre for Applied Research, Botswana

Efforts are still being made to entice WaterNet membership from Angola and Madagascar.

The Steering Committee at its 14th meeting re-considered the Faculty of Humanities and Social Sciences, Africa University, Zimbabwe application for membership and the following was noted:

- The Faculty of Humanities and Social Sciences to developed the *English for Water Managers* module and have been the host institution for the module
- The *English for Water Managers* course was an important course and was useful for water managers from non-English speaking countries

The meeting resolved that the Faculty of Humanities and Social Sciences should be recommended as a WaterNet member at the 7th Annual General Meeting.

The Secretariat proposed at the 14th Steering Committee meeting that WaterNet members should confirm their membership by signing a document similar to the founding charter. This was necessary in view of the pending institutionalisation of WaterNet referred to later on this report. The Steering Committee members resolved that WaterNet members should also be requested to submit annual reports. The Secretariat was tasked to come up with a reporting pro-forma to be presented at 7th Annual General Meeting for approval and adoption.

At the 13th Steering Committee meeting and 6th Annual General Meeting the question of admitting Corporate Members in WaterNet was debated and the Secretariat was asked to come up with guiding rules or guiding principles for their admittance. This necessitated clear definitions of the following categories of membership:

- Members (as defined in the constitution)
- Supporting Members (as defined in the constitution)
- Corporate Members (as defined in the Rules Guiding Corporate Membership of WaterNet)

The draft Rules (**see Annex 2**) were to be presented at the 7th Annual General Meeting for consideration and approval.

The Steering Committee as of June 2006 comprised of the following persons:

- 6 elected members
- 3 *ex officio* members
- 3 supporting members

At the 14th Steering Committee meeting the members where informed that Mr Kenneth Msibi the SADC Water Division representative had since left the SADC Secretariat. Mr Phera Ramoeli the Senior Programme Manager replaced Mr Msibi in the Steering Committee.

The Steering Committee as of June 2006 thus had a total of 12 members, as follows:

- 6 elected members
 - Ms Lucia Kafidi
 - Dr Dominic Mazvimavi
 - Prof Wapumuluka Mulwafu
 - Dr Doug Merrey
 - Dr Graciana Peter
 - Dr Frank Kansiime
- 3 *ex officio* members

- Ms Ruth Beukman (GWP-SA)
- Eng Wilson Nyemba (Host institution and Chairperson)
- Mr Phera Ramoeli (SADC Water Division)
- 3 supporting members
 - Mr Kees Konstapel (Dutch government)
 - Ms Gunilla Wingqvist or alternatively Mr Kumbulani Murenga (Swedish government)
 - Prof Pieter van der Zaag (UNESCO-IHE)

During the reporting period seven applications for support from WaterNet dedicated Funds were received and approved for the following members and purpose:

- Nodal Strengthening Fund (NSF), University of Zimbabwe, Department of Civil Engineering for the purpose of acquiring computers and accessories (Requested US\$ 15 000.00; Granted US\$ 15 000.00)
- NSF, University of Dar es Salaam, Department of Water Resources Engineering for the purpose of acquiring computers and accessories (Requested US\$ 15 000.00; Granted US\$ 15 000.00)
- NSF, Mzuzu University, Department of Geography for the purposes of equipping the GIS, Remote Sensing and computer laboratory with computers and accessories (Requested US\$13 145.90; Granted US\$10 000.00)
- NSF, University of Malawi Chancellor College, Departments of Geography and Earth Sciences and History for the purposes of acquiring one laptop, seven desktop computers, one heavy duty photocopier and one LCD projector (Requested US\$ 16 000.00; Granted US\$ 16 000.00).
- Staff Development Fund (SDF), Mzuzu University, Department of Geography for the purposes of top-up funding to assist Mr Golden Msilimba a staff member in the Department to enrol for a PhD programme at the Free State University in South Africa (Requested US\$13 940.00; Granted US\$13 940.00).
- SDF, University of Malawi Chancellor College, Department of Geography and Earth Sciences, to enable Mr James Chimphamba a staff member in the Department to attend the Regional Training Workshop on the Applications of Global Navigation Satellite System Technologies in Sub-Saharan Africa in Lusaka, Zambia from 25 – 30 June 2006 (Requested US\$ 1 790.00; Granted US\$ 1 790.00).
- Fellowship Fund (FF), University of Botswana, Department of Geology with the purpose of supporting three students to attend the Master of Science Degree Programme in Hydrogeology at the University of Botswana (Requested P 42 000.00, approximately US\$ 7 000.00; Granted P 42 000.00).

For the NSF the Steering Committee's approval was guided by the understanding that recipient member institutions required strengthening for them to contribute meaningfully as a WaterNet member and also that the computers and equipment will enhance the smooth delivery of lectures in the Master degree programme in IWRM and ultimately the quality of the graduates.

The Steering Committee, however, requested that as soon as the equipment is acquired, the Departments should come up with a sustainability plan with an indication of their capacity in sourcing additional funding for the maintenance and replacement of the equipment.

The SDF award for Mr Msilimba was made on the condition that regular progress reports are submitted to the WaterNet Secretariat together with a financial statement as per the memorandum of agreement. Secondly, the WaterNet Steering Committee recommended that the PhD research topic should demonstrate an integrated approach to water resources management. The SDF award for Mr Chimpamba was made on the condition that he submits to the WaterNet Secretariat a report (narrative and financial) together with a full copy of the training material presented.

The FF for Department of Geology, University of Botswana was made on the condition that the research part of the programme reflects the principles of IWRM and that the WaterNet Secretariat and University of Botswana would jointly decide and agree on the research topic and path for the students. A possibility would be that the students be drawn in to carry out their research within the WaterNet Challenge Program on Water and Food (**see section 3.4.2**). The names of the students, their gender and nationality would be provided to the WaterNet Secretariat as soon as the selection is done by the University of Botswana.

3.1.3 Fully staffed WaterNet Secretariat

Due to increased working load within the Secretariat and the need for WaterNet to establish itself as legal entity capable of managing its financial resources the Steering Committee at its 13th Meeting approved the establishment of a WaterNet Programme Officer position within the Secretariat. The job description, terms and conditions of the incumbent were agreed on. The Secretariat was tasked to advertise and recruit the Programme Officer with the assistance of Steering Committee members. The Management Fund budget was adjusted accordingly to enable the establishment of the post.

Following the short-listing and interviews conducted by a special committee for the position of Programme Officer in January 2006, Mr Nicholas (Nick) Tandi was found suitable and employed to join the Secretariat. Mr Tandi joined the Secretariat as from 1 February 2006 on a one year contract subject to renewal on satisfactory performance.

Ms Martha Hondo was promoted and appointed as a substantive Administrator as from 1 May 2006.

As part of WaterNet drive to complement the academic training with professional or proficiency training for water managers in the region (The SADC/WaterNet PCN23 proposal; SADC, 2001), the post of a Network Professional Training Officer has been planned for.

At the 14th Steering Committee Meeting it was resolved that the position be advertised (**see Annex 3** for the job description and conditions) and circulated via email and to insert an advert in the Mail and Guardian Newspaper. It was also agreed that a sub-committee consisting of Ms Beukman, Eng Nyemba and Dr Gumbo would be responsible for the selection and interviews in the recruitment process.

During the reporting period WaterNet Secretariat and members requested for advice from UNESCO-IHE on three occasions as follows:

- Ir Frank Jaspers, 1-15 February 2006 (Legal matters)
- Mr Marco Schouten, 17-27 May 2006 (Economic and financial matters)

- Ms Susan Graas, 30-31 May 2006 (Setting up quality assurance and self evaluation procedures for the IWRM Masters programme)

The tasks for Ir Jaspers and Mr Schouten where as follows:

- To assist and advise WaterNet Secretariat, and Department of Civil Engineering University of Zimbabwe (WREM Trust) in consolidating and strengthening the framework for financial management.
- To assist and advise WaterNet Secretariat in modifying its legal and administrative set-up to maximise regional ownership and operational effectiveness and efficiency.
- To assist and advise WaterNet in the preparation of the launching event of the WaterNet Phase II Project and especially in articulating the relation to the Department of Water Resources in Zimbabwe (Ir Jaspers).
- To accompany the WaterNet Manager to Gaborone, Botswana to investigate the details on WaterNet registration in that country (Mr Schouten).

Ms Graas was invited specifically:

- To assist and advise WaterNet Secretariat and Coordinators of the IWRM Masters Degree Programme on setting up self evaluation procedures for IWRM Master Degree Programme
- To assist in creating an inventory and to formally describe all procedures related to the academic activities of the WaterNet Members offering the programme

All Missions were successful and well appreciated by WaterNet. Further Missions were envisaged from UNESCO-IHE staff as WaterNet prepares for its new status.

3.1.4 Professional financial management achieved

Towards the end of WaterNet Phase I, the Secretariat produced draft “Financial Management and Procedures Manual” and “Procurement Procedures Manual”. The objective of these manuals is to set out the financial policies of the WaterNet programme particularly in view of the anticipated handover from UNESCO-IHE following registration of WaterNet in Botswana.

The two manuals have undergone a review in-line with the requirements of the cooperating partners (mainly Sida and DGIS). The manuals will ensure automatic compliance with the individual requirements of the cooperating partners. The manuals will serve as an instrument for undertaking efficient and sound procurement within the programme, whilst at the same time ensuring a strong degree of transparency, fairness and integrity in the procurement and contract management process. This process is intimately linked to **section 3.1.5**.

The WaterNet Secretariat envisages that by June 2007, it should have capacity to handle the following duties and responsibilities:

- Preparation and maintenance of the financial and management accounting records
- Preparation of the organisation’s budget, management of cash flows and expenditures
- Production of monthly and periodic financial and management reports as required
- Development where necessary and maintenance of the organisation’s internal control systems (procurement and financial management manuals)

- Initiate and facilitate financial audits of WaterNet operations and contracts

These services are currently being provided with the assistance of UNESCO-IHE.

3.1.5 WaterNet legal status established

WaterNet is due to be registered as a legal entity in Gaborone, Botswana before the end of 2006. At the 14th Steering Committee Meeting a report by the WaterNet Secretariat was tabled following a series of meetings by the WaterNet Manager accompanied by Mr Marco Schouten of UNESCO-IHE in May 2005 with law firms and other stakeholders in Gaborone Botswana.

Discussion and meetings were held in Gaborone, Botswana with the following Lawyers:

- Dr Baatlhodi Molatlhegi of Molatlhegi and Associates
- Mr Mboni Falso Manyothwane of Manyothwane and Partners
- Mr Itumeleng Segopolo of Segopolo and Company
- Mr Terence Dambe of Munchin and Kelly
- Mr Parks Tafa of Collins and Newman
- Dr Athaliah Molokomme the Attorney General Republic of Botswana (advice only)

Many views were presented by the various Lawyers. Dr Baatlhodi Molatlhegi of Molatlhegi and Associates and Mr Itumeleng Segopolo of Segopolo and Company promised to submit a detailed response having had a thorough inspection of WaterNet documentation i.e. Constitution, Trust and Strategy. The Lawyers outlined that there were advantages and disadvantages of registering either as Trust, Association or Company limited by guarantee.

The Steering Committee agreed that the Secretariat should pursue the issue of registration seeing that it was important and time was limited. It was recommended that Dr Baatlhodi Molatlhegi of Molatlhegi and Associates and Mr Itumeleng Segopolo of Segopolo and Company should be requested to submit their responses.

The Steering Committee also acknowledged that the registration of WaterNet in Botswana had many dimensions which required the endorsement and discussions at the 7th AGM. Amendments of the current constitution or trust would be necessary so as to comply with relevant Laws in Botswana. It was noted however that the Laws in Botswana were not very different from Zimbabwe and South Africa where Roman-Dutch Law and Common Law structures are operated.

Table 3.1 outlines the activities and tentative dates discussed at the 14th Steering Committee Meeting. It was also noted that the hard-boundary date was September 2007 which marked the end of WaterNet Phase IIa Project. It was also acknowledged that the process of registration and final transfer of financial management and responsibility from UNESCO-IHE to WaterNet (as a legal entity) would require clear definition or revision of WaterNet documentation, procedures, protocols, operational rules, and financial management systems. All these would be done in stages after registration and possibly continue after September 2007.

Table 3.1 Actions and target dates for WaterNet Pre-and-Post registration

Activity	End Month of	Year
Approach and hire legal assistance	June	2006
Agree on terms of reference and contract Law firm	July	2006
Steering Committee decides on preferred governance structure based lawyers submission during an Extra-Ordinary Meeting	August	2006
Draft document for registration ready	August	2006
Checks and corrections made by WaterNet Secretariat, Steering Committee and UNESCO-IHE staff	September	2006
Registration document to be revised at the 15 th Steering Committee Meeting	October	2006
Revised document to be presented at the 7 th AGM	October	2006
Lodge document for registration	December	2006
Open a bank account in Gaborone, operated by WaterNet	January	2007
Hire financial manager/accountant in Gaborone	February	2007
Revise organisational arrangements (Secretariat and management board)	March	2007
Revise accounting codes	March	2007
Renegotiate funding contract with Sida	April	2007
Submit to DGIS WaterNet Phase IIb strategy	November	2007

The Steering Committee recommended that a sub-committee consisting of Prof Pieter van der Zaag assisted by Mr Marco Schouten, Eng Wilson Nyemba and the WaterNet Manager to work on the registration process.

The hosting agreement for the WaterNet Secretariat was renewed at the WaterNet Phase II launch event and signed by UNESCO-IHE Institute of Water Education, Delft, representative Prof. Pieter van der Zaag and the University of Zimbabwe, represented by the Vice Chancellor Prof. Levi Nyagura (see **Annex 4**).

The signing was witnessed by the guest of honour, Minister of State for Water Resources and Infrastructural Development in Zimbabwe, Honorable Engineer Munacho Mutezo, the Swedish Ambassador to Zimbabwe His Excellency Mr Sten Rylander and the Netherlands Deputy Ambassador to Zimbabwe Her Excellency Mrs Leonie Cuelenaere.

3.1.6 Financial sustainability through income generation and contributed funds

WaterNet in partnership with Cap-Net, West Africa Network (WA-Net), Nile Basin Capacity Building Network for IWRM and Central America and the Caribbean network (REDICA), were successful in a proposal entitled “Capacity building for integrated water management in Africa and the Caribbean” submitted to the European Commission through United Nations Development Programme (UNDP) in partnership with Global Water Partnership (GWP).

The news of the Grant offer totalling Euro 2.49 Million was announced in late January 2006. The project was among 97 successful ones in the first round of projects funded by this Facility. The multinational and multiple partner project is funded through the EU-ACP Water Facility with contribution from GWP (Euro 0.35 Million) and UNDP (0.49 Million) bringing the total eligible cost of action to about Euro 3.3 Million over a three year period. It is expected that WaterNet would be able to access up to Euro 0.3 Million under this arrangement.

The long-term viability of WaterNet will greatly depend on whether members can fund their own activities from fees and support from regional, national and local organisations. **Table**

3.2 provides a summary of the funding status of WaterNet programme during the reporting period.

Table 3.2 Summary of WaterNet funding through different projects and contributors: WaterNet Phase II (2005-2009)

Contributor	Amount (Million Euro)
DGIS ^a	4.8
Sida	2.6
Challenge Program on Water and Food	1.3
EU-ACP Water Facility/GWP/UNDP	0.3
Total in cash	9.0
Members contribution ^b	2.0
Grand Total	11.0

- a) Assuming that DGIS grants the other possible 2.4 Million Euro after September 2007 i.e. WaterNet Phase IIb.
- b) In kind and dispersed cash contributions.

3.1.7 Monitoring, evaluation and reporting procedures in place

According to article 6 of the Sida contract WaterNet in collaboration with UNESCO-IHE have agreed to carry out an Environmental Impact Assessment (EIA) of WaterNet activities in accordance with Sida Guidelines for the Review of EIA (2002) before 31 December 2005.

The Environmental Impact assessment of the WaterNet Programme Report was completed in February 2006 and submitted to the supporting partners. Some positive and negative impacts of the WaterNet programme were observed. The report raised many interesting issues which would normally be overlooked in capacity building programmes like WaterNet. The report finally presented certain actions to be undertaken by WaterNet in terms of monitoring and evaluation of progress and reporting requirements.

The report was discussed at the 14th Steering Committee Meeting and a number of comments were raised which included the ones below:

- The report was too general
- There was need to capture issues contributing to air pollution and use of natural resources by WaterNet
- The title of the report should be reconsidered as the relationship between WaterNet activities and the bio-physical environment was not clear
- There was need to look at the positive impacts and to select the critical factors for WaterNet members
- The word “Environmental” could be taken out because it was too general
- The report should be labelled as “draft for discussion”
- The interest of Sida was on what WaterNet had done positively
- As an impact assessment, the report was a good start but did not address poverty alleviation or reduction
- Social assessment was not really included

The Steering Committee found the report satisfactory and agreed that it be distributed to WaterNet members and presented for discussion at the 7th AGM. It was also agreed that the lead

author, Dr Dominic Mazvimavi would make an oral presentation at the 7th AGM taking into consideration issues raised at the Meeting.

The Secretariat acknowledged the input from Dr Mazvimavi in particular and the Steering Committee members, Mr James Chipamba who reviewed the document, Sida staff and Dr Erik de Ruyter van Steveninck of UNESCO-IHE for the conceptual framework and reviewing the draft document.

WaterNet in collaboration with UNESCO-IHE has also agreed (Article 8 of the Sida contract) to develop a strategy on how the programme shall address HIV/AIDS and Gender issues.

The two strategies have been under development since the beginning of the year. The final draft reports have been submitted by the Institute for Water, Sanitation and Development (IWSD) and the Southern Africa HIV/AIDS Information Dissemination Services (SafAIDS), respectively and the two are being reviewed by the Centre of Applied Social Sciences (CASS). The process of clearly mainstreaming Gender and HIV/AIDS within WaterNet activities has been a bit problematic due to lack of understanding and conceptualisation on how the two can be integrated within IWRM.

A lot of input and clarification has been made through Sida facilitated workshops and involvement of UNESCO-IHE staff. The final reports are due for completion in July 2006.

The main challenge to WaterNet would be the integration of the above strategies into WaterNet Phase II Strategy: 2005-2009 without significant financial and budgetary implications. Secondly, the implementation of the strategies has to ensure that there is no deviation from WaterNet core business.

3.2 DELIVER AND STRENGTHEN THE REGIONAL MASTERS PROGRAMME

3.2.1 Deliver the masters programme at two host institutions

The programme for the 2005-2006 intake is progressing well with all the 24 students carrying out the dissertation part. Ten students from the University of Zimbabwe, nine from the University of Dar es Salaam and five from the University of the Western Cape are due complete their studies and graduate before the end of the year.

The programme for the 2006-2007 intake started on 13 February 2006 at the University of Zimbabwe (UZ) with 15 WaterNet funded students (6 female and 9 male) and at the University of Dar es Salaam (UDSM) with 15 WaterNet sponsored (3 female and 12 male), and nine sponsored by Applied Training Project (ATP) under the Nile Basin Initiative (NBI) programme (all male) and one male by World Meteorological Organisation (WMO).

The profile of the WaterNet funded students enrolled at UZ and UDSM is presented in the **Table 3.3**.

Table 3.3 List of IWRM students for the 2006-2007 intake

Surname	First name	Gender	Nationality	Specialization
<i>University of Zimbabwe, Department of Civil Engineering</i>				
1 Chawatama	Ronald	M	Zimbabwe	WRM
2 Chibulu	Brenda	F	Zambia	WRM
3 Chinyama	Annatoria	F	Zimbabwe	WfP
4 Dondofema	Farai	M	Zimbabwe	WRM
5 Kamtukule	Godwin	M	Malawi	WfP
6 Kassim	Kalunde	F	Tanzania	WfP
7 Khosa	Sangwani	M	Malawi	WRM
8 Makado	Patience	F	Zimbabwe	WfP
9 Mamba	Geoffrey	M	Malawi	Hyd
10 Mganga	Alphonse.	M	Tanzania	W&E
11 Mufute	Ngonidzashe	M	Zimbabwe	WRM
12 Nyoni	Kosamu	M	Zimbabwe	WRM
13 Phiri	Lazarus.	M	Malawi	WfP
14 Sichone	Priscilla	F	Zambia	W&S
15 Tiroyamodimo	Tshoganetso	F	Botswana	WfP
<i>University of Dar es Salaam, Department of Water Resources Engineering</i>				
1 Mungai	Damaris	F	Kenya	W&S
2 Benedict	Joyce	F	Tanzania	Hyd
3 Masilela	Musa	M	Swaziland	W&E
4 Sibande	Hyde	M	Malawi	Hyd
5 Madungwe	Immaculate	F	Zimbabwe	W&E
6 Kibassa	Deusedit	M	Tanzania	W&S
7 Nkiwane	Lwazi	M	Zimbabwe	Hyd
8 Mwamsamali	Oswald	M	Malawi	W&S
9 Kimani	Daniel	M	Kenya	Hyd
10 Casmiri	Damian	M	Tanzania	W&S
11 Leshoboro	Nena	M	Lesotho	W&S
12 Mushi	Innocent	M	Tanzania	W&E
13 Fidelis	Rehema	M	Tanzania	W&E
14 Temba	Theobald	M	Tanzania	Hyd
15 Sadiki	Ramadhani	M	Tanzania	W&E

Specialisation Key:

W&E Water and Environment

WfP Water for People

WRM Water Resources Management

Hyd Hydrology

WaterNet advertised for the 2007-2008 intake for the Masters degree programme in Integrated Water Resources Management. The major highlight was the introduction of the 6th specialisation on Water and Land (see **Annex 5**). The deadline for receipt of applications was set for 15 September 2006 with the programme scheduled to start on 12 February 2007.

The advertisement was circulated electronically via the members and through the GWP-SA, WARFSA and Cap-Net mailing list. In addition the advert was due to appear in the July, August, and September issue of the Water Wheel Magazine of the Water Research Commission of South Africa.

The decision to introduce the Water and Land specialisation was made at the 14th Steering Committee Meeting and was supported by:

- The need to link research and education i.e. Challenge Program on Water and Food and the Smallholder Systems Innovation research with the Water and Land specialisation (**refer to Section 3.4.2**)
- The need to consolidate capacity building efforts in short courses and the Masters programme within this specialisation
- The prospect of University of Botswana becoming a host institution for WaterNet for registration purposes and possibly hosting some of the Secretariat functions in the future (**refer to Section 3.1.5**).

3.2.2 Offer five specialisations

As per the approved 2006 Workplan, WaterNet intended to offer five specialisations hosted as follows:

- Water Resources Management, University of Zimbabwe
- Water for People, Polytechnic of Namibia
- Water and society, University of the Western Cape
- Water and Environment, University of Malawi
- Hydrology, University of Dar es Salaam

The WaterNet Secretariat received a letter from the Vice Chancellor of the Polytechnic of Namibia (PON) indicating that PON was not going to be able to host the Water for People Specialisation in 2006 due to a critical staffing problem.

At the 14th Steering Committee Meeting it was agreed that the WaterNet Secretariat should make urgent plans in consultation with the core-host institutions of the Masters programme to identify the most suitable and convenient host for the Water for People Specialisation. The Secretariat was also asked to investigate if there were any special arrangements that could be made to strengthen the human resource capacity of PON through opportunities via the Staff Development Fund.

The other specialisation host institutions indicated that they would be ready to host the specialisations during the second half of 2006.

During the reporting period, WaterNet Secretariat organised the first ever 2-day meeting of the Coordinators of the Master Degree Programme in IWRM. The meeting was held in Cape Town on 30-31 May 2006. The agenda of the meeting included the following:

- Improving communication channels between host institutions
- Quality assurance and self-assessment procedures
- Implementation of the IWRM Master Programme
- Recruitment of Professorial Chairs
- Progress reporting (narrative and financial)
- Management of the Fellowship and MSc Dissertation Funds

- Audits
- Student welfare and WaterNet Fellowship contract with students

The meeting was useful and fruitful as it presented an opportunity for host institutions to know what was happening at other institutions. The Steering Committee agreed that there should be regular meetings of the Coordinators of the IWRM Masters programme in future to ensure consolidation of the programme especially in view of the establishment of quality control and quality assurance procedures. It was also agreed that it is only in this way that members will take full ownership of the Master degree programme with minimal support from the WaterNet Secretariat and Steering Committee.

Formal reports and minutes emanating from the meetings would be discussed at the WaterNet Steering Committee meetings.

3.2.3 Fellowship Fund established

The 6th AGM approved granting of 30 fellowships from the Fellowship Fund to deserving candidates as per the Work plan of 2006. With the approval of the EU-ACP Water Facility funding for WaterNet there is a prospect of increasing the Fellowships by 2 (32 in total) for the 2007 intake.

The Steering Committee at its 14th Meeting resolved that the Secretariat should develop an offer letter/contract in consultation with the host institutions of the Master degree programme so as to formalise the award of the fellowship with individual students.

3.2.4 Establish review procedure and quality control system for the Masters programme

WaterNet has set itself to establish a regional review procedure for continuous evaluation and monitoring of the WaterNet Master programme in IWRM, establish a regional Academic Review Board during the Phase II Project.

At the 13th Steering Committee Meeting it was resolved that the modules for Master degree programme be reviewed. The Secretariat had since identified individuals from the region and a staff member from UNESCO-IHE Institute for Water Education to carry out the review.

It was also noted that the review process needed to be linked to the Professorial Chair Fund and the activities of the Coordinators of the Master degree programme. Five WaterNet-SADC Professorial Chairs would be established in IWRM.

The 14th Steering Committee endorsed the appointment of a task team to conduct the curriculum review of the WaterNet Masters programme and secondly that the Secretariat in consultation with the University of Zimbabwe and University of Dar es Salaam, who are the main host institutions for the Masters programme, advertise for the position of two Professorial Chairs to be stationed and appointed at the two institutions by February 2007.

During the reporting period the WaterNet Secretariat initiated a tracer survey targeted at the more than 80 graduates from Master Degree programme in IWRM. The tracer survey seeks

the opinion of the graduates about the value of the programme in light of their professional career and work experience (see Annex 6).

The purpose of this tracer survey is:

- To capture the opinion, suggestions and experiences of IWRM participants about the presentations of the IWRM programme, possible gaps in the curriculum, and seek their recommendations for improving the quality and relevance of this programme.
- To use the survey results as input in the formation of the “WaterNet IWRM Alumni Association”.
- To maintain an up to date record of the WaterNet IWRM Alumnus.

Eng Thamsanqa Mpala, a Masters participant who graduated in 2002, was found willing to administer the questionnaire and analyse the results. This will ensure objectivity of the findings. Eng Mpala has previously carried out a similar survey for the MSc in Water Resources Engineering and Management degree Programme at the UZ.

The Steering Committee at its 14th meeting welcomed this initiative and agreed that it will also serve as input to the impact assessment of the WaterNet programme.

3.2.5 Establish with WARFSA the WaterNet MSc Dissertation Fund

In the Phase II Project WaterNet has established the WaterNet Master Dissertation Fund for support of 30 Master dissertation research projects per year within the WaterNet Master Programme (projected to rise to 40 or 50 through funding from other sources). Negotiations with WARFSA are ongoing to fund this activity jointly. Research projects like the WaterNet Challenge Program on Water and Food also contribute to the Fund.

3.3 DEVELOP AND DELIVER PROFESSIONAL TRAINING

3.3.1 Launch WaterNet professional training programme

As part of WaterNet drive to complement academic training with professional or proficiency training (the SADC/WaterNet PCN 23) the network is expected to play a leading role in the professional training domain. Capacity building demands and training particularly related to strengthening of river basin organisations and the development of country IWRM and Water Efficiency Plans coordinated by GWP-SA have been identified.

WaterNet has become an attractive entry point in the delivery and upscaling of short courses. Several partners are approaching WaterNet with capacity building plans which have to be implemented. The Secretariat has identified an urgent need to develop a clear Professional Training Strategy for WaterNet. The short courses need to be properly targeted, strategic as an intervention and be part of a bigger picture within the framework of IWRM.

WaterNet identified IWSD as one of the key members in developing and implementing the Professional Training Strategy. The strategy should capture the new challenges, initiatives and trends within the SADC region as well as define how training impact will be assessed, as well as financial sustainability.

WaterNet Secretariat drafted terms of reference for a task team to be led by IWSD to develop the Professional Training Strategy. The terms of reference were agreed upon at the 14th WaterNet Steering Committee meeting. In summary the tasks will include but not limited to the following:

- i) Inventorising and evaluating the various short term capacity building interventions that have been carried out in the sector through out the region in recent years
- ii) Carrying out a situation analysis of the sector needs in relation to short term capacity interventions taking into account plans already developed by partners such as GWP-SA
- iii) Carrying out skills mapping of the training institutions in the sector in relation to short term capacity interventions (clearly bringing out their areas of expertise in the sector)
- iv) Proposing a capacity building programme for short term interventions describing in detail the course to be given, the mode of delivery and the skills needed to implement the Professional Training Strategy (with particular attention to the SADC/WaterNet PCN 23 document)
- v) Proposing monitoring and evaluation mechanism and follow-up strategies (impact assessment) to ensure that the short term capacity building interventions are put to practical use
- vi) Proposing a budget estimate for implementing the Professional Training Strategy
- vii) Indicating and demonstrating income-generation activities and financial sustainability of the Professional Training Strategy

Global Water Partnership Southern Africa (GWP-SA) is facilitating the process of developing Integrated Water Resources Management and Water Efficiency (IWRM/WE) plans in Malawi, Zambia (supported by Canadian International Development Agency), and Mozambique and Swaziland (supported by the Dutch government).

Successful preparation of IWRM/WE plans will largely depend on two key factors:

- a) Availability of financial resources especially in developing countries
- b) Availability of capacity (human resources) with the necessary skills to spearhead the development of the plans.

GWP-SA expects WaterNet to contribute in the building of requisite human resource for the development of the plans.

The WaterNet Phase II Strategy allows for strengthening of the partnership with GWP-SA. GWP-SA is a supporting member of WaterNet and hence the consultative work programme and strategy development for both network institutions. WaterNet not only reaches researchers but also the Country Water Partnerships coordinated by GWP-SA which present a different constituency (i.e. multi-stakeholder platforms that include government ministries, private sector, NGOs, researchers and practitioners).

During the reporting period GWP-SA and the WaterNet drafted a Memorandum of Agreement (MoA) which will be signed in the second half of 2006 to ensure effective delivery of short courses linked to the development of IWRM/WE plans. The MoA acts as a formal commitment from both parties in the planning and implementation of short courses identified and prioritised in the regional GWP-SA capacity building plan.

During the reporting period WaterNet in collaboration with its partners planned and delivered short courses detailed below:

Water Supply, Sanitation and Hygiene Short Course

As part of the Streams of Knowledge Initiative, WaterNet in partnership with Cap-Net is in the process of formulating a Training of Trainers Course on Water Supply, Sanitation and Hygiene (WASH) in the context of IWRM. This has been necessitated by the realisation that there is an apparent contradiction in the MDGs between Goal 7 (Ensure environmental sustainability) and target 10 (by 2015, reduce by half the proportion of people without sustainable access to safe drinking water and sanitation).

Increasing water supply and sanitation services delivery will lead to increasing volumes of wastewater, which, without being properly managed will exacerbate the ongoing water resources destruction. The funding for this course has been granted under a broader programme for Capacity Building for IWRM in Africa and the Caribbean funded through the EU-ACP Water Facility Funding (**see section 3.1.6**).

So far it has been suggested that the way forward is to develop a programme, that looks into the specific needs and priorities for the WASH sector, the areas which needs to be updated to incorporate the principles of IWRM and other developments such as ecological sanitation. The activity will be discussed and finalised during the Stockholm International Water Week in August 2006. The aim is to roll out at least one training course before the end of 2006.

Zambezi River Basin IWRM training programme

The consortium of Ramboll Natura and Stockholm International Water Institute (SIWI) proposed the joint delivery, with WaterNet, of a programme to build capacity for supporting and consolidating the development process of IWRM in the riparian countries of the Zambezi River Basin. The National Steering Committees (NTSC's) under the ZACPRO 6.2 Project are considered to be the main target group.

The IWRM-Zambezi training programme is a direct response to a request from the riparian countries in the Zambezi River Basin. Sida, responding to this request, subsequently invited the consortium of Ramboll Natura (lead organisation) and SIWI to prepare a proposal for the IWRM training programme involving WaterNet.

WaterNet was identified as a regional partner because of its expertise in delivering IWRM training, its regional coverage and ability to promote ongoing dialogue and regional and international networking. This also became a strategic partnership for Ramboll Natura and SIWI to address long term ownership and sustainability of the programme. WaterNet shall identify on a continuous basis some of the organisations, besides the NTSC's that contribute directly or indirectly to the ZAMCOM (Zambezi Watercourse Commission) development process that are eligible for training.

WaterNet assigned Mr Lewis Jonker from the University of Western Cape, Department of Earth Sciences as the network coordinator from one of its member institutions, to also be part of the facilitation team. The International Water Management Institution (IWMI) regional office based in Pretoria, South Africa a WaterNet member will be responsible for organising the training sessions that will be conducted in Zambia.

A workshop preparation meeting was held from 12-16 June in Lusaka, Zambia during which the partners shared a common understanding and formulated an action plan for the implementation of the training programme.

Sida confirmed funding for the submitted proposal in May 2006. The training Module will be delivered in Sweden from 2-20 October 2006 and in Zambia from 29 January to 9 February 2006 (see **Annex 7**).

Regional Refresher Course on Public Private Partnership in the Southern Africa Water Sector

The refresher course is part of a series of seminars that aims at an exchange of professional experience thereby establishing communities of best practice in IWRM. It targets the WaterNet and UNESCO IHE alumni. This approach leads to a quality-assured learning experience where professionals can increase competency and strengthen individual and organisational capacity, and results in the continued upgrading of alumni's knowledge and skills, developing a knowledge base in tune with current sector demands.

The refresher course seeks to expose participants to the latest thinking of Public Private Partnerships placed in a development context and provide a platform to share experiences and critique the concept based on personal experiences and evaluations. The course consists of three parts. Initially, participants will take part in an on-line preparation phase (4 September to 12 November 2006). The face-to-face workshop to be hosted by the Polytechnic of Namibia will then follow from the 4-9 December 2006. The papers presented at the face-to-face workshop will be edited and published as a book. Finally the refresher course will culminate in the creation of an on-line community-of-best-practice.

UNESCO-IHE and WaterNet in a joint application secured funding amounting to 70 000 Euro to run the refresher course from the Netherlands Organisation for International Cooperation in Higher Education (Nuffic) (Grant number CF2855/2006 dated 21 December 2005).

Inter-sectoral water governance in integrated water resources management in southern Africa seminar

The WaterNet Secretariat met with, InWent Germany Capacity Building Organisation, GWP-SA and International Water Management Institute (IMWI) staff on 6 April 2006 to discuss cooperation in capacity building on Inter-sectoral Water Governance for IWRM in the SADC region. This initiative is to offer courses promoting the concept of IWRM; water governance; and stakeholder participation.

The topics to be covered include among others, inter-sectoral cooperation towards effective "integrated" planning and management of water and land resources and water governance issues at transboundary vs national vs local levels. The three day seminar with up to 36 participants has been planned for 21-23 November 2006 in Maputo, Mozambique to share experiences and develop concepts, collate material for modules which may be used by river basin organisations upon request. Most of the participants for the seminar will come from Country Water Partnerships. The seminar fits into the GWP-SA capacity building plan for IWRM/WE planning.

InWent and GWP-SA will fund the seminar with WaterNet coordinating the development of the material and identifying suitable facilitators. The roles and responsibilities between InWent, GWP-SA and WaterNet will be spelt out through a letter of intent from the three partners.

WaterNet and FAO short courses on water and land

In February 2006, the Food and Agricultural Organisation of the United Nations (FAO) expressed an interest to offer short courses jointly with WaterNet on irrigation. WaterNet pursued this opportunity not only to offer courses in irrigation but also as an opportunity to initiate the Water and Land Specialisation in the Master degree programme in IWRM which has never been offered previously.

To this end, the WaterNet Secretariat held a meeting with FAO and three members, Harry Oppenheimer Okavango Research Centre (HOORC), University of Botswana, the Department of Agricultural Economics, National University of Lesotho and the Department of Soil Science and Agricultural Engineering, University of Zimbabwe.

The planning workshop resolved to offer “Crop Water Requirements and Irrigation Scheduling” as the first course under the theme Water and Land. This will be offered from 18-23 September 2006 in Maseru Lesotho with the Department of Agricultural Economics, National University of Lesotho as the host. Other planned courses in 2007 include:

- Irrigation maintenance and management
- Wetland ecosystems and ecology
- Catchment management in practice

The materials for the course will be gleaned from the WaterNet Master programme modules and FAO training manuals. The courses are also meant to blend with the proposal by WaterNet and the Consultative Group on International Agricultural Research (CGIAR) on capacity building in the Limpopo basin as part of the Challenge Program on Water and Food (**see below**)

The WaterNet Steering Committee at its 14th meeting supported the partnership with FAO as an important linkage of WaterNet to professionals in the irrigation and food production sector, where FAO has been operating for a long time in Southern Africa. The materials developed from the short courses in this theme may also be used in developing modules under the Water and Land specialisation of the IWRM Master degree programme.

Challenge Program on Water and Food capacity building courses

WaterNet in collaboration with Challenge Program on Water and Food Managing Centre, within the CGIAR are putting together a proposal for the next round of the EU-ACP Water Facility Funding.

The development of the proposal is being led by the Department of Soil Science and Agricultural Engineering at the University of Zimbabwe as a WaterNet member, The Limpopo Basin Coordinator for the Challenge Program on Water and Food, the

Research Advisor for the WaterNet Challenge Program on Water and Food (PN 17) and the Capacity Building Officer for the Challenge Program on Water and Food.

The proposal is intended to solicit funds to develop training programmes targeted mainly to extension officers in an attempt to bridge the gap between research (output from the Challenge Program on Water and Food research) and extension.

InWent facilitation skills training of trainers course

In preparation for stronger and longer cooperation with WaterNet and other regional/supra-regional networks (including GWP-SA), InWent invited WaterNet and GWP-SA to a training of trainers (training of facilitators) course which is scheduled for the 17-22 July 2006 in Johannesburg South Africa. The workshop has the following objectives:

1. to familiarise participants with InWent as a capacity building institution and its concept of training and facilitation techniques and learning methods that focus on interactive and participatory learning and action experiences for sector specialists, programme managers, policy makers in the fields of water resources and natural resources management (land and water management).
2. provide participants with knowledge on recent trends in training and management methodology and capacity development
3. to enable participants to plan, manage and conduct InWent, WaterNet and GWP-SA workshops/seminars/training by applying the above concepts and methods.

Five individuals from WaterNet member institutions would be invited to attend and the costs of participating will be borne by InWent. The Steering Committee at its 14th meeting supported the participation of WaterNet in this course. This would strengthen the capacity of WaterNet to deliver short courses, an objective which is receiving greater focus and attention in the WaterNet Phase II project. This is a strategic step towards addressing long term sustainability since short courses are vital for broadening the funding base of WaterNet.

Gender and HIV/AIDS training of trainers' course

WaterNet (IWSD and SafAIDS) have partnered with GWP-SA for the implementation of a training of trainers course primarily aimed at building the capacity on how to mainstream HIV/AIDS and Gender into IWRM. The course was initially scheduled for 22-25 May 2006 but was postponed due to unforeseen circumstances to the second half of 2006.

The training of trainers' course is under the umbrella of the Partnership for Africa's Water Development (PAWD) Project coordinated by GWP-SA. The overall purpose of the project is to contribute towards the achievement of water related MDGs and WSSD targets supporting sustainable water resources management in Africa by facilitating action oriented IWRM planning and implementation in selected African countries.

One of the key outputs of this project therefore, is to build capacity at regional and country levels for IWRM planning and implementation. Gender and HIV mainstreaming in the IWRM planning process was identified as a one of the issues that should be considered for the regional capacity building programme.

WaterNet will advertise the training of trainers' course and will also assist in the identification of the relevant participants. At least one of the resource persons will come from a WaterNet institution. WaterNet will also fund the development of the post-training package. The new dates for the course will be established in consultation with GWP-SA.

This course is expected to provide more concrete and pragmatic steps and guidelines on how HIV/AIDS and Gender can be mainstreamed in IWRM.

3.3.2 WaterNet Professional Training Officer

Refer to section 3.13 and Annex 3.

3.3.3 Catchment partnership on translating IWRM principles to management

This activity is on-going in collaboration with GWP-SA. There is a need for WaterNet to also focus on those catchments where there is active research e.g. Limpopo Basin for the Challenge Program on Water and Food and the Thukela and Pangani Basins for the SSI project. WaterNet will explore synergies and possible collaboration with the Danida Regional Programme Support for Environmental Assistance to the Southern Africa Region on Integrated Water Resources Management.

3.3.4 English for water managers course

The *English for Water Managers* course was not presented during the reporting period because there were no applicants from non-English speaking countries in the IWRM Master degree programme for 2006-2007 intake.

Discussions between the WaterNet Secretariat and Africa University, Faculty of Humanities and Social Sciences who offer the course are that the institution should not focus only on servicing the *English for Water Managers* course but also to provide short (one or two day) seminars on communication skills, communication in negotiation, writing and presentation skills to all Masters students.

3.4 REGIONALISE AND STRENGTHEN RESEARCH IN IWRM

3.4.1 Research capacity building

This is an ongoing activity conducted mainly through the WARFSA. The WARFSA is in its Phase III project.

3.4.2 IWRM research

WaterNet is involved in two collaborative research programmes *viz.* the Challenge Program on Water and Food, where WaterNet is coordinating an IWRM research programme in the Limpopo Basin with 19 partner institutions and the Smallholder System Innovation Watershed Management (SSI Programme) which involves 5 partners (4 WaterNet members) who conduct research in river basins in Tanzania (Pangani) and South Africa (Thukela).

The WaterNet Challenge Program on Water and Food (CPW&F) Project Number 17 (PN17) is a trans-institutional inter-disciplinary project within the Consultative Group on International Agricultural Research (CGIAR). The WaterNet project takes on the challenge of developing a framework for new IWRM based water governance from village to basin scale in the Limpopo Basin, which integrates green and blue water management for improved rural livelihoods. The project goal is to contribute to improved rural livelihoods of poor smallholder farmers through the development of an IWRM framework for increased productive use of green and blue water flows and risk management for drought and dry-spell mitigation at all scales in the Limpopo basin.

The highlights during the reporting period included:

1. Presentations at two scientific meetings *viz.* the SADC Land and Water Management Applied Research Programme Scientific Symposium “*Land and Water Management for Sustainable Agriculture*”, held in February in Malawi and the SSI programme Scientific Meeting held from 23-27 January 2006 in Same, Tanzania.
2. Fieldwork for the 2005-6 field season: November to May is the main field period as it is the agricultural season and the rainy season in the Limpopo Basin.
3. The Project Executive Committee met on 4 May 2006.

To date eleven Masters students have completed (**see Annex 8**) and 15 are currently doing their fieldwork or write-up. This includes students from eight different countries, working in four of the riparian countries and registered with nine different universities.

All five PhD candidates are now registered and have started their fieldwork. No effort was made to establish a diversity of candidates, and this is reflected in the highly skewed demographics (four of the five candidates are male Zimbabweans). WaterNet members and partners responsible for PhDs followed their own institutional procedures in recruiting PhD candidates. This supports the principle of decentralisation, but has led to imbalances.

Fieldwork progress has been better in the 2005-6 season than the 2004-5 season since more funds were available, although there are still problems with delays in the release of research funds. Socio-economic surveys were carried out in all pilot catchments on the socio-economic conditions of smallholder farmers, using an instrument developed in collaboration with another Challenge Program Project (PN1, led by ICRISAT). Field trials were carried out in Zimbabwe on soil-water management techniques and in South Africa on rainwater

harvesting and drip irrigation. Hydrological fieldwork and modelling were carried out in Mozambique, Zimbabwe and South Africa.

Institutional fieldwork and surveys were carried out in Mozambique, Zimbabwe and South Africa. Baseline data collection has also been continuous during the period under review and progress has been made. The following baseline data has been collected: climate, hydrology, geology, population (incomplete) and land use (incomplete).

Relations with the project Managing Centre (to which WaterNet reports) has been problematic in the period under review, with major delays in disbursement of funds. However, many of the problems have been cleared up and it is hoped that the submission of a steady stream of progress reports and project management documents will improve the situation. The WaterNet Secretariat and the Project Executive Committee are closely monitoring partners' progress, and steps are being taken to ensure that the partners whose work has fallen behind are able to produce results.

It is anticipated that the following will be achieved in the second half of 2006:

1. Resolution of outstanding issues with Managing Centre to be completed by the end of July 2006.
2. All partners to have reached acceptable levels of progress before the end of the dry season or tasks and budgets to be reallocated at the September 2006 Project Executive Committee meeting.
3. Closer liaison between WaterNet Secretariat and the supervisors of PhDs in order to better monitor progress and integration.

The Smallholder System Innovations in Integrated Watershed Management (SSI), Strategies of water for food and environmental security in drought prone tropical and subtropical agro-ecosystems (Project period: 1 July 2003 – 30 June 2008) is an associated WaterNet research project and is thematically linked to WaterNet CPW&F PN17.

Partner institutions are: UNESCO-IHE, International Water Management Institute (IWMI), University of KwaZulu-Natal, School of Bioresources Engineering and Environmental Hydrology (BEEH), Sokoine University of Agriculture, Soil and Water Management Research Group (SWMRG), Stockholm University, Department of Systems Ecology (SU).

There were some changes in the group of researchers in the SSI programme during the reporting period. Mr Job Rotich completed the SSI-research group, replacing Mr Khumbu Zuma, who resigned in June 2004. The PhD candidate Ms Jeniffer Kinoti was asked in August 2005 to resign from the SSI programme after failing to meet the requirements at UNESCO-IHE. Her tasks will be taken up by a Post-Doctoral fellow at IWMI Pretoria, South Africa. The PhD candidate Mr Claudious Chikozho also resigned from the SSI programme.

The pilot catchment set-up that was established in 2004, has been maintained and enhanced. Main set-up consists of rainfall-runoff and on-farm water balance measurements. Currently all PhD researchers have approved proposals and are collecting data for their research. During the 3rd Scientific workshop that was held from 23-27 January 2006 in Same, Tanzania the researchers identified many joint research possibilities and are working out several joint research products. Most of the PhD supervisors attended the meeting in Same and they supported the joint research.

Three MSc students from the University of Zimbabwe (two WaterNet Masters students in IWRM and one student from Water Resources Engineering and Management MSc programme at the University of Zimbabwe) and one MSc student from UNESCO-IHE finalised their MSc thesis within the SSI programme. Two students from Stockholm University did their MSc fieldwork in Bangalala, Tanzania within the SSI programme. One MSc student from Delft University of Technology completed his practical work in the Makanya catchment, Tanzania within the SSI programme.

The outreach component of SSI was launched in March 2005 during the outreach workshop in Moshi, Tanzania. All researchers attended the meeting where the SSI outreach workplan was finalised. The aim is to actively involve all stakeholders in both catchments in the research activities. An outreach person was assigned in both basins to work with the researchers.

The progress of the SSI programme is captured in the Annual progress report 2005, finalised in April 2006. Other material that has been produced under the SSI programme can be found on the following internet page: www.unesco-ihe.org/ssi.

3.4.3 Funding for new research activities

The WaterNet Steering Committee at its 12th meeting held in Harare recognised the Eco-technologies Research (renamed to “Sustainable Water and Sanitation for Africa”) as an important research initiative, which would contribute towards WaterNet research efforts. WaterNet in collaboration with UNESCO-IHE are the lead institutions in developing the research proposal and seeking funding.

The task team which was constituted to pursue the development of the research project submitted the draft fully-fledged proposal to the WaterNet Secretariat at the end of June 2006. At the WaterNet 14th Steering Committee meeting it was noted that:

- WaterNet would have research topics linked to IWRM Master degree specialisations
- The proposal was on the table for quite some time after having been conceptualised 4 years ago.
- The draft proposal had been submitted and was now ready to circulate to members for comments and then sell to donors.
- The project had a big budget for research and development contributing to water and supply and possibly needed to be funded in phases.

3.4.4 WaterNet-SADC Professorial Chairs in IWRM

The WaterNet Professorial Chairs are meant to play a key role in supporting research capacity building in the region, and will work closely with WARFSA in assisting higher learning institutions in the region to formulate and carry out research. In addition, the WaterNet Chairs will identify and create opportunities for Master degree research to address the relevant issues in the region. In a more general sense, they will work towards advancing the profile of IWRM and raising the standing of the water profession. The latter is an important aspect of capacity building since career and job opportunities depend on a recognised demand by society.

The Professorial Chairs, while being widely focused on IWRM, will have specific orientations relevant to the six specialisations of the IWRM Master degree programme (water and environment, water and society, water and land, water for people, water resources management and hydrology).

Following the decision of the Steering Committee at its 14th meeting, the Secretariat made consultations with the University of Zimbabwe and University of Dar es Salaam, who are the main host institutions for the Masters programme, to advertise for the position of two Professorial Chairs to be stationed and appointed at the two institutions in 2007 (**see Annex 9**). Consultations have also been made with the SADC Water Division.

The terms of appointment and operational procedures for the Professorial Chairs are being drafted and would require approval by the Steering Committee before the appointments are made.

3.5 RAISE AWARENESS AND UNDERSTANDING IN IWRM

3.5.1 WaterNet outreach activities

Raising awareness of IWRM has up to the present primarily been pursued through the annual WaterNet/WARFSA/GWP-SA Symposium. The symposium has grown from a gathering of a small number of IWRM converts to the premier IWRM event on the SADC calendar. The best papers are published in *Physics and Chemistry of the Earth*, an Elsevier international peer reviewed science journal.

In addition to being the premier scientific gathering for IWRM in the SADC Region, the Symposium has expanded to include Workshop sessions with water sector specialists during which scientific papers are dissected and analysed in order to tease out the implementation implications of the research that is conducted in the region. These will be developed into policy briefings. Overall, it is envisaged that WaterNet will work closely with GWP-SA in raising awareness. Raising awareness is every member's responsibility with the assistance of the Secretariat.

Due to the increased number of WaterNet member it was agreed at the 13th Steering Committee meeting that there was a need to develop a clear communication strategy between the Secretariat and representatives of member institutions.

Communication strategies and tools will be helpful to improve communication with members and with other networks, thus responding more effectively to needs and demands for capacity building in the water sector at the local level as well as providing knowledge and experience to strengthen the global initiative towards IWRM.

WaterNet participated in a Cap-Net survey to establish communication tools among capacity building networks. A report emanating from the survey was released in February 2006 by Cap-Net. WaterNet is in the process of establishing and improving its own communication strategy.

The 14th Steering Committee meeting noted these efforts towards formulating a pragmatic communication strategy for WaterNet. The recruitment to the Programme Officer has enabled the improvement in communication tools available to the network.

The WaterNet Secretariat revived the WaterNet newsletter (WaterNet News) with the first issue having been circulated in May 2006 (see **Annex 10**). The Secretariat envisages releasing 3 issues per year. It is hoped that this will improve communication between the Secretariat and WaterNet members.

The WaterNet website is currently hosted by UNESCO-IHE at the following link <http://www.waternetonline.org>. UNESCO-IHE has since provided the Secretariat with the ftp address to connect to the content and a user name and password to enable updates and changes to be made remotely. The contract value for hosting the site is 1 240 Euro per annum.

During the reporting period WaterNet Secretariat solicited for quotations from three web design companies based in Harare to assist in updating the website, these are:

1. Southern Africa Research and Documentation Centre
2. Adept Solutions
3. Savanna Media Center

After careful consideration Adept Solutions was found to be more experienced and offered best value for money. The Secretariat entered into a contract with Adept Solutions to update the website within 38 days. The terms and conditions included the following:

- To update the content on the current WaterNet website
- To conduct extensive consultation with WaterNet in order to gather and document the requirements and content of the web site.
- To develop, test, modify, set up and configure the WaterNet website. This will include designing the graphics and content management system. The final product will include the following features and benefits: (i) effective navigation (ii) news manager, which allows for instant updates of recent news items and automatic archiving of older news items (iii) statistics monitoring (iv) an online forum and (v) registration with popular internet search engines. These tasks will be completed prior to the deployment of the final product.
- To provide training and documentation to WaterNet staff members on the content management system and effective maintenance of the website.
- For the effective of the above, WaterNet will make available all content and any supplementary information for the website.

The Steering Committee at its 14th meeting approved the redesigning and updating of the WaterNet website. The Steering Committee emphasised that the new website should include links to member's websites, papers presented at the annual symposium and the need to minimise graphics so that it is easily accessible by members and other stakeholders particularly within the region. The new version will be distributed for comments to members and Steering Committee members in due course.

WaterNet participated at the 4th World Water Forum held in Mexico City, Mexico 16-22 March 2006. A special session organised by UNESCO-IHE on New Concepts and Tools for Education and Capacity Building to Achieve the Millennium Development Goals (MDG's) featured presentations on WaterNet and the Nile Basin Initiative as examples of knowledge networking (**see Annex 11**).

The Forum also provided a platform to meet with other capacity building network managers and collaborating partners.

WaterNet will be participating in a special session at the International Stockholm Water Week in August 2006 entitled "Partnership for capacity development on water supply, sanitation and hygiene in the context of IWRM in Africa" being organised by Cap-Net, Streams of Knowledge and IRC.

The workshop will present the first results of the partnership and will facilitate a discussion on strategies and priorities for effective capacity development on water supply, sanitation and hygiene (WASH) within the context of the IWRM.

The Best Young Researchers of the 6th WaterNet/WARFSA/GWP-SA Symposium namely: Mr William Moyce – Zimbabwe; Mr Jean-Marie Kileshye Onema – DRC; and Ms Phemo Kgomo – Botswana are also expected to be present at this event.

3.5.2 WaterNet/ WARFSA/ GWP-SA Symposium

The 7th WaterNet/WARFSA/GWP-SA Symposium with the theme “*Mainstreaming Integrated Water Resources Management in the Development Process*” is scheduled to take place at Capitol Hotel, Lilongwe, Malawi, 1-3 November 2006. Initially the Symposium was scheduled to be held by the lakeside town of Mangochi but the venue was changed because of the logistical difficulties. The decision to move the venue was agreed by the Local Organising Committee (LOC) and the collaborating partners (WaterNet/WARFSA/GWP-SA).

At the 14th Steering Committee meeting it was reported that the LOC was engaged in some fund raising activities for the 7th Symposium and had reached a good rapport with the Ministry of Irrigation and Water Development and would get the Minister to officially open the Symposium.

The announcement and call for abstracts was circulated during the reporting period (see **Annex 12**). Following the recommendation of the 6th AGM the sub-themes of the 7th and subsequent symposia had to be standardised along the six specialisation of the WaterNet Master degree programme in IWRM namely:

1. Hydrology
2. Water and Environment
3. Water and Land
4. Water and Society
5. Water Resources Management
6. Water for People

The idea was to ensure that the tracking and monitoring of the advances in sciences under each sub-theme could be enhanced by making comparison with previous symposia. The grouping of papers would also enable the development of policy briefs which will capture the best-practices and state-of-the art emanating from the symposia.

The 14th Steering Committee meeting identified possible session conveners from WaterNet who would also act as Scientific Reviewers for the production of the *Physics and Chemistry of the Earth*, an Elsevier international peer reviewed science journal. The following nominations were made:

Hydrology	Dr D Mazvimavi
Water and Environment	Dr F Kansiime
Water and Land	Dr W Nyabeze and Prof G Jewitt
Water and Society	Ms B Ngwenya and Dr D Merrey
Water Resources Management	Ms R Beukman and Prof van der Zaag
Water for People	Prof D Mashauri and Eng Z Hoko

4 DEVIATION FROM PLANNED ACTIVITIES

During the reporting period there was one major deviation from the planned activities namely, that PON was not going to be able to host the Water for People Specialisation in 2006 due to a critical staffing problem (see section 3.2.2). The most probable host institution would be one of the core-host institutions i.e. University of Dar es Salaam and University of Zimbabwe.

The WaterNet Secretariat has been hosted by the University of Zimbabwe at the Department of Civil Engineering premises since the establishment of the network. The premises are excellent with ample office space and ideal for the Secretariat to interact and support staff and students in the Master Degree Programme in IWRM and other WaterNet activities.

During the reporting period the Secretariat experienced a number of inconveniences mainly linked to the economic melt-down in Zimbabwe thus affecting the operations of the Secretariat.

The electricity crisis in Zimbabwe during the period resulted in power cuts being experienced by the WaterNet Secretariat and the University at large (on average for four hours each day during business hours). The Zimbabwe Power Company indicated that the situation would get worse.

This power cuts essentially closed down Secretariat functions as power is required for computers (thus email and internet), telephones and fax. The Secretariat Staff had to put up with the cold winter season without heating causing severe discomfort to the staff members. There is no back-up power supply currently available.

The Secretariat has also been experiencing problems with the internet and mail service provision effectively isolating the heart of the network from members. Currently, these services are provided free by the University of Zimbabwe. However, one or both of the systems can be unavailable for up to a week at a time because of problems with the server probably as a result of power surges.

The two problems have had a serious impact on the Secretariat's efficiency. Accordingly, an independent solution for email and internet provision and an emergency power supply was conceived during the reporting period.

Firstly, the Secretariat proposed to purchase a diesel generator to provide a back-up power supply for the Timber Research Building where it is housed.

Secondly, the Secretariat proposed that computers be linked through an independent wireless small office network. This will require a network server and a communication server. The latter will handle email and internet traffic, as well as hosting the WaterNet web page. It shall be connected to a commercial service provider by a UHF uplink – currently the most reliable link available in Zimbabwe. The new email system shall use the waternetonline.org domain, which will be hosted by the commercial service provider.

The suggested solution will guarantee that the Secretariat can maintain telephone, facsimile and email communications continuously, and run the office normally during power blackouts.

The Secretariat has solicited for quotations from various service providers for the two interventions and the breakdown of costs for equipment purchases and installation is shown in the **Table 4.1** below.

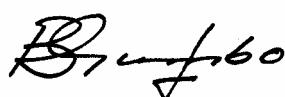
Table 4.1 Cost of equipment and installation for WaterNet Secretariat independent power and internet facilities

Item	Cost in US\$ to the nearest '100'
Mail/ISP system configuration and commissioning	1 500.00
Mail/ISP server (for linux)	900.00
Network server (for windows)	1 100.00
Windows server 2003	800.00
Wireless local area network (cards, hub and access point)	1 300.00
Generator (inclusive of freight and import duty)	15 000.00
Generator installation and housing	1 200.00
Power surge UPS	1 000.00
Total	22 800.00

It also envisaged that there will be some small ongoing costs for internet access, the UHF license and diesel for the generator. These are estimated to be around US\$ 300.00 per month.

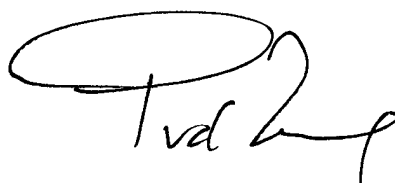
The Steering Committee approved the request by the Secretariat and supported the proposed solution and the expenditure as detailed above. The capital expenditure and running costs would be placed under the Management Fund of the WaterNet budget. The Fund will not be overspent due to savings made by the delayed appointment of the Network Professional Training Officer.

Harare, December 2006



Bekithemba Gumbo, PhD, MSc
WaterNet Manager

Delft, January 2007



Pieter van der Zaag, PhD, MSc
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