African water: supporting African involvement in the EU framework programme

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Water researchers in developing countries have yet to take full advantage of the funding and collaborative research opportunities presented by the EU Framework Programme. There are a variety of reasons for this, such as insufficient information and a lack of previous experience. The African Water initiative aims to increase the involvement of African water researchers through a range of activities including communication and dissemination, capacity building and development, and complementary initiatives. The project has demonstrated that there is a demand for such sector-specific support activities. However, African Water is a small component of a much larger process of partnership between the developed and the less-developed countries of the world, involving many different European and African organisations working across political, institutional and technical domains, and complementing the wide range of actions already being undertaken.

Introduction

The Commission for Africa report (2005) recommends a doubling of arable land under irrigation by 2015, and the World Bank water resources strategy (2004) calls for increased investment in water infrastructure in Africa. The NEPAD (New Partnership for Africa’s Development) environment initiative (2003) states that addressing environmental issues is necessary for achieving goals of sustainable growth and development and a lasting solution to the eradication of poverty. However, it is recognised at the highest level that the water-related Millennium Development Goals (MDGs; water supply, sanitation and resource management) will not be achieved unless new and improved approaches, methods, technologies and knowledge management systems are developed. Therefore, as part of its European Research Area (ERA) concept and its commitment to delivery of the MDGs, the EU started opening up the thematic research elements of its Framework Programme (FP) to partners from developing countries. However, participation by African partners, has been less that hoped. A number of factors are thought to have contributed to this, including:

- Lack of awareness of FP opportunities and access to information (e.g. Calls) among African researchers;
- Lack of knowledge/experience of the administrative procedures for participation in the FP;
- Lack of awareness by European water researchers of African research capacity;
- The disinclination of European consortia to involve African partners;
- The weak position of African partners with respect to the consortium building process;
- The disadvantages for African partners of participating “remotely” in the FP;
- Off-putting experiences when tendering for projects under other EC programmes (e.g. DG Development).

The African Water Specific Support Action (SSA) aims to increase the capacity of African water researchers to contribute to achieving the water-related MDGs. With relatively modest funding of €230,000 over 2.5 years, the project endeavours to increase the involvement of African water researchers, specifically in FP7, and generally in their partnership with European researchers in identifying and tackling the major challenges facing Africa. In addition, African Water will hope to catalyse the successful participation of African water researchers in other collaborative research initiatives i.e. research funded by EU Member States, non-EU donors, international agencies, charitable foundations, etc. The scope of African Water includes all issues
related to water science, research, technology and management in Africa. The increased involvement of the African water research community will mean that outputs from the EU FP will become more applicable to, and be seen to have a real impact upon, the water management challenges facing Africa. It will also be recognised by, and have an influential impact upon, both African and EU policymakers in international development cooperation i.e. development and projection of the ERA; meeting the MDGs; adaptation and mitigation of climate change; and foreign policy. African Water supports the delivery of water-specific commitments made to Africa by the EU at the World Summit on Sustainable Development (Johannesburg, 2002) and reiterated at the UN 12th Commission on Sustainable Development (New York, 2004).

**Political context and research priorities**
The African Ministerial Council on Science and Technology (AMCOST) provides the overall governance structure for setting continental priorities and policies pertaining to the development and application of science and technology for Africa’s socio-economic transformation. A ministerial conference in November 2003, organised by NEPAD, with the support of the South African Department of Science and Technology and UNESCO (United Nations Education, Scientific and Cultural Organisation), stressed the urgency of building the continent’s capacities to harness, apply and develop science and technology in order to eradicate poverty, fight diseases, stem environmental degradation, and improve economic competitiveness. The main outcome from the conference of a ‘Consolidated Science and Technology Plan of Action’ containing twelve flagship programme areas and specific policy issues for the continent was adopted by AMCOST. The Plan articulates Africa’s common objectives and commitment to collective actions to develop and use science and technology for the socio-economic transformation of the continent and its integration into the world economy. The identified water-related flagship programmes in the Plan focus on water quality, sanitation and water resources management, with emphasis on promoting increased use and production of scientific knowledge and technological innovations. Research priorities include:

- Scientific assessment of Africa’s water resources and systems, their improved conservation and utilisation;
- Research/technologies to monitor and reduce the impact of water-related disasters (floods and droughts);
- Knowledge/technologies to improve the quality and quantity of water available to rural/urban households;
- Exchange of scientific information on the causes and extent of drought and desertification in Africa.

Hence, African Water complements the wide range of actions such as this already being undertaken by NEPAD (where issues associated with the development, supply and management of water are high on the agenda) and the African Union (e.g. network of Centres of Excellence for Water Science and Technology), and the EU (e.g. EU Member State research coordination efforts). African leaders have clearly identified water scarcity and related insecurity as a source of the continent’s underdevelopment and increasing economic decline, and recognised that the challenge for sustained economic growth and poverty alleviation is closely associated with sustainable use of natural resources and better management of the environment. Predictions of the likely impacts of climate change across Africa emphasise the need for a collaborative approach to water resource management across regions, and the continent. The regular opportunities for communication and face-to-face interaction with counterparts from other countries provided through research projects under the FP, promotes this cooperation between water researchers and managers (end-users), and the free exchange of data, information, expertise and ideas.

**Communications and dissemination tools**
African Water has made use of a variety of appropriate and efficient tools to communicate information about the project and disseminate relevant material. The most high-profile tool has been the project website www.africanwater.net which has provided a focal point for reporting project activities and establishing a communication-enabling environment. The website presents information about the project, about EC funding mechanisms for research relevant to the water sector in Africa, and about water related research in Africa with an emphasis on coordinating activities. In designing the website, attention was paid to the available resources for development, implementation and maintenance, as well as the interests and resources of the target audience. Initially, it was hoped that the site would also provide access to a community environment for sharing information, intended for groups active in coordinating African research but lacking suitable
infrastructure and tools, but this feature was not fully implemented due to lack of demand.

Other tools include publicity brochures and posters, newsletters, and working through existing networks (e.g. past and present students from Africa at Loughborough University). They have all been useful, though some (e.g. the newsletter) have probably been more effective than others (e.g. posters) in reaching as wide an audience as possible. The quarterly African Water newsletter, which can be subscribed to via the website, has been well-received; despite the immense number of existing newsletters, this still seems to be an attractive medium for quite narrowly targeted issues. Also available is European RTD Insight, a monthly publication produced by UKRO on behalf of the British Council. Insight is available without charge, and provides a succinct and accessible overview of developments in European and international research programmes and policy. It also includes sections on education, training and culture, external collaboration, events and awards, new publications and on-line resources, and a glossary of EU acronyms and terms.

Capacity building and development

African Water organised three regional training workshops in 2007 to inform interested researchers of the FP and other funding opportunities, and the administrative procedures for participation in the FP, in order to improve the relatively weak position of African partners with respect to the consortium building process and overcome the disadvantages of participating "remotely" in the FP. The training workshops in Southern Africa (South Africa), West Africa (Ghana) and East Africa (Kenya) were well attended providing an indication of the considerable interest in the collaborative research opportunities presented by FP7.

African Water also sponsored three African delegates to attend the 2007 UKRO conference in London, UK. The annual conference is targeted primarily at European research and liaison officers from universities and research institutes i.e. those responsible for promoting and supporting their institution's European activity. Nineteen African Water subscribers applied for sponsorship to attend the conference. The successful applicants, from South Africa, Mauritius and Ethiopia, were selected based on how their own organisations would benefit from their attendance at the conference, and also on how they would use their networks of contacts to disseminate the information gained to others in their region. African Water was publicised at the conference, to raise awareness amongst UK research administrators of African research capacity. As well as the networking opportunities presented, there was time for discussions with the three African delegates regarding how their specific research challenges mapped onto European research programmes.

Complementary initiatives

There are a range of complementary initiatives relevant to African Water. These are initiatives which either focus specifically on African regions or include them within their remit, which reach potential and active African researchers, or which are relevant to the water and sanitation sector. Many are well-established, reliable, sector-specific projects, that have appropriate mechanisms through which they can usefully disseminate information about African Water and the funding opportunities it seeks to promote, including:

- Water/sanitation research programmes: FRIEND (Flow Regimes from International Experimental and Network Data) [ne-friend.bafg.de]; AWIRU (African Water Issues Research Unit) [www.awiru.co.za]
- relevant sector organisations involved in research: AMREF [www.amref.org]; National Water Resources Institute (Nigeria) [www.oieau.fr/anglais/international/Nigeria.htm]
- water/sanitation-related information providers: id21 [www.id21.org/id21-media/index.html]; National Academies Water Information Center [water.nationalacademies.org]
- European Research Area Networks (ERA-Nets): SPLASH, the EUWI ERA-net [splash-era.net]
- sector events: WEDC International Conference [weds.Lboro.ac.uk/conferences]

Also relevant are Africa-based organisations that have had involvement in DFID-funded research projects between 2000 to 2007 and in EU-INCO research projects between 2000 to 2006. These represent countries including Egypt, Ethiopia, Ghana, Kenya, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. As they have experience of research collaboration with European agencies, it is worthwhile to disseminate information about further research funding opportunities through the FP. The development
of synergies with these networks and initiatives will support African Water’s objective of increasing the involvement of Africans in European-funded water research, by disseminating information about the project, its concepts and outputs, and the opportunities offered under FP7, both during and beyond the lifetime of the project. There are also significant cost saving and communication efficiencies to be achieved in this way.

The way forward
African Water has been largely successful in assisting Africans to define and communicate their research priorities to the EC and into the FP, and raising awareness, in both Africa and Europe, of the opportunities for participation in research partnerships, thereby helping to deliver major EU commitments to strengthen African water research capacity. The intensive training activities have been focused on those Africans who are most likely to pass on the knowledge they acquire to other water researchers, and to researchers working in many other fields as well. The increased involvement of African water researchers specifically in FP7, and generally in their partnership with European water researchers, can help them to identify and tackle the major challenges facing the continent, which will in turn increase their capacity to contribute to achieving the water-related MDGs through the development of new approaches, methods and technologies and improved knowledge management systems. It is hoped there will also be a catalytic effect of increasing the successful participation of African water researchers in other collaborative initiatives outside the EU FP.

Although the effectiveness of African Water activities has yet to be fully evaluated, the project has identified a demand amongst African researchers for increased information about, interaction with and participation in, the FP, and it is important that the process of supporting African involvement continues in 2008 and beyond. While countries like South Africa have the motivation and capacity to support, from their own resources, action to increase national access to European research programmes, this is not the case for many other countries. It is necessary for the EU to promote regional initiatives, comparable to the existing FP contact points/information nodes that exist across the EU, to deliver this type of service. The increased involvement of the African research community will mean that outputs from the EU FP will become more applicable to, and be seen to have a real impact upon, the water supply, sanitation and resource management challenges facing Africa. It will also be recognised by, and have an influential impact upon, both African and EU policymakers in international development cooperation.

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World Bank, Washington DC.

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Contact details
Helen Houghton-Carr
Centre for Ecology and Hydrology,
MacLean Building, Wallingford,
Oxon OX10 8BB, UK
Tel: 01491-692332
Fax: 01491-692238
Email: hahc@ceh.ac.uk
http://www.ceh.ac.uk

Amanda Crowfoot
UK Research Office,
Rue de la Loi 83, BP10, B-1040, Brussels,
Belgium
Tel: +32-2-2869050
Fax: +32-2-2304803
Email: amanda.crowfoot@bbsrc.ac.uk
http://www.ukro.ac.uk
Julie Fisher  
Water, Engineering and Development Centre,  
Loughborough University, Leics LE11 3TU UK  
Tel: 01509-222393/885  
Fax: 01509-211079  
Email: J.Fisher1@Lboro.ac.uk  
http://www.wedc.Lboro.ac.uk

Eiman Karar  
Water Research Commission,  
Private Bag X03,  
Gezina 0031, Pretoria, South Africa  
Tel: +27-12-3309029  
Fax: +27-12-3312565  
Email: eimank@wrc.org.za  
http://www.wrc.org.za

Kevin Pietersen  
Water Research Commission,  
Private Bag X03,  
Gezina 0031, Pretoria, South Africa  
Tel: +27-12-3309029  
Fax: +27-12-3312565  
Email: kevinp@wrc.org.za  
http://www.wrc.org.za

Neil Runnalls  
Centre for Ecology and Hydrology,  
MacLean Building,  
Wallingford, Oxon OX10 8BB, UK  
Tel: 01491-692332  
Fax: 01491-692238  
Email: nrr@ceh.ac.uk  
http://www.ceh.ac.uk

Ian Smout  
Water, Engineering and Development Centre,  
Loughborough University, Leics LE11 3TU UK  
Tel: 01509-222542/885  
Fax: 01509-211079  
Email: i.k.smout@Lboro.ac.uk  
http://wedc.Lboro.ac.uk

Thomas Zipper  
Hydrophil, Lerchenfeldergürtel 43 Top 6.3, 1160 Vienna, Austria  
Tel: +43-1494-6459  
Fax: +43-1494-6940  
Email: thomas.zipper@hydrophil.at  
http://www.hydrophil.at