

Summary of the proceedings of the AquaKnow e-conference on knowledge management for technical cooperation in the water sector in developing countries

The identification baseline for the Aquaknow.net content management platform

Andrea Leone, Cesar Carmona, Celine Dondeynaz



EUR 24606 EN





The mission of the JRC-IES is to provide scientific-technical support to the European Union's policies for the protection and sustainable development of the European and global environment.

European Commission Joint Research Centre Institute for Environment and Sustainability

Contact information

Cesar Carmona – Moreno and Andrea Leone Address: TP 440 via Fermi 2749, 21027 ISPRA, Italy E-mail: cesar.carmona-morena@jrc.ec.europa.eu Tel.: 0039 0332 78 9654 Fax: 00 39 0332 78 9960

http://ies.jrc.ec.europa.eu/ http://www.jrc.ec.europa.eu/

Legal Notice

Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use which might be made of this publication.

Europe Direct is a service to help you find answers to your questions about the European Union

Freephone number (*): 00 800 6 7 8 9 10 11

(*) Certain mobile telephone operators do not allow access to 00 800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server http://europa.eu/

JRC 60860 ISBN-13: 978-92-79-18411-6 ISSN 1018-5593 doi: 10.2788/44103 Luxembourg: Publications Office of the European Union

© European Union, 2010

Reproduction is authorised provided the source is acknowledged

Printed in Italy

GENERAL BACKGROUND OF THE WATER KNOWLEDGE MANAGEMENT PLATFORM

Context

Information management and capacity building are increasingly recognized as important features in effective and efficient provision of aid in the water sector. Worldwide, the number of web sites and initiative is increasing very quickly. These sites offer complementary but also overlapping services. Historically, collaboration and funding of these platforms has been haphazard. Advances in information technology (in particular for collaborative platforms with the WEB2.0) and rapid changes in the water sector bring new opportunities for improving and enhancing the role of water knowledge management in the sector. The transfer of knowledge to developing countries and the production of knowledge inside developing countries belong to many processes that have raised the issue of whether greater collaboration in water knowledge management would be beneficial and worth promoting.

Water knowledge management platform group

The Water knowledge management platform (WKMP) group has been created in this context. This informal group was composed of representatives of the major funders of technical cooperation in water knowledge management, the main water knowledge management platforms, in the EU and elsewhere, as well as universities and learning centres in the water sector. Its objective was to promote collaboration for an effective water knowledge management defining a list of concrete activities which would be jointly carried out and a road map toward a stronger coordination among all stakeholders.

A first working group meeting was held on 28 January 2008 to promote collaboration for an effective water knowledge management. It confirmed the will to foster efforts to develop a road map towards stronger cooperation which would include two initiatives: i) undertake concrete actions on joint collaboration on capacity building and water knowledge management and ii) develop a longer term consensus on a common approach to supporting knowledge management within the water sector.

E-conference

To move forward in the discussion, a three weeks electronic conference, entitled "Water knowledge management", was planned as from 19th of April 2008. The general principles of an e-conference are detailed in the annexe 2 (instruction to participants). Each one of the themes addressed in the e-conference will refer to both initiatives mentioned in the former paragraph.

Themes

Three themes were addressed during the conference, one per week. The themes are the following:

- Generation and dissemination of knowledge in developing countries (week 1)

5 African regional centres (as it will be shown in the rest of this document), specialised in the water sector (universities, research centres) are under identification by the NEPAD, supported by the IRD. The possibility of supporting these centres is conceivable as it would give them a more weight, legitimacy and sustainability.

In the year 2000, African countries and international Community adopted the Millennium Development Goals at the United Nation Millennium Summit. African leaders have identified water scarcity and related insecurity as

one of the causes of the continent's increasing economic decline. In 2001, the African Union set up the New Partnership for Africa's Development (NEPAD) as specific African initiative to address the Millennium Development Goals both at local and continental levels.

One of the key limitations to a harmonious development and management of water resources in Africa is the lack of human and institutional capacity to assimilate modern advances in science and technology which are necessary to deal with the complex interactions between the hydrological cycle and social needs, while preserving environment. Developing science, technology and capacity will generate knowledge, which, if well managed, will draw up the basis for governance of water resources and will address most of the urgent needs regarding water. Since knowledge resides within people, there is a need to build capacity and create expertise.

In 2003, the first NEPAD Ministerial Conference on Science and Technology decided to launch one of the main flagship programmes of NEPAD aimed at establishing networks of centres of excellence dedicated to research, development and capacity building. Five African regional centres, specialised in the water sector (universities and research centres) are under identification by the NEPAD Science and Technology Office, supported by the South African Water Research Commission (WRC) and the French Institute for Research and Development (IRD).

At a regional scale, it is planned to select these centres, possibly one per African region. The centres will have regional vocation for research, training and networking of water institutions and stakeholders. They will promote comprehensive approach of water regional problems, organize data collection and dissemination, host regional training programmes and coordinate specific events (workshops, conferences).

The centres will be identified among existing institutions with effective technical, financial and administration facilities as well as scientific expertise and capacity to train researchers, professionals, etc. The centres will develop solid partnerships with the Northern countries as well as with the African community.

The programme focuses on supporting a hub of centres rather than individual institutions disconnected one from the others. The centres should develop effective systems for the shared collection, generation and dissemination of knowledge. At a continental scale, these centres will be coordinated by the NEPAD Science and Technology Office.

- Joint actions for water knowledge management (week 2)

Concrete joint actions/events would aim at sharing and harmonising our positions towards beneficiaries knowledge management and capacity building. These actions/events could also be the first step to refine a common Water Knowledge Management Strategy.

In 1998 the EC published very comprehensive guidelines "Towards sustainable water resources management". Although they have served a very useful purpose there is a recognition that they need to be updated to take account of developments in the water sector since 1998. An analysis of the use and continued demand for the guidelines (December 2007) indicated that they were used: by donors to ensure the development of better proposals; by the public sector in developing countries as a check list on the development of national policies and strategies; by civil society when proposing new initiatives; by the private sector as a training and guidance tools and for educational and training purposes. The analysis also pointed out that the guidelines needed to be more interactive perhaps by making use of web based tools and/or by

closer connection to communities of practice. The content itself needs to be updated by taking into consideration the emergence of new financial modalities and the implications of the Paris Declaration and should strengthen aspects such as water governance, climate change, energy as well as other areas. The training value of the guidelines has also been recognized and in this respect some updating and reformatting of the content would also be needed. If the guidelines were to serve as a tool for all EU member state support to water sector policies then they would need to be checked for compatibility with policies of member states.

The updating of the EC guidelines and transfer of knowledge to developing countries is one of many processes that have raised the issue of whether greater collaboration in Water Knowledge Management would be beneficial and worth promoting. The updating of the EC guidelines as well as capacity building and knowledge transfer is a concrete opportunity to test the will to work jointly on a final product. The concept of the centers of excellence discussed in week 1 is one of several other possible joint actions that could be taken and the discussion in week 2 gives an opportunity to take this concept further.

- New challenges of information management in the internet age (week 3)

Each organisation working in the Water sector has its own knowledge base, its own strategy for knowledge management toward capacity building. A common sector approach to knowledge management toward capacity building would reduce gaps and overlapping. On the other hand existing information is not always easily accessible by sector stakeholders and beneficiaries. Traditional search engines – as Google – do not give always direct access to the relevant information and in any case do not structure it.

There is a clear message from WSIS (World Summit on Information Society):

ICTs (Information and Communication Technologies) cut horizontally across all our efforts to achieve the MDGs but can also create a global democratic village (the promised but elusive e-Agora).

The contribution of ICTs in MDGs is critical and highlighted by various institutions. For example, facilitation of knowledge exchange and networking among policy makers, practitioners and advocacy groups and use of networks for information sharing are especially mentioned in relation to the ways ICTs can contribute to MDG Goal 7.

a. The Basics of Knowledge Management (KM)

It is not the purpose of this e-conference to analyze this "buzzword" of modern times, but it is useful to remind of a few basic concepts:

- "KM is not only the capturing, transferring and leveraging what everybody in an organization knows, but also what everybody thinks and believes."
- It is useful also to remember that knowledge is explicit or tacit and is more than information which in turn is more than just a collection of data.

The issue for the water sector:

Each organisation working in the water sector has its own knowledge base, and its own strategy for knowledge management which conforms to its own objectives. This has led to a – welcome - abundance of information which is available today through the internet and numerous initiatives and platforms that bring together practitioners and researchers of the field and help disseminate experiences. A common sector

approach to knowledge management especially with respect to capacity building and information sharing, would reduce gaps and overlapping and strengthen our efforts. However, there is a lack of a clear consensus on knowledge management strategy for the sector as a whole.

Such a strategy would require a clear mandate, a consensus on the goals and the means to achieve them and naturally a needs analysis and an intelligent mapping of existing resources and initiatives to facilitate the development of a common action plan.

The question should not only revolve around the organizational constraints but also around the "political" aspects of building a sustainable KM strategy for the sector.

In this day and age of the internet, possibly one route to think about would be to learn from the "open source" approach (open & collaborative) which is democratic but also inclusive, eschewing the outdated battles over "ownership".

This approach could possibly be applied to the issue of updating the EC guidelines but also reaching a common agreement on improving our existing knowledge management platforms.

Chairman

All along the three weeks that the conference lasted, it was lead by Mr Jay Bhagwan, Director of the Water Use and Waste Management in the Water Research Commission in South Africa.

Summary proceedings of the first e-conference on water knowledge management

Overview

Context

These aims sit within a context where information management and capacity building are increasingly recognized as crucial features in efficient provision of water services. Knowledge stimulates national and regional policies, enforces positive impact of interventions and fosters sector performances. Advances in information technology and rapid changes in the water sector bring new opportunities for improving and enhancing the role of water knowledge management in this sector. The production and dissemination of knowledge inside developing countries become increasingly recognized as crucial elements of global cooperation in the water sector.

Purpose

The purpose of this E-conference on water knowledge management was to stimulate the debate on how South-South and South-North joint actions on water knowledge management can improve sector performance. The intention is that this opening debate will help to shape a number of initiatives that are already planned as well as inspire new ones.

Structure

The e-conference was structured around 3 themes Week 1: Generation and dissemination of knowledge in developing countries Week 2: Joint actions for the water knowledge management Week 3: New challenges of information management for the water sector

Outcome and way forward

Some 145 participants from 67 organisations (annex 1) registered to the e-conference representing a wide variety of stakeholders including: Government bodies responsible for the water sector; donors in the water sector; water knowledge management platforms; UN organisations; Research institutions; Capacity building and training organizations; Civil Society organizations; water sector practioners and representatives of the private sector. Around 80 exchanges took place during the 3 weeks. The outcomes can be summarized in 5 points:

- 1. Solutions such as centres of excellence anchored in the regions (Africa) are a good way forward
- 2. There is a strong consensus that jointly supported training and seminars are potentially one of the most practical and useful initiatives that could be taken in the sector
- 3. Information access to information and the conversion to knowledge are all challenges that joint actions can help overcome.

- There is a consensus on the need for common approaches to knowledge management but skepticism about top down or artificially created solutions – user shaped solutions are more chaotic but more likely to work
- 5. There is a desire amongst a core group of participants for deepening the exchange of views.

Week 1: Generation and dissemination of knowledge in developing countries

What other similar initiatives and activities are relevant?

The participants noted several relevant initiatives in Africa like: Interstate schools; 2iE, International Institute of Water and Environment Engineering; AIST, African Institutes for Science and Technology; UCLGA United Cities Local Governments of Africa or Nile Basin Capacity Building Network: SCARDA, Strengthening Capacity for Agricultural Research and Development. Or in Asia/Pacific: CIIFEN international centre for research on el Niño; Xi'an Jiaotong- Liverpool University ; Asia Pacificwater forum or existing centres/networks based in Europe like Tyndall Centre on climate change, Uk; Joint Research Centre, EC; IRC, WaterNet, NL.

Background information on these initiatives was given together with links to websites.

A discussion followed on the many years of experience of some of the centres of excellence set up in French speaking Africa. The issue of financial sustainability and the need for centres to adapt to changing needs was deeply discussed.

What are the expectations on partnership?

JRC noted that it had been involved in providing specialist information technology related support to centres of excellence. IRC noted the importance of innovation in knowledge generation, dissemination and capacity building. UNESO_IHE see its focuses on building educational partnerships with other universities and supporting the process of network development (e.g. WaterNet). Other participants noted the importance of South-South partnerships and the barriers of communication and the need for more funding for regional workshops to enhance exchanges within Africa. A new idea of instituting a Scientific Journal based in Africa was raised. A new idea of supporting the creation of a sustainable water resources management university in China was raised.

What is the role of centres in excellence in relation to AU, NEPAD, AMCOW & others ?

UNESCO_IHE notes that the AWPF knowledge hubs process which up to now has focused on Asia could be a relevant model. The IAST initiative is closely linked to continental initiatives with Africa and

also has parallel in Asia (through the Asian Institutes of Technology). A number of participants mentioned that for the centres of excellence the key issues were: i) communication facilities, ii) funding and, iii) networking. Independence from political institutions whilst also ensuring that the work of the centres was political relevant was noted as an important balance that needed to be struck. Another comment made was that centres of excellence could in some circumstances lead to more sustainable and replicable capacity building results as they are not project based like much technical assistance projects TA. Centres of excellence could be the reference institutions in dissemination and supporting water knowledge at regional and continental level.

What other aspects are relevant?

The link between independent advice and political relevancy was taken up. There is lots of experience of using a variety of tools for generating and dissemination of knowledge e.g. thematic working groups; workshops; grants for south-south cooperation; participation in international conferences; common regional annual meetings. Experience of these tools was available and could be built on.

Week 2: Joint actions for the water knowledge management

Is there a consensus on the need for joint action?

The week 2 discussion reflected a strong consensus that joint training and seminars were potentially one of the most practical and useful initiatives that could be taken in the sector. Participants noted several examples of joint training that were already yielding good result e.g. the train4dev initiative. Several commentators expressed a need for more joint action on training. It was noted that coordination of training and capacity building was still far from common practice - and there was therefore much scope for improvement in this area.

Centres of excellence were seen as one way forward for establishing training that was learner centred but at the same time a caution was sounded, reflecting some of the comments during week 1; the centres would need to evolve naturally and respond to the market dynamic of supply and demand rather than be artificially created.

What factors influence the contribution of joint action on WKM to capacity building?

A debate on the meaning of knowledge management of the water sector lead to useful distinctions being made between: knowledge and information. Further distinction was drawn between knowledge at the individual level, the institutional level and the sector level. These insights are highly relevant for capacity building, awareness raising and policy adjustments which is perhaps the greatest challenge facing the water sector - perhaps even more than funding.

Capacity building at the individual level has not always spilled over to the institutional and sector level. A comment from South Africa noted the difficulty of scaling up knowledge. People could be trained at the individual level but to have an institutional and sector impact new ingredients were necessary most fundamentally shifts in attitude and close coordination by knowledge generators, knowledge disseminators and knowledge users. A number of participants noted the importance of bridging the gaps between education, research and practical use in the field. Each area reflects different parts of the knowledge chain from generation, to dissemination, to use and feedback. Some organizations such as IRC which have decades of experience in building capacity noted the links between information management, knowledge management and knowledge sharing and how these lead to learning and improved sector performance. Small incremental steps were advocated.

Several views were expressed about the importance of cultural and political factors in knowledge management and sharing. The existence of knowledge friendly organizations is essential to sector development. It is not only the availability of knowledge and information but also the attitude towards information and the power it provides, that is crucial. Not all contexts, especially in the developing countries are favourable. One observer, later echoed by others, noted the importance of influencing the demand side of knowledge - the implication being that the major bottlenecks might not be on the

availability of or even access to knowledge. The relevance of politically relevant organizations such as NEPAD in providing a favourable context for knowledge sharing was mentioned.

What is the contribution of open source thinking on joint actions?

The contribution of open source thinking and use of advanced IT approaches in knowledge sharing was discussed and mixed views were recorded. For some, the open source approach holds great promise, others note that although beneficial it may leave many in the developing countries, who have inadequate internet connection, behind.

Week 3: New challenges of information management for the water sector

What are the common principles of management of information for the water sector?

As reinforced in earlier weeks the distinction between information and knowledge was highlighted. The balance between the need for global information and local relevance/realities was also raised as well as the possible hindrance of language and internet access especially in African countries. Organisations in the water sector have to be more willing to share information in an open and freely accessible manner. A specific challenge is how to manage information whilst also adopting democratic, transparent, and inclusive approaches (like Wikipedia).

Are common tools needed for the sector?

The conference concluded that no single tool exists and it was not useful to develop "yet another web site". Using a combination of freely available, easy to use Web 2.0–like tools should be considered a "best practice" and should be preferred over development from scratch. A "clever search engine" well adapted to the sector was called for. A meta-website with semi-dynamic content was proposed where the selected websites can be enhanced by the community and/or as a function of the assessment of the website. Peer/expert-review is needed in order to ensure centralised content consistency and quality but without reducing the democracy of access.

How can water knowledge management be improved?

Web2.0 technologies and free/open-source, user-driven tools readily available in the web, (e.g. through Google search & groups, facebook, digg, wikis, YouTube, various "mash-ups" etc) could evolve into one coherent "platform", making them inter-linked and referring to each other in a user-friendly way. This may offer solutions in terms of exploiting social collaborative and sharing options, improving accessibility of knowledge. This concept can be coupled with the right incentives for users to become providers themselves and share knowledge which can also address the challenge of resources to maintenance a site.

What are the obstacles to improved water knowledge management?

No single factor emerged but a mixture of many of the mentioned factors which together represent obstacles in differing degree. Lack of time on the part of people to codify and share their specific knowledge, combined with the lack of clear ways to do this is probably the most common practical constraint. Donor initiatives are often part of short-lived projects whereas long-term strategies are needed.

Does Water knowledge management need to be streamlined - if so how?

The need is recognized but there is a health level of skepticism about how it can be achieved. There are financial, institutionally related feasibility constraints. Only a "think out of the box" approach is likely to create a breakthrough. Creating yet another formal partnership with specific rules and procedures could limit the effort and an informal approach would seem more promising. Instead a strong desire was expressed to learn more from the inherently democratic aspects of knowledge exchange in the internet itself and opt for the development of non-branded, fully independent platform/tools.

Outcome and way forward

Outcome

- Solutions such as centres of excellence are a good way forward they need to achieve sustainability either by long term support to their core mandate and/or by being able to evolve naturally and respond to the market dynamic of supply and demand.
- 2. The centers will function well if they retain independence from political institutions whilst also ensuring that their work is politically relevant.
- 3. There is a strong consensus that jointly supported training and seminars are potentially one of the most practical and useful initiatives that could be taken in the sector
- 4. Shifts in attitude and close coordination by knowledge generators, knowledge disseminators and knowledge users are key to improving water knowledge management.
- 5. Cultural and political factors in knowledge management and sharing need attention
- 6. The whole knowledge chain from generation, to dissemination, to use and feedback needs to be considered.
- 7. Information access to information and the conversion to knowledge are all challenges that joint actions can help overcome.
- 8. There are many tools but no super tool a creative combination of existing tools is best
- There is a consensus on the need for common approaches to knowledge management but skepticism about top down or artificially created solutions – user shaped solutions are more chaotic but more likely to work
- 10. There is a desire amongst a core group of participants for deepening the exchange of views perhaps using new tools.

Way forward

The way forward will emerge from further discussion amongst the participants and an initiative will be made to collect reflections on this matter. So far some of the views expressed include:

1) Rotating the leadership of future events

Further e-participation is done under through rotation (UNDP for example) could host the next "event" and experiment with format/ technology. There is a body participants who are keen to take the process forward. Then the idea is that the rotation will continue - perhaps passing to an institute in the developing countries (perhaps one of the centres of excellence which might be ready say in early or mid 2009 to host the third round . Each round could be radically different in format and might widen the group of participants or might tighten it.

2) Using sub-groups to focusing on particular themes

i) Discuss and let participants propose practical ways to move forward with EC guidelines updating (e.g. practical tools, organizational aspects, who to involve, how is it administered, and possibly scope and expected outcomes). ii)Discuss the WKM platform to be developed in more detail: building on suggestions made so far, and tapping into everybody's knowledge.

3) Use of survey-questionnaire technique to obtain and quantify thoughts on different aspects.

4) Provide the participants with access to new technology to see if this leads to spontaneous follow up (e.g. web2.0 functionalities with uploading capacity)

ANNEXE 1: LIST OF ORGANISATION PARTICIPATING TO THE E-CONFERENCE

	Organisation	Country	Туре
1	Network for Water and Sanitation	Kenya	Private Sector
2	Ministry of Irrigation and Water Development	Kenya	African Government
3	Water Resource Management Authority	Kenya	African Government
4	Ministry of Agriculture and Rural Development	Vietnam	Asian Government
5	UNCEF	UN	United Nations Agency
6	DfiD	UK	Governmental Development Cooperation Agency
7	Ministry of Water Resources	Ethiopia	African Government
8	Oxfam intermon	Ethiopia	NGO
9	DANIDA	Denmark	Governmental Development Cooperation Agency
10	Ministry Of Water and Environment	Uganda	African Government
11	Nile Basin Intiative	Egypt	Development project
12	Ministry of Irrigation and Water Development	Malawi	African Government
13	Water Aid	Uganda	NGO
14	Ministry of International Development	Malawi	African Government
15	CIDA Malawi	Canada	Governmental Development Cooperation Agency
16	African Development Bank	Tunisia	Governmental Development Bank
17	University of Zambia	Zambia	University/Research
18	Sida (Sweden)	Mozambique	Governmental Development Cooperation Agency
19	SADC Water - Southern African Development Community	Zambia	Governmental Development Cooperation Agency
20	Ministry of Water and Health	Ghana	African Government
21	Ministry of Water Resources of Bangladesh	Bangladesh	Asian Government
22	North South University	Bangladesh	University/Research
23	Global Water Partnership	Uganda	NGO
24	Global Water Partnership	Burkina Faso	NGO
25	International Water Management Institute	Ghana	
26	Ministry Of Water and Environment	Chad	African Government
27	Lesotho Highlands Water Commission	Lesotho	African Government
28	Minister of Natural Resources	Lesotho	African Government

29 Técnologies de Information et de la Communication Mauritania African Government 31 Ecowas Senegal African Government 32 Ecowas Senegal African Government 33 Ministry of Water and Energy Burkina Faso African Government 34 Ministry of Water and Energy Republic of Central Africa African Government 35 Ministry of Water and su Sahel Tunisia Environmental Agency 36 Communauté économique et monétaire de l'Afrique Gabon African Government 37 Autorité du bassin du Niger CicCOS - Commission des forets dafrique centrale African Government 37 Autorité du bassin du Niger African Government Oevernment1 38 Development South Africa African Government 39 NEPAD South Africa African Government 41 WMO Suisse Development Cooperation Agency 42 ZIE Burkina Faso University/Research 43 University of Loughborough UK University/Research 44 European Commission, DG European Commission, DG Eu Governmental Development Cooperation Agency 45 GTZ Germany Governmental Development Cooperation Agency <th> </th> <th>Ministère de l'Hydraulique,</th> <th></th> <th> </th>		Ministère de l'Hydraulique,		
Information et de la communicationSenegalAfrican Government30EcowasSenegalAfrican Government31Ministry of Water and EnergyBurkina FasoAfrican Government32Ministry of Water and EnergyRepublic of Central AfricaAfrican Government33Observatoire du Sahara et su SahelTunisiaEnvironmental Agency34Communauté économique et monétaire de l'AfriqueGabonAfrican Government35Ministry of Water Resources and IrrigationGabonAfrican Government36Ministry of Agriculture, Water and Rural DevelopmentAutorité du Bassin du Niger-37Autorité du bassin du Niger (CICOS - Commission des forets d'afrique centraleRepublic of Central AfricaAfrican Government39NEPADSouth AfricaAfrican Government41WMOSuisseGovernmental Development Cooperation Agency42ZIEBurkina FasoUniversity/Research43University of LoughboroughUKUniversity/Research44European Commission, DG European Water EuEUCivil Society45GWPSwedenGovernmental Development Cooperation Agency48European Commission, DG European Commission, DG European Commission, DG European Commission, DG European Commission, DG European Commission, DG FSEAUFrance49SIDASwedenGovernmental Development Cooperation Agency49SIDASwedenGovernmental <br< td=""><td></td><td>de l'Energie et des</td><td></td><td></td></br<>		de l'Energie et des		
CommunicationCommunication00EcowasStenegalAfrican Government11Ministry of Water and EnergyBurkina FasoAfrican Government12Ministry of Water and EnergyRepublic of Central AfricaAfrican Government13Observatoire du Sahara et su SahelTunisiaEnvironmental Agency14Governmunauté économique entraleGabonAfrican Government15Ministry of Water Resources and IrrigationGabonAfrican Government16Ministry of Agriculture, Water and Rural DevelopmentMinistry of Agriculture, Vater and Rural DevelopmentAfrican Government17Autorité du bassin du NigerAfrican GovernmentMinistry of Agriculture, Vater and Rural Development18CICOS - Commission des torets d'afrique centraleRepublic of Central Africa African Government19NEPADSouth AfricaAfrican Government10MVS - Organisation de SenegalSénégalAfrican Government11WMOSuisseGovernmental Development Cooperation Agency12EleBurkina FasoUniversity/Research14WMOSuisseGovernmental Development Cooperation Agency14European Ommission, DG EUEUCivil Society15GWPSwedenCivil Society16European Commission, DG EUEUGovernmental Development Cooperation Agency16SilDASwedenGovernmental Development Cooperation <td>29</td> <td></td> <td>Mauritania</td> <td>African Government</td>	29		Mauritania	African Government
30 Ecowas Senegal African Government 31 Ministry of Water and Energy Burkina Faso African Government 32 Ministry of Water and Energy Republic of Central Africa African Government 33 Observatoire du Sahara et su Sahel Tunisia Environmental Agency 34 Communauté économique et monétaire de l'Afrique Gabon African Government 35 Ministry of Water Resources and Irrigation Inistry of Water 36 Ministry of Agriculture, Water and Rural Water and Rural 37 Autorité du bassin du Niger Inistry of Agriculture, Vater and Rural 38 CiCOS - Commission des forets d'afrique centrale Republic of Central Africa African Government 39 NEPAD South Africa African Government 40 Misse Development Oliversity/Research 41 WMO Suisse Governmental Development Cooperation Agency 42 ZIE Burkina Faso University/Research 43 University of Loughborough UK University/Research 44 European Water Partnership EU Civil Society 45 GWP Sweden Governmental Environmental Agency 46 European Commission, DG Joint Resaerch				
S1EnergyBurkina PasoAffican Government32Ministry of Water and EnergyRepublic of Central AfricaAfrican Government33Observatoire du Sahara et su SahelTunisiaEnvironmental Agency34Communauté économique et monétaire de l'Afrique centraleGabonAfrican Government35Resources and Irrigation Ministry of Water Resources and IrrigationAfrican Government36Ministry of Water Resources and IrrigationAfrican Government37Autorité du bassin du NigerAtoricit du bassin du Niger38CiCCOS - Commission des forets d'afrique centraleRepublic of Central Africa39NEPADSouth AfricaAfrican Government0MVS - Organisation de Mise en Valeur du Fleuve SenégalSenégalAfrican Government41WMOSuisseGovernmental Development Cooperation Agency422IEBurkina FasoUniversity/Research44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeAidEuGovernmental Development Cooperation Agency49SIDASwedenGovernmental Development Cooperation Agency40GTZGermanyGovernmental Development Cooperation Agency41FranceFrance42ItalyGovernmental Development Cooperation Agency43University of LoughboroughItaly44Euro	30		Senegal	African Government
EnergyAfrican Government32Ministry of Water and EnergyRepublic of Central AfricaAfrican Government33Observatoire du Sahara et su SahelTunisiaEnvironmental Agency34Communauté économique et monétaire de l'Afrique centraleGabonAfrican Government35Ministry of Water Resources and IrrigationAfrican Government36Ministry of Agriculture, Water and Rural DevelopmentRepublic of Central AfricaAfrican Government37Autorité du bassin du NigerEnvironmental Autorité du bassin du NigerAfrican Government38CiCOS - Commission des forets d'afrique centraleRepublic of Central AfricaAfrican Government39NEPADSouth AfricaAfrican Government41WMOSuisseGovernmental Development Cooperation Agency422IEBurkina FasoUniversity/Research44European Water European WaterEUCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeAidEuropean Commission, DG EuropeAidFrance47Agence Francaise de Dovint Research CentreFranceGovernmental Development Cooperation Agency49SIDASwedenGovernmental Development Cooperation AgencyGovernmental Development Cooperation Agency40GTZGermanyGovernmental Development Cooperation AgencyDevelopment Cooperation Agency41WMOSwedenGovernmen	31		Burkina Faso	African Government
32EnergyRepublic of Central AfricalAfrical Governmental Agency33Observatoire du Sahara et su SahelTunisiaEnvironmental Agency34Communauté économique eentraleGabonAfrican Government35Ministry of Water Resources and IrrigationGabonAfrican Government36Ministry of Agriculture, Water and RuralGabonAfrican Government37Autorité du bassin du Niger	01			
33 su Sahel Tunisia Environmental Agency 34 Communauté économique et monétaire de l'Afrique centrale Gabon African Government 35 Ministry of Myter Resources and Irrigation African Government 36 Ministry of Agriculture, Water and Rural Development Autorité du bassin du Niger 37 Autorité du bassin du Niger African Government 38 CiCOS - Commission des forets d'afrique centrale Republic of Central Africa African Government African Government 39 NEPAD South Africa African Government 40 Mise en Valeur du Fleuve Sénégal Sénégal African Government 41 WMO Suisse Governmental Development Cooperation Agency 42 ZIE Burkina Faso University/Research 43 University of Loughborough UK University/Research 44 European Water Partnership EU Civil Society 45 GWP Sweden Civil Society 46 European Commission, DG EuropeAid European Commission, DG Governmental Development Cooperation Agency 47 Agence Francaise de Development Cooperation Agency Governme	32	Energy	Republic of Central Africa	African Government
34et monétaire de l'Afriqué centraleGabonAfrican Government35Ministry of Water Resources and Irrigation	33		Tunisia	Environmental Agency
33 Resources and Irrigation Ministry of Agriculture, 36 Water and Rural Development 37 Autorité du bassin du Niger CICOS - Commission des forets d'afrique centrale Republic of Central Africa African Government 38 CICOS - Cognissation des forets d'afrique centrale South Africa African Government 39 NEPAD South Africa African Government 40 Mise en Valeur du Fleuve Senegal Sénégal African Government 41 WMO Suisse Governmental Development Cooperation Agency 42 ZIE Burkina Faso University/Research 43 University of Loughborough UK University/Research 44 European Water Partnership EU Civil Society 45 GWP Sweden Civil Society 46 European Commission, DG EuropeAid European Commission, DG EuropeAid Governmental Development Cooperation Agency 48 European Commission, DG Joint Resaerch Centre Italy Governmental Environmental Agency 50 GTZ Germany Governmental Development Cooperation Agency 51 PSEAU	34	et monétaire de l'Afrique	Gabon	African Government
36Water and Rural DevelopmentImage: Constraint of the second s	35	Resources and Irrigation		
37Autorité du bassin du NigerCICOS - Commission des forets d'afrique centraleRepublic of Central AfricaAfrican Government38CICOS - Commission des forets d'afrique centraleRepublic of Central AfricaAfrican Government39NEPADSouth AfricaAfrican Government40OMVS - Organisation de Mise en Valeur du Fleuve SenegalSénégalAfrican Government41WMOSuisseGovernmental Development Cooperation Agency42ZIEBurkina FasoUniversity/Research43University of LoughboroughUKUniversity/Research44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG European Commission, DG Joint Resaerch CentreFrance48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenDevelopment Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceGovernmental Development Cooperation Agency52The Faculty of Geo- Information Science and Eart/ Deservation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG European Commission, DG European Commission, DG European Commission, DG European Commission, DG Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research	36	Water and Rural		
38CICOS - Commission des forets d'afrique centraleRepublic of Central AfricaAfrican Government39NEPADSouth AfricaAfrican Government40Mise en Valeur du Fleuve SenegalSénégalAfrican Governmental Development Cooperation Agency41WMOSuisseGovernmental Development Cooperation Agency422IEBurkina FasoUniversity/Research43University of LoughboroughUKUniversity/Research44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG European Commission, DG Joint Research CentreFrance47Agence Francaise de DeveloppementFrance49SIDASwedenGovernmental Development Cooperation Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceGovernmental Development Cooperation Agency52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG European Commis	37			
OMVS - Organisation de Mise en Valeur du Fleuve SenegalSénégalAfrican Governmental Development Cooperation Agency41WMOSuisseGovernmental Development Cooperation Agency422IEBurkina FasoUniversity/Research43University of LoughboroughUKUniversity/Research44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG European Commission, DG Joint Resaerch CentreFrance48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceGovernmental Development Cooperation Agency52Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EuEUGovernmental Development Cooperation Agency	38	CICOS - Commission des	Republic of Central Africa	African Government
40Mise en Valeur du Fleuve SenegalSénégalAfrican Governmental Development Cooperation Agency41WMOSuisseGovernmental Development Cooperation Agency422IEBurkina FasoUniversity/Research43University of LoughboroughUKUniversity/Research44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeanidEUGovernmental Development Cooperation Agency47Agence Francaise de DeveloppementFranceGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceGovernmental Development Cooperation Agency52Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG European Commission, DG gencyEUGovernmental Development Cooperation Agency	39	NEPAD	South Africa	African Government
41WMOSuisseDevelopment Cooperation Agency422IEBurkina FasoUniversity/Research43University of LoughboroughUKUniversity/Research44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeAidEUGovernmental Development Cooperation Agency47Agence Francaise de DeveloppementFranceGovernmental Environmental Agency48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG ServersionEUGovernmental Development Cooperation Agency	40	Mise en Valeur du Fleuve	Sénégal	African Government
422IEBurkina FasoUniversity/Research43University of LoughboroughUKUniversity/Research44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeAidEUDevelopment Cooperation Agency47Agence Francaise de DeveloppementFranceGovernmental Environmental Agency48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental Development Cooperation Agency52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Development Cooperation Agency53European Commission, DG EnvironmentEUGovernmental Development Cooperation Agency	41	WMO	Suisse	Development Cooperation
44European Water PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeAidEUGovernmental Development Cooperation Agency47Agence Francaise de DeveloppementFrance48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Development Cooperation Agency53European Commission, DG EnvironmentEUGovernmental Development Cooperation Agency	42	2IE	Burkina Faso	
44PartnershipEUCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeAidEUGovernmental Development Cooperation Agency47Agence Francaise de DeveloppementFranceItaly48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Environmental Agency	43	University of Loughborough	UK	
PartnershipSwedenCivil Society45GWPSwedenCivil Society46European Commission, DG EuropeAidEUGovernmental Development Cooperation Agency47Agence Francaise de DeveloppementFrance48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG European Commission, DG EnvironmentEuropean Commission, DG European Commission,	44	•	EU	Civil Society
46European Commission, DG EuropeAidEUGovernmental Development Cooperation Agency47Agence Francaise de DeveloppementFrance48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Development Cooperation Agency	45	•	Sweden	Civil Society
46EuropeAidEUDevelopment Cooperation Agency47Agence Francaise de DeveloppementFrance48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Environmental Agency	.0			-
47DeveloppementFrance48European Commission, DG Joint Resaerch CentreItalyGovernmental Environmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Environmental Agency	46	EuropeAid	EU	
46Joint Resaerch CentreItalyEnvironmental Agency49SIDASwedenGovernmental Development Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Environmental Agency	47	Developpement	France	
49SIDASwedenDevelopment Cooperation Agency50GTZGermanyGovernmental Development Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Environmental Agency	48		Italy	Environmental Agency
50GTZGermanyDevelopment Cooperation Agency51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Environmental Agency	49	SIDA	Sweden	Development Cooperation Agency
51PSEAUFranceEnvironmental NGO52The Faculty of Geo- Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG 	50	GTZ	Germany	Development Cooperation
52Information Science and Earth Observation (ITC) of the University of TwenteThe NetherlandsUniversity/Research53European Commission, DG EnvironmentEUGovernmental Environmental Agency	51	PSEAU	France	
⁵³ Environment EU Environmental Agency	52	Information Science and Earth Observation (ITC) of	The Netherlands	University/Research
54 University of Liverpool UK University/Research	53		EU	
	54	University of Liverpool	UK	University/Research

55	PEM	Danemark	Private sector
56	SEMIDE Euro- Mediterranean Information System on know-how in the Water sector	EU	Project - Civil Society
57	World Bank	US	Governmental Development Bank
58	FAO	Italy	United Nations
59	IRC	The Netherlands	NGO
60	University of Montpellier	France	University/Research
61	UNDP	US	United Nations
62	CEDEX		
63	European Commission, DG Development		Governmental Development Cooperation Agency
64	Institut pour la Recherche au Développement (IRD)	France	Governmental Development Cooperation Agency
65	UNESCO-IHE	The Netherlands	United Nations
66	Netherlands Water Partnership	The Netherlands	Civil Society
67	Ministry of Foreign Affairs	Spain	Governmental Development Cooperation Agency

ANNEXE 2: OUTLINE DESIGN FOR E-CONFERENCE: INSTUCTIONS SENT TO PARTICIPANTS

- An e-conference is a discussion on a specific theme among a group of people conducted via the Internet using email (e-group). The e-conference may also take place with the support of an internet website
- It appears as an interesting alternative to the traditional seminars and workshops, because it saves mission costs and lets to the participant more flexibility in his implication and time scheduling
- In general, an e-conference lasts around 3 weeks, with distinct themes/questions/goals to be achieved/discussed in each week
- E-conference roles are divided in 4 main categories:
 - The chairperson
 - Opens each e-conference with a welcome message and introduces background and themes
 - · Works in close cooperation with facilitators and organisers during the conference
 - Summarises discussions and the next steps at the end of the conference
 - Contributes to discussion: stimulate and steers discussion during e-conference together with the week's facilitator
 - The e-conference synthesis paper will be drafted by the organiser and the facilitators but it is expected that the Chair will provide final approval

These responsibilities would not be too time consuming

- The facilitator, responsible for one theme (lasting preferably one week):
 - Promotes the e-conference:
 - suggests potential e-conference subscribers
 - · Sends the announcement out to his/her contacts
 - Welcome message to participants at the beginning of his week (1 page maximum). in order to reiterate the questions set in the Background Paper and open up the discussion
 - Develops and launches the questions to be discussed, contributes to the discussion and animates the debate
 - · Contacts participants when necessary to stimulate the debate
 - Contributes and steers discussion during e-conference together with the chair
 - Makes a summary of the discussions at the end of the week, which will contribute to the final econference synthesis paper

These responsibilities could mean dealing with 1 to 5 messages per day, plus the preparation of a summary

- The organiser / backstopping
 - Suggests themes and questions
 - Develops the background material
 - Organises and manages the technological support of the conference
 - Screens the incoming emails before sending out to participants (main criteria: removal of repetitive (dialogue) or highly irrelevant emails)
 - Updates and adjust the e-group web site
 - Works jointly with the facilitators for the redaction of the final synthesis paper
- The participants
 - Take part in the discussions through emails and contribute to e-group page

European Commission

EUR 24606 EN- Joint Research Centre – Institute for Environment and Sustainability

Title: Summary of the proceedings of the AquaKnow e-conference on knowledge management for technical cooperation in the water sector in developing countries Author(s): Andrea Leone, Cesar Carmona, Celine Dondeynaz Luxembourg: Publications Office of the European Union 2010 –22pp. – 21 x 29.7 cm EUR – Scientific and Technical Research series – ISSN 1018-5593 ISBN-13: 978-92-79-18411-6 doi: 10.2788/44103

Abstract

In the framework of the EC project called "AquaKnow" an e-conference was organised on knowledge management for technical cooperation in the water sector in developing countries. The e-conference was organised by DG AIDCO and DG JRC and was held in June 2008. The chairman of the conference was Dr. Jay Bhagwan, Director of the Water Use and Waste Management in the Water Research Commission in South Africa.

Some 145 participants from 67 organisations active in the water sector in Africa, in Europe and in Latina America participated to this e-conference. The organisations were public, private, NGOs, research and high education institutions, etc...

This e-conference was an unique event to bring together an important amount of field experiences in treating the knowledge related to the water sector in the context of technical cooperation oriented to capacity building in developing countries.

This technical report resumes the many ideas put on the table and extracts some of the conclusions that were used in the design and development of the Aqua know Content Management System developed by the Water4Dev team of the IES institute of the DG JRC of the European Commission

How to obtain EU publications

Our priced publications are available from EU Bookshop (http://bookshop.europa.eu), where you can place an order with the sales agent of your choice.

The Publications Office has a worldwide network of sales agents. You can obtain their contact details by sending a fax to (352) 29 29-42758.

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.



LB-NA-24606-EN-C



