

## SPECIAL ISSUE: DEVELOPING A GLOBAL ENVIRONMENTAL FLOWS NETWORK



### INTRODUCING THE IDEA

#### Environmental Flows network – what is it about?

As the name says – the Network is about Environmental Flows (EF), which refer to water provided within a river or wetland to maintain ecosystems and the benefits they provide for people. A useful and simple way of thinking about EF is that of ‘ecological water demand’, similar to agricultural or industrial water demands. EF is effectively a balance between water resources development and the need to protect freshwater-dependent ecosystems.

#### Why do we need the Network?

Although there is a large amount of information, knowledge and experience behind the EF concept, national and international environmental policies rarely take EF into account. Only a few countries,

such as Australia, South Africa, and the UK have integrated the concept into water management. A number of countries remain completely unexposed to EF. The actual implementation of estimated and prescribed EF is even more limited. Furthermore, despite the generation of information across the globe, there is no central reference point where people can readily access or share EF-related information and knowledge, ranging from terminology, links or contacts to details of scientific EF methods, case studies, software or professional literature.

#### What is the aim of the Network?

The EF Network aims to make the EF concept accessible to managers in river basins, policy makers that shape legislation on water allocation, NGOs, governmental and international agencies and to a wider

public. Activities under the Network encourage broad dialogue on EF to support the integration of this approach into water management practices and restoration of watersheds in ways that serve environmental needs alongside livelihoods.

The Network will provide access to EF tools and expertise and will act as an open information portal for anyone interested in EF, whether it is an interest in the most basic concepts or specific technical questions. The Network will aim to facilitate communication, build capacity and education so as to expand the recognition and adoption of EF globally.

The Network will provide a gateway to share experiences and will create a support mechanism for initiating and implementing the EF work, especially in regions where exposure to EF concepts is limited.



*Villagers collecting water at the base of Mount Kilimanjaro - the Pangani Basin, Tanzania © IUCN*

## How will the Network operate?

It is anticipated that EF Network will have support from several founding organizations, which are actively involved in EF research and implementation. The Network will, at the very least, maintain a moderated mailing list, an interactive website and a regular Newsletter. The details of Network operation and organization are still under discussion and any suggestions from interested parties are welcome.

## A bit of history

The idea of the Network emerged in 2005 through the discussions between specialists from IUCN, IWMI, DHI, Delft Hydraulics and SIWI. In June 2006, the representatives of these organizations together with those from The Nature Conservancy (TNC, Washington), Swedish Water House and Centre for Ecology and Hydrology (CEH, UK) met at IUCN HQ in Gland, Switzerland to discuss the logistics of the Seminar at the World Water Week in Stockholm in August, where the idea of the Network can first be presented. The report on the Seminar follows in this Newsletter.

## What next?

Over the next year, the initiative group of the Network – represented by organizations listed above - aims to develop the Network mailing list and web site, attract funding for operation of the Network and attention of professional and

development organizations and launch the EF Network in September 2007 at the Environmental Flows Conference in Brisbane, Australia (<http://www.riversymposium.com/index.php?page=Symposium2007>). The core group would like to invite all interested organizations and individuals to join the EF Network.

An electronic survey is currently being circulated to gauge interest in the Network and for registration. To receive the survey, or submit expressions of interest and suggestions, please contact Katharine Cross IUCN – The World Conservation Union, Switzerland [Katharine.Cross@iucn.org](mailto:Katharine.Cross@iucn.org).

With the launch of the Network web site in 2007, on-line registration will be provided.



*Drinking from the River. Lower Godavari, India. Photo: Vladimir Smakhtin (IWMI)*

## ENVIRONMENTAL FLOWS SEMINAR AT THE WORLD WATER WEEK

A seminar aimed at gathering input in shaping and developing the Environmental Flows Network took place on the 21 August, 2006 in Stockholm at the World Water Week. The seminar was opened by Dr. Ger Bergkamp of IUCN, Switzerland, who welcomed over 60 participants. Two keynote speakers shared their views with the audience on EF and need for the Network. Mr Sylvand Kamugisha (IUCN,

Tanzania) [smkamugisha@panganibasin.com](mailto:smkamugisha@panganibasin.com) described the user perspective on EF and how EF are being introduced into Tanzanian water policy. Dr Mike Acreman (CEH, UK) [man@ceh.ac.uk](mailto:man@ceh.ac.uk) discussed latest developments in EF and the need for Network approach to delivering progress.

The presentations were followed by roundtable discussions involving all participants. The launching points for discussion represented critical challenges that an EF Network can help address, including:

- EF generate benefits for ecosystems with economic and social needs for people.
- EF are an essential part of Integrated Water Resources Management (IWRM) and Environmental Impact Assessment (EIA)
- EF are essential for delivering the Millennium Development Goals
- EF need technical, social, political and economic support for implementation.

The discussion focused on determining the reasons why an EF Network would be useful in delivering results for each of the above issues. In particular:

- What is the demand for an EF Network?
- Why is it urgent to meet the stated challenges?
- What are the vision and goals for the EF Network?
- What will the Network deliver?
- How will the Network achieve its goals?
- Who needs to be involved, how will they be organized and how will the Network reach out to all actors?

## Summary of discussions

Although the background of the seminar participants and their knowledge of EF issues varied, they brought a number of interesting insights about existing gaps what the Network should aim to fill.

All groups pointed out that the terminology of EF needs clarification as various definitions are used. Often

the same term is understood differently in different regions and a 'blueprint' definition of EF is missing. The lack of consistent terminology is in fact seen as a major initial constraint to promoting the EF concepts and incorporating them into IWRM and EIA. It was therefore suggested that the Network should attempt and examine the variety of existing EF definitions and perceptions, the demand for conformity or standard of EF terms and suggest relevant guidelines where necessary.

While maintenance or rehabilitation of river systems is linked to poverty issues, the contribution of flow via river ecosystems to achieving the Millennium Development Goals (MDG) and poverty alleviation is not always obvious. Benefits are created through river regulation and abstractions, but at the costs of existing benefits downstream, which are not quantified. When people talk about MDG's they think about providing water to villages and not about EF. The link between EF and MDGs needs to be demonstrated to primary stakeholders.



*At the EF Network Seminar in Stockholm, 21 August 2006; Photo: Michael van der Valk (Royal Netherlands Meteorological Institute)*

In addition, it is necessary to show how EF can be reconciled with sustainable livelihoods. The place and role of EF with relation to ecosystem goods and services need to be clarified, for example, whether EF is a service or a means to ensure a service? The information on the benefits provided by EF needs to be made explicit.

The expectations of the participants regarding what the Network will deliver were quite significant. Apart from above mentioned terminology and conceptual issues, participants suggested that the Network could:

- Contribute to and work with existing networks and toolboxes (such as the GWP ToolBox - [www.gwpforum.org](http://www.gwpforum.org))
- Work with other water organizations and networks on inclusion of EF concepts into IWRM and EIA
- Provide direction on how to start evaluating EF and the steps required to initiate EF work in a country
- Provide access to and promote the sharing of relevant expertise, tools and case studies, as well as a global bibliography on environmental flows' information and documents
- Provide information on relevant funding opportunities
- Provide information on university curricula that include EF
- Promote the inclusion of traditional knowledge in EF concepts and encourage the participation of people with traditional knowledge in the Network
- Organize capacity building workshops for local stakeholders
- Explore the possibility of establishing a specialized journal on EF – hard-copy or electronic, with peer reviewed articles—but freely available and accessible to the public
- Have sessions at relevant conferences, international and regional
- Promote the development of economic valuation of EF and understanding of benefits derived from them.



*At the EF Network Seminar in Stockholm, 21 August 2006; Photo: Mike Acreman (CEH)*

The participants also warned that the Network

- Should not just create the information hub, but help interested people on how to use the information
- Must make sure to share tools and materials beyond the website and in multiple languages to increase access to information
- Should not become another "elite" professional club, but target those lacking experience in EF and maintain free membership
- Should serve as an information signpost rather than undertaking specific projects
- Establish a protocol to interact with other different Networks
- Should not create false expectations
- Should ensure measurable outputs against which the Network's impact and effectiveness can be evaluated

More detailed minutes of the meeting are available on request from the facilitators of roundtable discussion:

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## Future Network tools

The Network functions will initially include provision of information via a mailing list, the newsletter and the web site.

The mailing list is currently being developed and expanded using existing networks and lists of participants from existing Environmental Flows workshops and conferences. To register at this time, please contact Katharine Cross ([Katharine.cross@iucn.org](mailto:Katharine.cross@iucn.org)).

The website will be designed through the joint effort of one or several organizations of the core group with subsequent administration and content maintenance on a rotating basis. The web site aims to become a clearing house of information on EF as well as a forum for Network members to share information and ask questions. Information available on the website will include:

- Background information on EF
- Information about the network with links to participating organizations
- Relevant publications and documents
- Access to new EF tools and methods
- Case studies
- Databases
- Calendar of events within the Network
- Discussion forums
- Links to distance learning courses
- Links to other Networks
- Start-up information packages for NGOs, governments, students etc.
- Expertise directory
- Grouped information by country or region
- A question-and-answer facility
- Tracking of who accesses the web site and how they use the tools/information from it.

The EF Network web site will have an evolutionary approach that changes according to user needs and demands. Currently the website is a

work in progress and can be accessed at [www.environmentalflows.net](http://www.environmentalflows.net).

This Newsletter previously focused on EF work and perspectives of environmental water management in Asia, but will expand its geographical coverage, and become the official newsletter of the Network. The newsletter will:

- Introduce new members
- Publish synopses of ongoing studies and highlights ongoing discussions
- Announce and report on workshops and other EF-related events
- Present new experiences, publications, success stories bright spots in EF field globally

Depending on funding, the Newsletter may be produced in several languages and distributed in both electronic and hardcopy versions. It will also be available on the EF Network web site.



*River food. East Rapti River, Nepal.  
Photo: Louise Korsgaard, DHI*

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## CONTACT US

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Comments and suggestions to this Newsletter, as well as essays for publication in the future issues of EF may be directed to

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Previous issues of this Newsletter are available on

<http://www.iwmi.cgiar.org/pubs/Newsletters/Index.htm>