

World Water Week Daily

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Colleen Vollberg, Conservation International



Susanne Boom, Wetlands International

Water sector needs guidelines for better integration

One of the opening sessions of World Water Week 2013 focused on the core theme for this event: The importance of building partnerships and aligning agendas.

“Although we are organised in sectors and so are the ministries of the countries we are working in, people don’t say ‘These are my environmental needs’ or ‘These are my health needs’, they just say these are my needs,” said Colleen Vollberg, Senior Manager for Freshwater and Biodiversity Policy at Conservation International in Washington DC. “We need to change the way the entire water sector works by integrating efforts to work together for sustainability.”

Conservation International’s own research in sub-Saharan Africa revealed that projects were integrating WASH and biodiversity conservation on an ad hoc basis and there were clear opportunities to develop tools for organisations to work together. The outcome is a new suite of guidelines, which are being developed by Conservation International with its partners in the Africa Biodiversity Collaborative Group, to encourage multilevel stakeholder engagement for long-term sustainable development.

“The guidelines can provide a framework for working across all sectors so though they are targeted at one group [Freshwater Conservation and WASH] they can also help facilitate WASH and agricultural projects,” explained Vollberg.

Susanne Boom of Wetlands International (WI) cited the example of the Dutch WASH Alliance, which runs in eight countries, as an example of an integrated approach to WASH practice. WI had influenced the Dutch government-backed programme to adopt a full sustainability approach in terms of financial, institutional, environmental, technical and social elements (FIETS). “The results are that the Dutch Ministry of Foreign Affairs is using a FIETS model and catchment assessments are at the basis of future WASH planning under the programme,” said Boom.

Ron Clemmer of World Vision agreed with Colleen Vollberg that it was important to get away from a silo approach to water management. “Communities are not divided into sectors—we only do that for ease of organising programmes—so we have to bring all the different sectors together to address the issues.”

Clemmer explained how his organisation had been collaborating with local farmers in Niger on an alternative to reforestation, Farmer Managed Natural Regeneration.

While reforestation can increase soil moisture in land, it can be difficult to implement. “In Niger in the 1970s and 1980s, 60 million trees were planted and there was a great emphasis on that because of the degraded landscape but less than half, maybe less than one fifth, of those trees survived,” said Clemmer.

One advantage of using natural regeneration, which depends on nurturing existing underground roots and stumps to improve soil, is that it requires an active role from farmers, which means the impacts are sustainable.

“Farmers need to cultivate the trees and cut them back or it won’t work,” explained Clemmer.

The impacts in Niger include increased food security with an additional 500,000 tonnes of grain being produced per year, which is enough for 2.5 million people and increased incomes for people of US\$100-250 per year.

“World Vision considers it so important that we have developed a model for all our offices to use,” said Clemmer.

New website to assist drought management in US

A new online tool, the Drought Risk Atlas, will go live within the next two weeks. It will provide US policymakers and stakeholders with the data to more effectively manage drought.

Speaking during yesterday's morning session on drought management, Michael Hayes from the National Drought Mitigation Center, USA, said that the new online tool would allow stakeholders to review their past and present drought conditions and their possible future outcomes. Information will be gathered from 3,000 climate change stations across the US.

"Stakeholders tend to relate to monitoring and early warning information much more easily than planning or mitigation," said Hayes. "So this allows you to build trust with stakeholders, in that droughts provide windows of opportunities to engage the stakeholders. It's also important to monitor, as you can't manage without monitoring."

In terms of global and local impact, delegates heard how US farmers faced the worst of the global droughts last year. Combined with rising pressures on global food security and competing demands for scarce water resources, policymakers are seeking to manage droughts differently.

In Brazil, there is a push to move from reactive drought management to a proactive approach. In 2012, the northeastern part of the country recorded an 80 percent decrease in agriculture production, helping to bring the issue to the national level.

"We have to pursue a good institutional and scientific approach in proactive drought management, focusing on the link between food and water," said Professor Francisco de Assis de Souza Filho, Department of Hydraulic and Environment, Ceará University, Brazil.

Speakers did accept, however, that they have a battle to convince farmers and other stakeholders to move to a more technological and scientific approach.

"Farmers face a difficult psychological choice, as they have to be the ones to trust things such as soil moisture detectors, instead of trusting what other farmers do and their own instinct," said Roberto Lenton, Director of the Robert B. Daugherty Water for Food Institute. "It's a leap of faith. We are working with farmers, however, to network and test the value of soil and moisture sensors."



Michael Hayes, National Drought Mitigation Center

Water conventions can complement each other

There is room for two international conventions on water cooperation and they would not necessarily cause fragmentation, delegates heard at yesterday's session *Water Cooperation Across Borders*.

With the originally European-based water convention established by the United Nations Economic Commission for Europe (UNECE) opening up to accept members from outside the region, speakers said that this should not impede the imminent entry of the UN Watercourses Convention (UNWC).

"Before we didn't have any conventions and now we have two of them," said Alexander Verbeek, Ministry of Foreign Affairs, the Netherlands. "There is a risk that it becomes a beauty contest between the two but I support the fact that there are synergies there for cooperation."

To help achieve this, some improvements are needed including a formal 'house' for the UNWC and the setting up of informal working groups.

"There are no really substantial differences between the two but what they do have is a difference in emphasis," said Dr Owen McIntyre, University College Cork, Ireland. "The UNECE, for example, has a greater emphasis on ecosystems, whereas the UN convention has a greater emphasis on procedural matters and is perhaps aiming to attract a broader audience."

According to Professor Joseph Dellapenna, Villanova University School of Law, USA, one area where both need further attention is in the difficult area of groundwater cooperation.

"What happens to surface water is often very different to groundwater," he said. "Pollution in a river is comparatively easier and quicker to clean up than pollution in aquifers. There still should be more attention given to groundwater precautionary principles."



Joseph Dellapenna, Villanova University School of Law

India: The challenge of behavioural change

When considering how research and evidence can affect policymaking, we need to remember that water supply and sanitation are part of a social sector, said Pankaj Jain, Secretary of the Ministry of Drinking Water & Sanitation in India at yesterday's session *Making Evidence Count in the WASH Sector*.

"We cannot simply use mathematical formulae to achieve something in a social sector like WASH and it requires much more feedback and results," said Jain. "When people's social behaviour is involved, which needs to be changed, this requires delicate handling."

Secretary Jain's remarks were made against a backdrop of evidence presented by Dean Spears of the Delhi School of Economics on the stunting of Indian children through inadequate sanitation and hygiene and in particular the effects of open defecation.



Pankaj Jain, MDWS

"Height matters for mortality, educational outcomes and productivity," said Spears. So the evidence that open defecation is in part why Indian children are on average shorter than other Asian and African children is directly relevant to policy as it affects health, education, labour and finance.

Jain said that the 2011 census had shown that only 32.7 percent of rural households had toilets and India was by far the country with the most open defecation by percentage of the population. His aim is to reduce this to zero within nine years but he admitted it could take much longer to change behaviour.

"We will have to have a lot of advocacy and handholding to convince people to go to toilets and to stop open defecation and my calculation is that this may take 20 years," said Jain.

Policy guidelines hinder Nile Basin investments

An abundance of policy frameworks, along with a lack of information in the Nile Basin, is hindering investment from the private sector, participants heard yesterday at a seminar entitled *Investments in Land & Water in the Nile Basin and TWM Nexus*. The vast area of available land in the Nile Basin provides the opportunity for a profitable market, yet the private sector is still finding it difficult to undertake investments.

"There is plenty of land and water in the basin and so there is great potential but that is contrasted against poor infrastructure, difficult legal framework, country differences and many other obstacles," said Emil Sandström, Senior Lecturer at the Swedish University of Agricultural Sciences. "We noted in our working group that a lot of policy frameworks exist at both national and international level, such as FAO (The Food and Agriculture Organization of the United Nations) and World Bank guidelines. Development corporations like SIDA and other agencies, have also developed their own guidelines and policies on land investments. So maybe there are too many frameworks circling around, preventing investment."

At 6,700 kilometres in length, the Nile is the world's longest river, flowing through ten countries in northeastern Africa. Water resources play a significant role in investments in agricultural land in countries such as Ethiopia, Egypt, Sudan and South Sudan, contributing to regional economic development, trade and food security. However, transboundary hydro-political decision-making processes and negotiations, together with a lack of information, are hindering new investments.

"There is information available on an overarching level but



Emil Sandström, Swedish University of Agricultural Sciences

not as much when you come down to country or regional level," said Dr Anders Jäger-skog, Director of the Trans-boundary Water Management at SIWI. "The type of information actors reach for and seek is often dependent on where they come from, and of course in line with their interests. There is definitely more need for information at the country level."

Terje Oestigaard of The Nordic Africa Institute made a presentation analysing the water prospects in the Nile Basin in relation to emerging land acquisitions. He stressed how food security was a huge concern for the region and without land investments, this would only get worse.

"Perhaps nowhere in the world is the food-water-energy nexus more explicit than in the Nile, both locally and globally," said Oestigaard. "In the Nile Basin the food issue is serious and recurrent."

In 1950, there were around six million people living in the basin. By 2050, Oestigaard explained that this is expected to have increased by 10 times, raising enormous concerns about food production for residents of the basin.

"There is certainly potential for irrigated land culture but most foreign investors would like to have secure water access and that in practice means irrigation in one way or another," said Oestigaard.

Why are you attending World Water Week in Stockholm?



"We are here to have more contact with other countries, and from our exhibition booth, we will distribute information on our work related to weather, climate and water." Niranjana Tamrakar, World Meteorological Organization, Switzerland.



"I am attending for the first time to present part of my PhD research and I'm looking forward to meeting interesting people who work on water and sanitation issues." Alexandra Horst, Swiss Federal Institute of Technology Zurich, Switzerland.



"I am doing my master's thesis on water consumption in a company, so I thought it would be a perfect opportunity to know what is going on." Melissa Martinez Hernandez, Fresenius Kabi AB, Sweden.



"World Water Week is a market place of ideas for people that work in the water sector. It's great for networking and passing on knowledge." Oliver Odikamnor, Ebonyi State University, Nigeria.



"I am speaking at the young professionals seminar where the idea is to give the voice of the youth in this conference." Anna Oposa, Asian Development Bank, Philippines.



"I just arrived in Sweden to study environmental management and policy at Lund University. My classes don't start yet so I thought this would be a great opportunity to go to a conference that pertains to what I'm studying." Steven Curtis, Lund University, United States.



"In our production and operations regarding all our products, we need water. And we are also responsible for the treatment and reduction of water, so that's why it's important to be here." Marie Louise Elmgren, Nestlé, Sweden.



"I came in preparation for the 7th World Water Forum to be held in South Korea in 2015. There are many contacts here to meet in preparation for this." Yoonjon Kim, Korea Water Forum, South Korea.

New knowledge tools help combat climate change

UNESCO and the OECD yesterday unveiled new tools to help countries face up to the challenges of climate change adaptation and the threats to water security that climate change brings.

Speaking at the afternoon seminar *New Knowledge, New Practice for Resilient Water Security*, speakers stressed the importance of building an interface between science and policymaking to combat the risks of climate change.

Water is the main channel through which the impact of climate change will be felt and Kathleen Dominique, Environmental Economist with the OECD, has produced a new report to provide guidance to policymakers to help improve the prioritisation and efficiency of their responses.

“There is a window of opportunity as water is a priority for adaptation and many country strategies are being formulated now so a lot can be done for water,” said Dominique.

The report *Water and Climate Change Adaptation: Policies to Navigate Uncharted Waters* will be officially launched today by OECD Secretary General Angel Gurría, who will speak on today’s High Level Panel.



Kathleen Dominique, OECD

Alongside the recommendations of the report, the OECD is launching a new website which will include country profiles of the 34 members detailing the main climate change impacts on national adaptation strategies and policy responses.

Anil Mishra of UNESCO’s International Hydrological Programme took delegates through several initiatives, which the agency is leading. G-WADI is a global network aimed at strengthening capacity to manage the water resources of arid and semi-arid areas. Regular workshops are organised by G-WADI to assist member states with drought monitoring, groundwater modelling and water harvesting.



Anil Mishra, UNESCO-IHMP

Regional networks have also been set up with a new centre CAZALAC established in Chile to serve Latin America and the Caribbean.

“In Chile we are working to produce drought monitoring tools and to bring in expertise from different institutions which member states can use for practical purposes,” explained Mishra.

The International Drought Initiative is another UNESCO-led forum to assist with drought monitoring using data from NASA with support from Princeton University. “The idea is to provide near real time drought monitoring, only two to three days behind,” said Mishra.

Data collection is vital for the Arab region

Data collection and storage is crucial to understanding and predicting climate change impacts on the freshwater resources in the Arab region, delegates heard yesterday. Describing their close cooperation with The Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR), Bruce Stewart of the World Meteorological Organization, stressed the importance of data collection to predicting climate trends of the future and their impacts on water resources in the region.

“It is vitally important that data and information are available as they really are the foundation stone of our knowledge and understanding,” said Stewart. “A number of people have said that climate information from the past isn’t going to be representative of what it will be in the future. But if we didn’t have that record,

we wouldn’t be able to analyse it and we wouldn’t be able to determine the trends within the climate data.”

RICCAR aims at assessing the impact of climate change on freshwater resources in the Arab Region through a consultative and integrated assessment that seeks to identify the socio-economic and environmental vulnerability caused by climate change impacts on water resources in the Arab region.

“We are looking to set up a regional knowledge hub where all the outputs of the climate modelling and vulnerability assessment outcomes will be available for researchers in the region to carry out other climate modelling exercises and support climate change adaptation policy,” said Carol Chouchani Cherfane of the United Nations Economic and Social Commission for Western Asia (ESCWA). “People have done quite a lot of climate modelling in the region but at a country



Carol Chouchani Cherfane, United Nations Economic and Social Commission for Western Asia

level or sub-regional level. This is the first time we are consolidating work to allow for cooperation across the whole Arab region.”