FIRST INTERNATIONAL ENVIRONMENT FORUM FOR BASIN ORGANIZATIONS

The First International Environment Forum for Basin Organizations took place in Nairobi, Kenya, from 26-28 November 2014, organized by the UN Environment Programme (UNEP) and co-convened with the International Network of Basin Organizations (INBO). Around 120 participants took part in the forum, including water ministers, heads of international organizations and other delegates from 45 participating governments, 25 basin organizations, and many partner institutions. Delegates shared approaches and experiences to strengthening freshwater governance in their countries and regions, and discussed ways to enhance implementation of basin-level agreements and relevant global conventions, especially in light of the entry into force of the UN Convention on the Law of the Non-Navigational Uses of International Watercourses in August 2014 (the Watercourses Convention, or UNWC).

Discussions at the forum were organized around four main themes: water quality and ecosystem health; the water-energy-food nexus and adaptation to climate change; environmental laws and regulations; and institutional challenges. Following two days of technical discussions, a high-level segment took place on Friday, 28 November.

A draft Chair’s summary was circulated as a non-negotiated document on Friday afternoon, reflecting the views and perspectives of participants on strengthening the resilience of freshwater basins. UNEP invited participants to provide comments to the secretariat. The summary highlighted issues of concern and made recommendations under the four main themes of discussion, including, inter alia: improving monitoring and assessment of basins; strengthening institutional arrangements; introducing taxes and disincentives for pollution; harmonizing norms and regulations; increasing financial support for basin organizations; and supporting basin organizations’ role in adaptation to climate change.

Delegates asked for UNEP’s support in organizing a regional basin forum in the Latin American and Caribbean region, and Egypt offered to host the Second International Environment Forum for Basin Organizations.

A BRIEF HISTORY OF INTERNATIONAL DISCUSSIONS ON FRESHWATER GOVERNANCE

Freshwater is a finite resource that is imperative for sustainable development, economic growth, political and social stability, human and ecosystem health, and poverty eradication. While water issues have long been on the international agenda, the debate on how to meet the growing global demand for freshwater has intensified in recent years, as the deadline for achieving the Millennium Development Goals approaches. Over 800 million people currently lack access to safe drinking water, while about 2.5 billion lack access to adequate sanitation, representing serious barriers to poverty eradication.

International discussions of freshwater issues have made linkages between broad environmental challenges and their implications for water security, health and poverty eradication. Climate change, including increasingly severe droughts, and hydrological changes as a result of dam construction and over-abstraction of groundwater and surface water are recognized as serious threats to human wellbeing.
The governance of freshwater and related issues such as irrigation, hydropower, agriculture and fisheries thus has risen steadily on the agenda, and is prominent in ongoing negotiations toward the post-2015 development agenda and Sustainable Development Goals (SDGs).

**UN INTERNATIONAL WATERCOURSES CONVENTION:** The groundwork for this Convention was laid with Bolivia’s request to the UN General Assembly (UNGA) in 1959 to examine legal issues relating to the utilization of international rivers. The UN Secretary-General put forward a report on the issue in 1963, following which UNGA recommended the UN International Law Commission (ILC) take up the study of the law of the non-navigational uses of international watercourses, with a view to progressive development and codification. Years of work by the ILC and several UN Special Rapporteurs resulted in the development of Draft Articles. UNGA convened a working group to negotiate a convention on the basis of the Articles, which met in 1996 and 1997. On 21 May 1997, the UN Watercourses Convention was adopted by a vote of 103 UN Member States, with 26 Member States abstaining, and three voting against the adoption.

Few countries initially ratified the Convention. In early 2006, a global initiative to accelerate the ratification process involved governments, international organizations, academics and others in raising awareness of the Convention and addressing barriers to ratification, supported by partners including the WWF, Green Cross, the UN Secretary-General’s Advisory Board on Water and Sanitation, and the UN Educational, Scientific and Cultural Organization International Hydrological Programme (UNESCO-IHP) HELP Centre for Water Law, Policy and Science. Following close to a decade of awareness raising, the Convention entered into force on 17 August 2014, when Viet Nam became the 35th country to ratify the Convention.

**UNECE WATER CONVENTION:** The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (the Water Convention) entered into force in 1996. Almost all countries sharing transboundary waters in the UN Economic Commission for Europe (UNECE) region are signatories. Under the Convention, parties are required, *inter alia*, to: prevent, control and reduce transboundary impacts of development; use transboundary waters reasonably and equitably; and manage them sustainably.

In 2003, the Convention was amended to allow accession by all UN Member States. In November 2012, the Convention reached the number of ratifications needed to open the Convention to all UN Member States, and following the conclusion of an administrative process, the Convention will soon be open to ratification by non-European states.

Parties to the Water Convention adopted a Protocol on Water and Health in London, United Kingdom, in 1999. The Protocol, which entered into force in 2005, aims to protect human health and wellbeing through better water management, including the protection of water ecosystems, and by preventing, controlling and reducing water-related diseases.

The Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters was signed in Kiev, Ukraine in 2003, at the Fifth “Environment for Europe” Ministerial Conference. The Protocol has not yet entered into force.

In its Work Programme for 2013-2015, parties to the Water Convention organized two workshops in Geneva, Switzerland, to promote exchanges of experience and good practice among joint water management bodies worldwide. The first workshop took place from 23-24 September 2013, focusing on legal and institutional arrangements. The second workshop, from 9-10 April 2014, addressed inter-sectoral coordination, infrastructure, groundwater management, environmental protection and selected management issues, including financing and communication.

**RAMSAR CONVENTION:** The Convention on Wetlands of International Importance (the Ramsar Convention) was signed in Ramsar, Iran, on 2 February 1971, and entered into force on 21 December 1975. The Convention provides a framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.

A bird’s eye view of the room during the opening of the technical segment.
The Ramsar Convention originally emphasized the conservation and wise use of wetlands providing waterfowl habitat, but subsequently broadened its scope to address all aspects of wetland conservation and wise use. There are 168 parties to the Convention, who commit themselves to designating and maintaining wetland sites of international importance and consulting with other parties on implementation, especially with regard to transboundary wetlands, shared water systems and development projects affecting wetlands.

**WORLD WATER FORUM:** Convened every three years, the World Water Forum is an initiative of the World Water Council, an international water policy think-tank established in 1996 in response to global concern over pressures on freshwater resources. The Forum is the largest international event on freshwater, and seeks to enable multi-stakeholder participation and dialogue to influence water policy at the global level in pursuit of sustainable development.

Six World Water Forum events have taken place to date in: Marrakesh, Morocco, in 1997; The Hague, Netherlands, in 2000; Kyoto, Japan, in 2003; Mexico City, Mexico, in 2006; Istanbul, Turkey, in 2009; and Marseille, France, in 2012.

Transboundary water management has been an important issue for the Forum since its inception. The First World Water Forum in Marrakesh, Morocco, in March 1997 highlighted shared water management and ecosystem conservation as being among its priority issues. The Ministerial Declaration from the Third World Water Forum in Kyoto, Japan, in March 2003, encouraged riparian states to promote cooperation on transboundary watercourses. The Ministerial Declaration of the Fifth World Water Forum in March 2009 in Istanbul, Turkey, committed to, *inter alia:* implement Integrated Water Resource Management (IWRM) at the river basin level; preserve environmental flows, increase resilience and restore ecosystems; promote cooperation on sustainable use and protection of transboundary water resources; and agree to respect international law protecting water resources during conflict.

**HYDROPOWER DISCUSSIONS:** With support from the World Bank and the International Union for the Conservation of Nature (IUCN), the World Commission on Dams (WCD) was established in May 1998 in response to escalating controversy over large dams, including those with transboundary impacts. The WCD was mandated to review the development effectiveness of large dams, and develop criteria, guidelines and standards for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams. Its final report, *Dams and Development: A new framework for decision-making,* was published in November 2000.

Debate continued over the value and applicability of the WCD framework. In 2004, the International Hydropower Association (IHA), a forum created under the auspices of UNESCO in 1995 to promote good practice, developed sustainability guidelines for the hydropower sector in accordance with the values outlined in the WCD report. This was followed up in 2006 with an initial sustainability assessment protocol for assessing compliance with the guidelines. IHA discussions around the draft assessment protocol with WWF and The Nature Conservancy led to formation of the Hydropower Sustainability Assessment Forum in 2007, which involved a wide range of stakeholders, including representatives of developed and developing country governments, the hydropower sector, social and environmental NGOs, and development banks. Forum members contributed to further development of the IHA Sustainability Assessment Protocol as a tool for assessing the social, environmental and economic performance of hydropower projects. IHA adopted a final Protocol in November 2010.

IHA is currently working on a tool to assess the greenhouse gas (GHG) exchanges of reservoirs associated with hydropower facilities. The “GHG Reservoir Screening Tool” will inform policy makers of the likely impact of a planned or existing reservoir on GHG exchanges in that river basin.

**UN SECRETARY-GENERAL’S ADVISORY BOARD ON WATER AND SANITATION (UNSGAB):** On the occasion of World Water Day in March 2004, Secretary-General Kofi Annan appointed the UNSGAB as an independent body hosted by the UN Department of Economic and Social Affairs (UNDESA) and headed by former Prime Minister of Japan Ryutaro Hashimoto.

UNSGAB’s purpose has been to galvanize action toward achievement of commitments to halve the proportion of people without access to safe drinking water and sanitation, made at the Millennium Summit in New York in the year 2000, and the World Summit on Sustainable Development in Johannesburg in 2002. The UNSGAB formulated a series of Hashimoto Action Plans (HAP I, II and III), which set a framework for global action on water and sanitation challenges.

UNSGAB calls for a dedicated water goal in the post-2015 development agenda, with three objectives: universal access to water and sanitation; improved wastewater management and pollution control; and better-integrated water resources management, underlining the linkages among these sectors and noting that making progress on access to safe drinking water and sanitation will be impossible without attention to the larger water cycle in the natural environment.

**REPORT OF THE MEETING**

**OPENING OF TECHNICAL SEGMENT**

On Wednesday 26 November, Thomas Chiramba, Chief, Freshwater Ecosystems Unit, UN Environment Programme (UNEP), outlined the day’s agenda and introduced the opening speakers. Mette Wilkie, Department of Environmental Policy Implementation (DEPI), UNEP, welcomed participants and said the challenge for policymakers is to find a balance between economic and ecosystem demands on freshwater resources. She noted that the Forum is an opportunity to bring science, management and politics together at the basin level to strengthen freshwater governance.

Jean-François Donzier, International Network of Basin
Organizations (INBO), said that without change in water management approaches, freshwater resources are “a time bomb for humanity.” He called for urgent action to restore aquatic ecosystems, and highlighted the need for: rationalization of water user requirements; information systems on water resources; basin-level management programs; and sustainable financing for basin governance, supported by the ‘polluter pays’ principle.

Chaiporn Siripornpibul, Department of Water Resources, Thailand, said there are no alternatives to sustainable water management, and emphasized the need for strong cooperation on sustainable freshwater governance.

**THEME 1: WATER QUALITY AND ECOSYSTEM HEALTH**

Abd Salam El Vilaly, Africa Rice Center, introduced the speakers and invited their comments.

**PRESENTATIONS ON WATER QUALITY:** On behalf of the UNESCO-IHE, noted the large diversity of basin organizations. He said that only about 4% of basin treaties deal with pollution and water ecology, and that they have limited enforcement capacity. He said there is a need to: assess aquatic ecosystems using biological, physico-chemical and hydro-geomorphic indicators; develop international water quality criteria for toxic substances; and strengthen the mandate of basin authorities and their cooperation with stakeholders.

Xia Jiang, Chinese Research Academy of Environmental Sciences, reported that plans for water quality improvement of Taihu Lake Basin were stepped up after a 2007 crisis, when water users lacked useable water and massive fish deaths occurred due to increased eutrophication and proliferation of algal blooms. She said implementation of water quality regulations and joint consultative processes in riparian provinces had reduced nutrient inputs and, consequently, algal blooms, with visible recovery since 2009. She recommended that for long-term water quality maintenance, an independent bureau should be established, with mandates from central and local governments.

Alfredo Mamani Salinas, Executive President, Bi-national Autonomous Authority of Lake Titicaca, described cooperation between Peru and Bolivia on wastewater treatment and pollution prevention in the world’s highest navigable lake. He highlighted success factors in the two-country cooperation, including their shared history, cooperation through Ministries of Foreign Affairs, and coordination through the Bi-national Authority. Demonstrating a “geo-portal” providing water quality data from points around the lake, he emphasized that wastewater management relies on technical data, and should not be subject to political intervention.

**Discussion:** Participants commented on, inter alia: working with communities; enforcement and cooperation in transboundary basins; water quality guidelines; and the role of transboundary river basin organizations vis-à-vis national governments. One participant noted the difficulty of monitoring water quality in transboundary basins, due to lack of impetus from newly established basin organizations. Leentvaar, referencing his experience of Rhine basin cooperation, noted the process can take time, and that results will likely not be achieved in a few months or even a few years. Another participant underscored the need for good river basin data to underpin policy and decision-making, and lamented the short-term nature of international cooperation for this purpose, calling for further international support.

**PRESENTATIONS ON ECOSYSTEM HEALTH:** Joana Akrofi, Division of Early Warning and Assessment (DEWA), UNEP, and Leszek Jeremi Bialy, UNESCO International Hydrological Programme (IHP), presented the Global Environment Facility (GEF) Transboundary Waters Assessment Programme. They highlighted that the programme has so far compiled data and information on: aquifers and ground water systems in small island developing states (SIDS); fisheries and tourisms; and water and sanitation access in 276 river basins; deaths resulting from climate-related natural disasters in 66 large marine ecosystems, of which 55 are transboundary ecosystems; and effects of sea-level rise on biodiversity in oceans.

Harry Liiv, Estonian-Russian Transboundary Water Commission, referred to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (the Water Convention) and the European Union (EU) Water Framework Directive, as the basis for the Commission’s approaches, including data exchange, joint scientific studies, and agreement on common indicators of water quality. He highlighted the challenges of managing the allocation of fishery quotas and maintaining hydropower generation facilities while upgrading fish ladders that provide migratory fishes with a means of traversing dams.

Jean Baptiste Bahama, African Union Commission, spoke about how basin organizations can collaborate with Regional Economic Communities (RECs), referring to the case of the Economic Community of West African States and the Fouta Djallon Highlands, where cooperation helped facilitate resource mobilization and monitoring and assessment. Not discounting the “enormous challenges that remain,” he noted that RECs help harmonize policies on water management,
and can facilitate resource mobilization for monitoring and assessment of natural resources. Responding to a question, he said that there is a need to avoid duplication of efforts, particularly with regard to setting up new regional observatories.

**Discussion:** Participants recognized the need to consider the roles of RECs, particularly in addressing the harmonization of national water policies on water quality monitoring in basins and transboundary protected areas. A participant noted the role of forests in water provision, saying that the consequences of deforestation in catchment areas have received insufficient attention. Some participants called for including the agricultural sector in monitoring of water quality, noting it is a larger and more diffuse source of pollution than industrial activities that come from point sources. On ensuring equity between upstream and downstream water users, a panelist noted the need to involve local communities in economic activities and to ensure that benefits from economic activities upstream are shared with downstream communities.

**THEME 2: WATER-ENERGY-FOOD NEXUS AND ADAPTATION TO CLIMATE CHANGE:**

Callist Tindimugaya, Ministry of Water and Environment, Uganda, moderated the Wednesday afternoon discussions.

**PRESENTATIONS ON THE WATER-ENERGY-FOOD NEXUS:**

**Eric Hoa, UNEP, speaking on behalf of Eline Boelee, International Water Management Institute, discussed opportunities for basin organizations to implement a “nexus approach” to water governance.** He said that basin organizations have a key role to play in terms of hydropower and balancing biofuel production with food crop production. He identified the challenge of meeting energy needs for water access and treatment and, vice versa, of water needs in electricity generation, noting that food insecurity also has potential to affect water and energy access.

Lenka Thamae, Orange-Senqu River Commission (ORASECOM), reported on lessons learned from the Orange-Senqu River basin, which is shared by Botswana, Lesotho, Namibia and South Africa. He highlighted basin-level interventions to tackle challenges of water scarcity due to intensive irrigation, power generation and climate change including: the ORASECOM Joint IWRM Planning, which applies a nexus approach, and the joint water quality survey carried out every five years, based on aquatic indicator species.

Alexandra Carlier, Pontificia Universidad Catolica del Perú, discussed conflicts associated with basin management for competing uses. She outlined the evolution of Peru’s water policies that were initially based on building of infrastructure such as irrigation canals, and did not recognize indigenous peoples. She noted that a new law mandating social dialogue and the recent proliferation of water workshops have, paradoxically, increased confusion and social conflict, and she called for “genuine, dynamic communication” by creating space for farmers and indigenous peoples in this discussion.

Jonathan Lautze, International Water Management Institute, said the water-energy-food nexus approach has convening power, produces co-benefits and doesn’t displace other forms of planning, such as IWRM. He cited wastewater reuse for crops as one example of this, since it leads to larger crop yields and reduces energy consumption and pollution. Commenting on foreign direct investment (FDI) in agricultural land in Africa, he noted that this has sometimes been construed as “water grabbing,” and that linking the governance of land and water resources could help policymakers better consider the trade-offs involved in land and water management decisions.

**Discussion:** In response to a participant’s concern about the institutional context for implementing the nexus approach, Hoa said organizations have increased their interest in the nexus since 2011, and have identified their own conceptual variations and areas of focus. He noted that UNEP’s focus is ecosystem services maintenance in the context of sustainable development.

Thamae said that implementing IWRM is still a struggle for ORASECOM, but water actors in Southern Africa have begun to appreciate the contribution of the nexus approach to transboundary water governance.

A participant from Mauritania, citing the example of the Senegal River Basin Authority, said political goodwill, private-public partnerships and capacity building are important elements for successful implementation of the nexus approach.

Another participant questioned the role of basin organizations in relation to the nexus approach, saying that unlike other basin organizations, the International Commission for the Protection of Lake Constance is not involved with on-the-ground developments. A participant emphasized there is no “one size fits all” role for basin organizations, noting that whereas in Europe these organizations support research and coordinating activities, in Africa, such organizations may be involved in infrastructure development to support energy, navigation and water provision.

**PRESENTATIONS ON ADAPTATION TO CLIMATE CHANGE:**

Audra Vilaly, University of Arizona, presented USAID-funded research on the impacts of climate change on river basins in West Africa and highlighted related efforts to assess the adaptive capacity of “transboundary management institutions” such as river basin organizations. She recommended such organizations: promote collaboration with similar entities; pay greater attention to the needs of end-users, address the root causes of anthropogenic water stress; and predict, monitor and respond to climate variability and extreme weather events. She noted “an extreme lack” of assessment of the capacity, efficiency and effectiveness of river basin organizations.
Charles Biney, Volta Basin Authority, discussed decision support systems for management of floods and drought, highlighting challenges relating to lack of data and a weakening of institutions over the years. He said regional organizations, especially RECs, can play coordinating roles, and that basin organizations themselves need to focus on capacity building, data collection and knowledge management. He highlighted the African Network for Basin Organizations as a potential “platform organization” that can take messages to the international community.

Yurii Nabyvanets, Ukrainian Hydrometeorological Institute, discussed the preparation of basin vulnerability assessment and adaptation strategies, citing the example of the Dniester Basin, which is shared by Moldova and Ukraine. He explained various steps of the process: baseline studies to assess current status; climate change modeling to project expected scenarios; mapping of vulnerability and adaptation capacity to show the possible impacts; development of a strategic framework to guide basin adaptation measures; and implementation plans for reducing possible impacts.

Roland Treitler, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Thailand, discussed lessons from GIZ’s experience of working in two sub-basins in Thailand. He emphasized the ability of civil society and local communities to identify the causes of water problems, and to propose solutions such as coordinated water planning and afforestation. He presented the construction of a “living weir” from tree roots in the Tha Di watershed in southern Thailand, which is believed to help recharge groundwater and contribute to higher crop yields.

Discussion: Participants reflected on climate change as it relates to the role of basin organizations, with one participant calling climate change a “new ingredient” that has expanded basin organizations beyond their traditional role of water resources management. Another participant noted the catalyzing effect of climate change adaptation efforts on cooperation in transboundary basins. Others mentioned, *inter alia*: the need to involve grassroots constituencies; the scale of measures that basin organizations should take regarding climate change; and the need for an inventory of best practices. Biney, responding to a question, said that the inadequacy of data is linked to a lack of capacity and lack of funding, and basin organizations should demand attention from their countries and the international community, using a single voice. Vilaly said it is essential to look at site-specific dynamics and to remember that everything is interconnected.

She said that monetization or commodification of common-pool water resources can have negative effects on water supply, resulting in unexpected climate feedbacks.

**THEME 3: LAWS AND REGULATIONS**

Owen McIntyre, National University of Ireland, moderated this Thursday morning session. He contrasted the importance of enforcement under domestic law with the value of promoting “a culture of communication” to improve cooperation under international law. He called basin organizations the “front line troops of international water law” and recommended that they build partnerships with multilateral environmental agreement (MEA) secretariats, since basin organizations are already essentially involved in MEA implementation.

**PRESENTATIONS ON PERSPECTIVES ON WATER LAW AND THE ENVIRONMENT: Ariella D’Andrea, International Water Law Association, said the “greening” of water law considers the finite and vulnerable nature of freshwater ecosystems and the need to reconcile socioeconomic development with environmental protection. She noted that greening can include “intrinsic value” approaches in which humans are seen as an integral part of ecosystems, or “opportunistic” approaches that view humans as the ultimate users. She highlighted the UNWC, the International Law Commission (ILC) Articles on Transboundary Aquifers, the UNECE Water Convention, and the Protocol on Shared Watercourses in the Southern African Development Community (SADC) as examples of international water conventions that will prevent and resolve transboundary disputes.

David Coates, Convention on Biological Diversity (CBD) Secretariat, described shifts in international policy discussions, from viewing water management as a process based on trade-offs that may allow environmental degradation, to recognizing instead the role of ecosystems in achieving water management objectives. He highlighted the recognition of this relationship in the Aichi Targets, the Rio+20 outcome and the draft Sustainable Development Goals (SDGs), and he called on participants to take on board the need to manage water and ecosystems with the same attention as the built environment is managed.

Chris Perceval, Ramsar Secretariat, spoke about the role of basin organizations in wetlands conservation, particularly with regard to the Ramsar Convention. He said there are three areas of connection between Ramsar and basin organizations: memorandums of understanding (MOUs) such as in the Niger Basin; cooperation on projects with “demonstrated usefulness” for wetlands, such as in the...
Murray-Darling Basin; and conferring observer status to basin organizations at MEAs. Noting the Secretariat’s interest in engaging with basin organizations, he suggested seeking financing for basin organizations, assisting them in promoting water security, and strengthening international cooperation.

Eric Garner, International Bar Association’s Water Law Committee, discussed allocation and implementation of water rights in California, where the creation of laws and regulations involve participatory processes that build public trust. He said that basin organizations provide a forum for public participation in decision making on water management, and communication about technical, policy and legal issues.

Discussion: On questions about perceived conflict between the principles of “reasonable and equitable utilization” and the “no harm rule” in water law, D’Andrea said the no-harm rule allows for compensation, and could refer broadly to the supporting environment, for example, an aquifer, as well as the water in it. McIntyre said the no-harm rule reflects an older paradigm of peaceful co-existence in which parties are required to do the minimum, whereas “reasonable and equitable utilization” is appropriate for the comprehensive water management approaches needed in the current age.

On the role of basin organizations in encouraging compliance, McIntyre said stakeholder participation is key to ensuring “ownership” of regulations. Percival proposed strengthening penalties and offering greater access to permits and financing based on good practices in sectors such as mining, construction and agriculture.

On reconciling the human right to water with biodiversity conservation aims, Coates underscored linkages between ecosystem restoration and the delivery of benefits such as safe drinking water.

On addressing water, food and energy security concerns in the face of increased industrial and household demands, Coates stressed the need to move towards “sustainable intensification” of agriculture through seeking greater efficiencies in water and fertilizer use.

PRESENTATION ON APPLYING ENVIRONMENTAL PRINCIPLES IN FRESHWATER GOVERNANCE: Sonja Koeppel, Secretariat of the UNECE Water Convention, presented lessons learned from the Convention’s implementation, saying that it is important to, inter alia: identify common interests among riparian countries; share benefits; recognize that transboundary cooperation takes time; and take first steps via technical cooperation and joint studies. She said the Convention had played a crucial role in promoting cooperation, and provided a foundation for subsequent transboundary agreements, such as those applying to the Danube and Sava Rivers, and the Lake Peipsi in Europe.

Ilya Trombitsky, Eco-TIRAS International Environmental Association of River Keepers, reported that post-Soviet transboundary basins still struggle with water sector agencies that do not recognize IWRM. He highlighted the role of Eco-TIRAS in transforming this, and the support by the UNECE Water Convention Secretariat in assisting Ukraine and Moldova to develop transboundary cooperation for the Dniester Basin. He said once ratified, the Dniester River Basin Treaty will establish a river basin commission and set the way for similar agreements in post-Soviet territory.

Laura Meszaros, Basel, Rotterdam and Stockholm Conventions (BRS) Secretariat, discussed how basin organizations can benefit from ongoing activities under the three conventions. She suggested they could play a key role in facilitating information exchange, for example, in relation to the global monitoring programme on persistent organic pollutants under the Stockholm Convention, and applying the concept of environmentally sound management of waste under the Basel Convention.

Yang Youlin, Secretariat of the United Nations Convention to Combat Desertification (UNCCD) spoke about the UNCCD’s 10-year strategy and the role of basin organizations in the UNCCD. On the latter point, he said that basin organizations could interface with the relevant country parties to UNCCD through, inter alia: national action programs, subregional action programs, regional action programs and the Secretariat. He noted that there are overlaps between UNCCD targets and basin organization priorities and that synergies could be found.

Discussion: On the contribution of payment for ecosystem services (PES) to equitable sharing of benefits from transboundary basins, Sonja Koeppel remarked that UN-Water and the UNECE Water Convention have not set modalities for compensation schemes, but that the UNECE Water Convention adopted recommendations for PES in 2006, which can guide countries in negotiation of payment schemes at basin level.

Participants noted existing divergence in water quality standards, particularly with regard to drinking water. Some said that if water in aquifers is maintained at potable standards, then this will translate to safe water both for human consumption and for ecosystem services.
On a question about inter-State coordination on the Minamata Convention on mercury, Meszaros welcomed further cooperation. Coates said CBD parties are unlikely to deal with the impacts of mercury on humans. On further direction for the Global Water Programme, Perceval said that there is a need to engage as many people as possible in better understanding the global water cycle.

Responding to a question on funding and budgets, Koeppel said that it is preferable to include provisions for funding in transboundary agreements, and that the core funding for basin organizations should be paid by constituent countries.

**THEME 4: INSTITUTIONAL CHALLENGES**

Max Campos, Organization of American States (OAS), moderated the Thursday afternoon session.

**PRESENTATIONS ON BASIN ORGANIZATIONS AND INTERNATIONAL ENVIRONMENTAL GOVERNANCE:** Lesha Witmer, WWF International, emphasized that no good work on environmental issues is possible without good water management in place. She highlighted opportunities for basin organizations to achieve synergies in transboundary basins, including through: the UN Watercourses Convention (UNWC), which sets out principles for harmonized transboundary water governance; the Alliance for Water Stewardship to engage the private sector in water quality and quantity; and joint environmental impact assessments that apply shared water stewardship standards to assessing the impacts of hydropower.

John Nyaoro, Nile Basin Initiative, framed his remarks by emphasizing the need for cooperation in basin organizations in order to: minimize risk, avoid conflict and optimize operations and returns. He said basin organizations need to be well managed to make water available, have clear rules, and also have a dispute settlement mechanism. He underscored the need for permanent basin-level institutions with robust legal frameworks, rather than projects with limited lifespans.

Jean-François Donzier, INBO, reiterated the principle that water and aquatic ecosystems should be managed at the basin level, and outlined the aims of IWRM as: providing water to those who need it; protecting water quality; protecting ecosystems; and managing risks, such as erosion, drought and floods. He stressed the importance of dialogue, based on the idea that all basin inhabitants are “citizens” of the basin. To reinforce this idea, he suggested distributing a “basin passport” that does not carry legal obligations.

**Discussion:** A participant disputed the suggestion that water was “a missing link” in the 1990s among MEAs, saying this aspect was covered by domestic basin organizations. He highlighted perceived shortcomings of the ILC Articles on Transboundary Aquifers, commenting that the Articles are an outdated compilation of customary laws that do not refer to chapter 18 of Agenda 21, on the protection of the quality and supply of freshwater resources. Witmer emphasized that the UNWC and ILC Articles can provide a coordination mechanism for global water governance. Nyaoro added that though other MEAs have provided frameworks for water governance, the UNWC represents a milestone, being specific to water issues.

**PRESENTATIONS ON DRIVING SUSTAINABLE DEVELOPMENT THROUGH COOPERATION - CHALLENGES AND OPPORTUNITIES:** Madine Ba, Senegal River Basin Authority (OVMS), said that water management is difficult due to the need for cooperation in the face of diverging interests. He shared success stories from his basin organization, highlighting its flexible institutional structure that includes a conference of heads of states and a broad mission encompassing food security, energy development, transport and environmental protection. He underscored the organization’s resilience, noting that even when Mauritania and Senegal ceased diplomatic relations for a time in 1989, the two countries nevertheless continued cooperating in the context of the OVMS.

Charles Ngangoue, African Ministers Council on Water (AMCOW), said that the 2008 African Union summit had invited basin organizations to engage in regional dialogue. He highlighted the African common position on the post-2015 development agenda, embodied in the Monrovia Declaration of January 2013. He called on the international community to fulfill commitments made under previous agreements and provide support for basin organizations to strengthen their own information systems. He encouraged increased South-South cooperation, saying that, “water needs everybody.”

Maria Violeta Ramirez Moran, Lake Atitlán Basin Authority, emphasized challenges of solid waste disposal, sedimentation due to soil erosion in catchments, and maintaining water supply. She said that although the Basin Authority was created through citizen participation, it faces challenges engaging citizens in behavior change with regard to the land-use activities that are negatively impacting the lake.

**Discussion:** Ba, responding to a question about the invasive aquatic plant Typha said there is an information and data deficit, and it is not certain what action is needed.

Regarding stakeholder participation, Donzier reflected comments from the audience, noting difficulties with dissemination of information and mobilization of partners. He questioned whether it is possible to ensure stakeholders are represented at the highest decision-making levels, saying that although local basins may be able to do this, transboundary basins cannot realistically put thousands of stakeholders together.
Ngangoue questioned whether or not there is enough information on water in the Sahel region, and said that proper data is needed before preventative measures are taken.

**CLOSING OF TECHNICAL SEGMENT**

Arnold Kreilhuber, Head of the International Environmental Law Unit, UNEP-DELC, expressed hope that discussions in the technical segment had been useful for all participants.

Elizabeth Mrema, Director, UNEP-DELC, summarized key themes that had emerged from the two days of discussion. She acknowledged participants’ call for reinforcing cooperation among riparian states and all relevant stakeholders at the international, regional, national and local levels.

Jean-François Donzier, INBO, emphasized that the situation of river basins necessitates global cooperation, noting that basin organizations have achieved good practices that can be disseminated globally. He said the message to the high-level segment should be that “nothing is possible without strong political goodwill.”

**OPENING OF HIGH-LEVEL SEGMENT**

Douglas Cress, UNEP, welcomed participants to Friday’s high-level segment.

Achim Steiner, Executive Director, UNEP, said that shared basins account for 60% of global freshwater flow, but more than half of transboundary basins lack a cooperative framework. He called the UNWC’s entry into force “a historic moment,” saying the challenge is to further strengthen basin organizations to become central convening platforms for multiple interests around water, be they economic, social or environmental.

Donzier, INBO, underscored the importance of compiling data and information on the state of water basins in order to guide management decisions. He encouraged sharing of good practices and facilitating capacity building, and for sustainable financial support for basin organizations.

Campos, OAS, emphasized the potential of IWRM as a tool for promoting development and addressing climate challenges. He outlined the need for countries to modernize legislative frameworks, use financial resources innovatively and effectively, and ensure transparent governance.

Official Opening Remarks: Ephraim Kamuntu, Minister of Water and Environment, Uganda, placed the Forum in the context of ongoing post-2015 development agenda and SDG negotiations, and called basin organizations “key building blocks for environmental governance.” Regardless of basins’ unique characteristics, the common thread running through all of them, he said, is the need for management efficiency. He lamented that 35% of Africa’s population walk more than one kilometer for water, and only 7% of the continent’s hydropower capacity has been tapped.

**HIGH-LEVEL DISCUSSIONS**

Kamuntu, Uganda, chaired the high-level segment, inviting delegates to reflect on what resolutions can be made to support basin organizations.

Mrema, UNEP-DELC, summarized the technical segment discussions. On water quality and ecosystem health she reported that: IWRM at basin level is essential; basin organizations need renewed and long-term commitments to meet challenges of basin level governance; data management and in-depth assessments at ecosystem level are required; and there is a need for harmonization of freshwater governance through common water quality guidelines.

On the water-energy-food nexus, she underscored the crucial need for cooperation in support of sustainable water use; and the need to continue data and information sharing across nexus issues.

She noted that discussions on the theme of laws and regulations had agreed that: basin organizations and MEA secretariats should build on their synergies; capacity should be developed to understand the respective roles of international and domestic law in water governance; and protection of freshwater ecosystems should be mainstreamed into basin organization regulations.

Finally, she reported that the discussion of institutional challenges had recommended the creation of enabling conditions and promotion of stakeholder engagement, to avoid conflicting and overlapping activities by public and private-sector actors.

Ibrahim Thiaw, UNEP, then invited delegates to discuss priority actions needed to protect freshwater basin ecosystems for the continued provision of both surface and groundwater resources; ways to better support basin organizations to improve environmental governance and freshwater management; and their contributions to international processes, including the post-2015 development agenda, the UN Environment Assembly (UNEA), and the World Water Forum.

Colombia and Cuba requested UNEP to organize a regional basin forum in Latin America and to continue their support for basin projects, cautioning however that state sovereignty over basins must be respected.

Elizabeth Mrema, Director of the Division of Environmental Law and Conventions, UNEP, speaks at the closing of the technical segment.
Ghana prioritized citizen engagement and recommended enforcing buffer zone policies, coordinating stakeholders to avoid duplication of efforts, and incorporating basin protection in national development plans.

Estonia spoke about the need to secure adequate funding to improve management and scale up the work of basin organizations to improve both water quality and quantity.

Mauritania recommended prioritizing institutional and regulatory arrangements and strategies, programmes of action, consensus-based decision making, and shared management of water resources.

The Nile Basin Initiative stressed the need for permanent basin organizations that involve all basin states, and said that basin states must provide resources for them to build trust, diffuse conflict and ensure equitable utilization and development of shared resources.

Algeria urged strengthening basin organizations by recognizing them as pivotal in all aspects of water management and providing them with legal status that would allow them to coordinate activities.

Tanzania said that basin organizations are crucial in implementing the goals already embedded in MEAs and national and basin water management schemes.

The Petén Itza Lake Basin Organization emphasized the need to work together for the common good in transboundary water governance.

The Liptako-Gourma Integrated Development Authority noted the lack of data and information and called for support of African basin organizations for the development of information systems to enable understanding of the hydrography.

Argentina emphasized the need to respect national sovereignty in transboundary basin management and that IWRM should be a reference for regional water governance planning. Nicaragua prioritized addressing the effects of climate change on freshwater resources and called for funding adaptation to climate change in water basin management.

Cuba conveyed the concerns of SIDS, calling for technical and financial support to tackle the devastating impacts of extreme weather events, including water scarcity.

Egypt stressed the importance of data collection and information exchange, medium- and long-term planning, and maintaining positive momentum. He offered to host the next International Environment Forum for Basin Organizations in Cairo, Egypt.

Côte d’Ivoire suggested that basin organizations support AMCOW and participate in African Water Week initiatives.

Brazil prioritized promotion of the ecosystems-based approach, not only at domestic but also international levels. He recommended that governments involve basin organizations in establishing country positions for international negotiating processes, such as current negotiation toward the SDGs, and encouraged basin organizations to approach their own governments to put forward their views.

Tunisia emphasized management of upstream water resources and groundwater, and stressed the importance of education on water issues beginning at primary-school level.

Thiaw, UNEP, summarized the morning’s discussions. On priority actions, he noted comments on the need for: monitoring, data and assessment; prioritizing both water quality and quantity; political will; strong institutional arrangements; the creation of basin authorities where they do not yet exist; the introduction of taxes and disincentives for pollution; and an emphasis on adaptation to climate change and ecosystem-based approaches. On how to better support basin organizations, he reflected calls for: strong cooperation; appropriate legal status; implementation of rules, norms and regulations “in a non-patchwork way;” sharing of lessons learned; and financial support. On how to contribute to other forums, he noted an invitation to hold a regional forum in the Latin American and Caribbean region, and comments on the need to incorporate IWRM and ecosystem-based approaches into the SDGs; and for basin organizations to speak up to make their views heard at the national level.

When the high-level session resumed on Friday afternoon, Chair Kamuntu encouraged delegates to present broad perspectives rather than country or institutional viewpoints.

The Bi-national Autonomous Authority of Lake Titicaca noted the need to support basin organizations in water and ecosystem assessments and climate change issues, and to “streamline” nongovernmental involvement with basin organizations to avoid overlapping and competitive activities.
Venezuela said basin organizations should be instruments of peace that promote water as a fundamental right and a public asset, and apply principles of participatory IWRM.

Ethiopia urged the harmonization of modalities and standards for basin organizations, and called for financial support to facilitate capacity building and experience sharing among basin states.

Thailand said that there is a need to find common solutions for floods, drought and pollution in Southeast Asia and to develop water quality monitoring mechanisms through cooperation among basin organizations.

The India Water Foundation said that transboundary basin management has the potential to strengthen regional linkages.

Kenya prioritized the empowerment of communities to protect ecosystems and the creation of joint programmes, noting that community buy-in is one step toward regional buy-in.

Madagascar called for harmonization of indicators from the local to the global level.

Nigeria urged participants not to “reinvent the wheel” on the organization of basin operations, but rather disseminate areas of best practices.

Saint Lucia echoed calls for a Latin American and Caribbean regional basin forum and cautioned against a proliferation of agencies with overlapping responsibilities.

Rwanda noted his country’s commitment to sustainable freshwater management of the Nile and Congo Rivers and underscored needs for capacity building, green jobs in communities and support for regional organizations.

UNECE called for clearly defined powers, a strong and flexible organizational structure, clear reporting, available financing, and mechanisms for public participation in basin organizations.

Malawi reported that the riparian states of Lake Malawi are working towards ecosystem-based management of the catchment, recognizing environmental and socio-economic benefits of the lake. She highlighted the importance of the water-energy-food nexus approach in supporting sustainable development.

The CBD Secretariat said the integration of the Strategic Plan for Biodiversity 2011-2020 in basin actions is key to achieving sustainable ecosystems. He highlighted that the water-energy-food nexus approach is delivering solutions to basin-level problems, and he invited basin organizations to support MEA implementation through the national focal points.

The BRS Secretariat said basin organizations should be strengthened to facilitate information exchange among national focal points of parties to the chemicals conventions, adding that the Secretariat would continue to provide technical support.

INBO drew attention to: the European Commission’s ongoing support for the African Network of Basin Organizations for strengthening actions at the regional and sub-regional level; UNECE’s compilation of best practices from basin organizations; planned activities for the World Water Forum in 2015; and development of a concept of good water governance for island states.

WWF International emphasized the importance of a legal framework to provide shared principles in water governance, and called for support of basin organizations to develop clear mandates for MEA implementation and PES policies.

The UNCCD Secretariat said that cooperation should be the underlying factor in water resource development, and basin organizations should be strengthened to demonstrate the importance of benefit sharing.

The UNCCD Secretariat said that basin management should be considered when countries align their national action plans with regards to the UNCCD.

The Lake Atitlán Basin Authority said that it is important to improve the justice system and create spaces for the public that will allow communication to flow both ways.

Thiaw, UNEP, summarized the afternoon’s discussion. On priority actions, he reflected comments that stressed the need to, inter alia: partner with local stakeholders; give basin organizations real authority; involve local populations through decentralized bodies; avoid duplication of efforts while maintaining ambition; and establish early warning systems. On ways to support basin organizations, he noted calls to: support basin organizations in implementing MEAs, involve the private sector in creating green jobs; and make basins a platform for development, among other suggestions. On contributing to other forums, he summarized interventions on the need to establish regional forums, and for basin organizations to prepare for implementation of the SDGs. With reference to goal six on water resources in the draft SDGs, he remarked that there is a need to be vigilant to ensure harmonized implementation with the other SDGs.

**CHAIR’S SUMMARY OF THE FIRST INTERNATIONAL ENVIRONMENT FORUM FOR BASIN ORGANIZATIONS**

On Friday afternoon, a Chair’s summary was circulated as a non-negotiated document reflecting the general views and perspectives of participants. Thiaw, UNEP, invited participants to provide comments to the Secretariat so that the document could be finalized.

Chair’s summary: The summary presented participants’ perspectives that sustainable basin management requires renewed and long-term commitments from governments and regional, national and local stakeholders. In particular, the Forum noted a need to further promote the harmonization and coordination of relevant guidelines and strategies for protecting water quality for ecosystem health, including through global water quality guidelines and common terminology for ecosystem assessment, drawing on all available scientific and indigenous knowledge to produce internationally agreed criteria.

On strengthening the resilience of freshwater basins, the Forum called for strengthening basin-wide cooperation, data collection and assessment, and for prioritizing Ecosystem-Based Adaptation in basin-wide climate change adaptation strategies.
On the water-energy-food nexus, the Forum called for regular dialogue, strong cross-sectoral partnerships and information exchange, including farmers and all other stakeholders in addition to political decision makers.

On laws and regulations, the Forum acknowledged technical progress on standards and guidance under various MEAs. Participants recommended: the integration of environmental considerations into water law; mainstreaming of freshwater ecosystem protection measures into basin management plans; promotion of synergies among international environmental obligations, including MEAs and basin regimes; and maintaining consistent communication and broad-based participatory processes.

On strengthening basin organizations, the Forum called for continued institutional and policy reforms at the basin level to open the way for the engagement of community-level organizations and private sector investment. Participants also called for increased funding for basin organizations and their increased engagement with political decision makers.

On the way forward, the Forum requested UNEP and its partner organizations to continue supporting collaboration among basin organizations, including enhancing their participation in global environmental policy-setting processes, such as the UNEA, MEAs and other relevant conventions. Participants encouraged a debate on sustainable freshwater governance at the next UNEA session. They also called for INBO and other networks to be further strengthened to improve the sharing of information, experiences and good practices.

The Forum also acknowledged Egypt’s invitation to host the 2nd International Environment Forum for Basin Organizations.

**CLOSING PLENARY**

Kamuntu thanked everyone for their participation and support, saying that deliberations had been frank, productive and stimulating. He said the governance and management of transboundary freshwater will play a crucial role in responding to climate change, and that the Forum had made the case that effective governance of freshwater resources requires legal, technical and financial mechanisms. He called for the particular needs of basin organizations in protecting surface water, groundwater and related ecosystems to be addressed on a continued basis.

Thiaw thanked Minister Kamuntu for his leadership, vision and passion, referring to Uganda’s aim of conserving all wetlands of the country.

In closing, Minister Kamuntu encouraged everyone to continue the good work begun at the Forum, adding, as a last word, “persevere!”

**UPCOMING MEETINGS**

**UN-Water Annual Zaragoza Conference:** This annual by-invitation conference will bring together UN agencies, governments, business and NGOs to take stock of achievements of the 2005-2015 International Decade for Action on ‘Water for Life,’ plan next steps, and prepare for World Water Day in March 2015, focusing on the theme of ‘Water and Sustainable Development.’

*Dates:* 15-17 January 2015

*Location:* Zaragoza, Spain

**International Water Summit:** This event takes place during Abu Dhabi Sustainability Week, a platform for international dialogue and cooperation addressing water, energy and sustainability issues, including water challenges in arid regions, and investment in water, energy and environment projects.

*Dates:* 19-22 January 2015

*Location:* Abu Dhabi, United Arab Emirates

**Expert Workshop on Regional Economic Integration And Geopolitical Benefits Of Transboundary Water Cooperation:** This workshop is convened by the UNECE, and relates to the UNECE Water Convention.

*Dates:* 28-29 January 2015

*Location:* Tallinn, Estonia

**World Water Day 2015:** The theme of World Water Day 2015 will be ‘Water and Sustainable Development.’

*Dates:* 22 March 2015

**Seventh World Water Forum:** This conference is organized on the theme of ‘Water for our Future.’ Sessions will discuss approaches to fundamental water challenges, drawing on national and regional perspectives, offering opportunities for political discussions, and showcasing technological solutions.

*Dates:* 12-17 April 2015

*Location:* Daegu, South Korea
Gyeongbuk, Republic of Korea contact: World Water Forum Secretariat phone: +82-2-3475-2652 email: secretariat@worldwaterforum7.org www: http://eng.worldwaterforum7.org/main/

Expo Milano 2015: The six-month Expo, on the theme, ‘Feeding the Planet, Energy for Life,’ aims to open up a dialogue among international actors on meeting the challenge of providing nutrition for everyone on the planet, within the context of planetary resources. Participants will address issues of food and water security at meetings and seminars convened at the Expo. dates: 1 May-31 October 2015 location: Milan, Italy contact: Expo Organizers phone: +39-02-8945-9400/499 email: secretariat@unfccc.int www: http://www.expo2015.org/it

Fifth World Hydropower Congress: This event will bring together business and policy leaders to discuss strategy for the sector over the next 35 years, addressing questions of how hydropower can address the challenges of climate change, energy and water security, when developed sustainably. dates: 19-21 May 2015 location: Beijing, China contact: IHA Central Office phone: +44-20-8652-5290 fax: +44-20-8643-5600 www: http://www.hydropower.org/congress


UNEP Second International Environment Forum for Basin Organizations: The next Basin Forum will discuss issues related to sustainable freshwater governance. dates: November 2015 (TBD) location: Cairo, Egypt (TBD) contact: Iddah Kamau phone: +254-20-762-3181 email: iddah.kamau@unep.org

GLOSSARY

CBD Convention on Biological Diversity
GEF Global Environment Facility
ILC International Law Commission
INBO International Network of Basin Organizations
IWRM Integrated water resources management
MEAs Multilateral environmental agreements
RECs Regional Economic Communities
SIDS Small island developing states
SDGs Sustainable Development Goals
UNCCD UN Convention to Combat Desertification
UNCCCE UN Economic Commission for Europe
UNEP UN Environment Programme
UNESCO UN Educational, Scientific and Cultural Organization
UNWC UN Watercourses Convention