

IWRA *Update*

Newsletter of the International Water Resources Association

SEPTEMBER 2016 | VOLUME 29 | ISSUE 3



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Grand Ethiopian Renaissance Dam
under construction, 2016.
© Kevin Wheeler

www.iwra.org



EDITORIAL

Patrick Lavarde, President

Dear Members,

The IWRA has finished a great summer with a busy week in Stockholm for World Water Week 2016. The IWRA was well represented there by four members of its Executive Office, and by no less than seven members of the IWRA Board, and three members of the bureau for the International Scientific Committee for the XVI World Water Congress. World Water Week is always a good opportunity to reconnect with familiar faces, to meet new people, and of course to promote the activities of our organisation in preparation for the XVI World Water Congress in Cancun next May.

We are now only 8 months away from the XVI World Water Congress. The call for papers, special sessions and side events is still open. The deadlines have been extended (October 15th for abstracts for oral & poster presentations; November 15th for special session proposals; and December 1st for side event proposals), so I encourage you to get your applications in as soon as possible. As ever, our Executive Office is here to help with any queries relating to these submissions. At the same time, registration to attend the XVI World Water Congress is now open and you can find more information on all of this at www.worldwatercongress.com.

The last quarter of 2016 is already set to be a busy period for the IWRA and the world of water, with a number of big events coming up, most of which the IWRA will be involved in some way. This includes the Korea International Water Week, Budapest Water Summit 2016, the World Water Council's 60th Board of Governors' meeting in Marseille, and the COP22 discussions in Marrakech. The IWRA is also forging ahead with strengthening existing and developing new relationships over the same period, with a number of MoUs in the pipeline.

Thinking beyond this year and the next 12 months, the IWRA has also launched the call for expressions of interest to host the XVII World Water Congress. So if you know of any organisation that would be interested in being the host following ANEAS and CONAGUA in Mexico, please put them in touch with our Executive Office.

Finally, our Executive Office is now well settled into its new home in Paris. There have already been a number of excellent interns who have passed through our doors over the summer, and the team is now looking to expand with the addition of a communications officer. It is a very exciting time to be part of this organisation as we continue to evolve, and I look forward to keeping you updated with developments as they occur.

Here's to a productive autumn!

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WORLD WATER CONGRESS



XVI World Water Congress

International Water Resources Association (IWRA)
Cancun, Quintana Roo, Mexico 2017
29th May to June 2nd 2017

**REGISTRATION
IS OPEN!**

The Organising Committee of the XVI World Water Congress, composed of the International Water Resources Association (IWRA), the National Water Commission of Mexico (CONAGUA) and the National Association of Water and Sanitation Utilities of Mexico (ANEAS) is pleased to invite you to participate in the Congress to be held in ICC Cancun Convention Centre in Cancun, Quintana Roo, from 29 May to 2 June 2017.

We look forward to your participation!

Follow the link to the registration platform :

iwra2017.xporegistro.com



XVI WORLD WATER CONGRESS

XVI WORLD WATER CONGRESS

Reminder: Revised deadlines



“Bridging Science and Policy”

How to develop and implement scientifically sound policies for the utilization, conservation, protection, and administration of water resources.

www.worldwatercongress.com

You are invited to participate in the XVI World Water Congress in Cancun in May 2017, to join more than 1,000 delegates at the forefront of international water research and policy-making.

CALL FOR ABSTRACTS AND PROPOSALS

The International Scientific Committee (ISC) for the XVI World Water Congress welcomes papers for oral and posters presentation, as well as Special Session proposals that aim to incorporate science and policy for the water challenges facing our world. Experts, academics, water professionals, and stakeholders from all disciplines – including natural and social sciences, policy-making, economics, management, and governance – who wish to present their work and research during the Congress must submit proposals abiding by the following extended deadlines:

- **15th October 2016:** deadline for submission of abstracts for oral presentations
 - **15th November 2016:** deadline for submission of Special Session proposals
- Abstract and Special Sessions proposals must be prepared in English and submitted through the Abstract Submission Platform:

www.wwc2017.iwra.org

- **1st December 2016:** deadline for Side Events

Governmental, non-governmental, and inter-governmental organizations, as well as private entities, who wish to organize side events on relevant topics in conjunction with the Congress, or to host a stand, should contact office@iwra.org with their proposals.



XVI WORLD WATER CONGRESS

XVI WORLD WATER CONGRESS

Call for Awards Nominations

Crystal Drop Award and Ven Te Chow Memorial Lecture

IWRA is calling for nominations for the following distinguished awards, to be presented at the XVI World Water Congress in Cancun, May 2017. Nominations should be sent by e-mail to awards@iwra.com, before 10th January 2017.

Crystal Drop Award

The Crystal Drop Award is provided to organizations or individuals in recognition of their laudable contributions to the improvement of the world's water situation. These contributions may be through a) path-breaking research on water issues; b) practice in water management or governance; c) knowledge transfer or dissemination and/or d) outstanding contributions not covered by the above.

A nomination for the Crystal Drop Award must include:

1. name of organization or person nominated;
2. basic information on the candidate, including:
 - A. a short (up to 1,000 words) synopsis (for an organization) or curriculum vitae (for a person);
 - B. a description of the most important contributions to be considered for nomination;
3. at least two letters of recommendation from persons other than the nominator

Ven Te Chow Memorial Award and Lecture

The Ven Te Chow Memorial Lecture provides for an outstanding lecture at its Congresses in honour of the first president of the IWRA. Nominees should be well-known in the water community, and have a demonstrated ability to give outstanding lectures. The awardee will be expected to deliver a lecture at the World Water Congress that promotes the objectives of the IWRA, especially to a) lead and influence water policy and governance; b) develop and publicize tools for assessment, improvement and conjunctive use of water; c) advance water resources planning, management, development, technology, research and education at international, regional, and national levels and d) generate, synthesize, and disseminate knowledge and information in the area of water and related resources and the environment.

A nomination for the Ven Te Chow Award and Lecture must include:

1. name of person nominated;
2. basic information on the candidate, including:
 - A. a short (up to 1000 words) curriculum vitae
 - B. a description of the most important contributions to be considered for nomination
 - C. an indication of the topic(s) of a lecture to the World Water Congress
3. at least two letters of recommendation from persons other than the nominator

Both IWRA members and non-members may propose nominations. Nominees do not need to be IWRA members, but if they are not, they will be encouraged to join. Members of the Awards Committee may not be nominees but can and should make nominations, in which case they will recuse themselves from voting on their own nominees. No person or organization may be nominated for more than one award.



XVII WORLD WATER CONGRESS

CALL FOR LETTERS OF INTEREST



The IWRA is very pleased to announce the formal call for expressions of interest to host the XVII World Water Congress, which will follow on from the XVI World Water Congress currently being planned in Cancun, Mexico. The XVII World Water Congress is expected to be held for 5 days in either the second half of 2019 or the first half of 2020. You can download the basic terms of reference [here](#).

The call is in two phases. The first phase is the submission of a 2-page letter setting out your organisation's interest and motivation to host the World Water Congress. This must be received by the IWRA by the end of November 2016. Following review of these initial expressions of interest, selected applicants will then be invited to submit a full detailed application by the 15th of February 2017.

The winner of the selection process will be formally announced at the upcoming XVI World Water Congress hosted by ANEAS and CONAGUA in Cancun, Mexico, between May 29th and June 2nd, 2017.

If you have any queries regarding the call, please contact the IWRA office at office@iwra.org

IWRA UPDATE

Would you like to be part of the IWRA team?

The Executive Office is currently looking for a full-time Consultant Communications Officer in Paris, to support us in the lead-up to the XVI World Water Congress www.worldwatercongress.com in Cancun, Mexico in late May 2017.

Mission

- Develop a communications strategy for the Association with the Executive Director
- Internal membership communication:
- Compilation of IWRA's quarterly newsletter
- Maintaining a media database (videos, webinars, Congress materials, etc.)
- Outreach to the membership network
- Archiving communications material for members

Regular external communications activities

- Maintaining and updating the IWRA website
- Drafting communication documents about IWRA and its Congresses
- Liaison with the World Water Congress hosts to create communications material
- Management of social media (Facebook, Twitter, LinkedIn, YouTube)
- Press relations
- Media monitoring on the water sector
- Event related communications
- Preparing booths/stands at events
- Drafting documents for events
- Communicating before/during/after any event
- Preparing and distributing press releases

Candidate Profile

Essential

- Master Diploma required in communication
- Fluent level of English
- Good level of French
- Capacity to work on different issues at the same time
- Ability to work under your own initiative and in a team

Desirable

- Knowledge of the water sector
- Ability to speak Spanish
- Ability to speak other languages

Contract Conditions

Office facilities will be provided at the IWRA Executive Office.
The conditions are negotiable.

Contact

**Please send your CV
and covering letter
by 15th October 2016 to:**

Mr. Callum Clench
IWRA Executive Director
Email: office@iwra.org
Tel.: +33-1-41-20-16-28



IN MEMORIAM

Professor William Hall Christie Maxwell (1936-2016)

Professor Maxell was born in Coleraine, County Londonderry, Northern Ireland on January 25, 1936 to William Robert Maxwell and Catherine Dempsey Maxwell.

He earned a bachelor's and master's degrees from Queen's University of Belfast, N. Ireland and Queen's University of Kingston Ontario, Canada. He then moved to the United States where he earned his Ph.D. from the University of Minnesota in 1964. The same year, he joined the faculty of Civil and Environmental Engineering Department at the University of Illinois at Urbana-Champaign. Maxwell then progressed from Assistant Professor to full Professor and was teaching and conducting research in hydraulics, advising engineering students, and mentoring numerous Graduate Students until his retirement in 1996. Because of his own experience as a graduate student in Canada and the United States, he understood the needs and worries of graduate students from foreign countries. He used to invite all his graduate students to his home for Thanksgiving dinner prepared by his wife, Carolyn. We all spent wonderful times enjoying the food and socializing with Professor Maxwell's family. He was a very generous man.

Prof. Maxwell served the International Water Resources Association in different capacities after joining the editorial staff of Water International at the invitation of the late Professor Ven Te Chow, who was the President of IWRA and the Editor in Chief of Water International. He worked on the journal from the beginning, first as the Calendar Editor and then the Technical Editor. After nine years in the latter position, he assumed the responsibility of Editor-in-Chief at the request of the late Dr. Glenn Stout who became Executive Director of IWRA. After serving as Editor-in-Chief for eight years, he served as Senior Editor for the next four years, assisting us, who took over the responsibility of the Editor-in-Chief. In total, he served over twenty years in the international water community by selecting and editing timely articles for Water International – more than half of its history.

Prof. Maxwell was a devoted family man, and was always talking about them. He is survived by his wife, Carolyn, four children, and eight much-loved grandchildren. He was a kind and cosmopolitan gentleman and scholar who left an indelible, positive impact on the journal and the lives of those he touched. He will be sorely missed.

Drs. **Nani Bhowmik** and **Mike Demissie**,
 Editors-in-Chief, Water International, 1994-1998



INTERVIEW

Gabriel Eckstein,

chair of the ISC (International Scientific Committee)



Gabriel Eckstein is a professor of law at Texas A&M University School of Law, in Fort Worth, TX, where he is a Member of the Texas A&M University Water Management and Hydrological Science Graduate Faculty and the Texas A&M University Energy Institute. Professor Eckstein specialises in water and environmental law and policy at both the US and international levels. He has served as an expert advisor and consultant on US and international environmental and water issues to various organisations and programmes. He is also the chair of the International Scientific Committee for the XVI World Water Congress in Cancun, Mexico.

> How did you get to know IWRA and what made you want to be part of the organisation?

I am not sure how I first learned about IWRA, but it was probably in the context of my work on the management and law of transboundary aquifers. I had wanted to be engaged with other professionals working on various water issues from an interdisciplinary perspective and IWRA seemed like the ideal platform. I became especially active around 2010, when Cecilia Tortajada, who served as IWRA President at that time, recruited me to serve on the Executive Board.

INTERVIEW

> What is your role as the chair of the ISC regarding the XVI World Water Congress?

As ISC Chair, my role encompasses the integrity of the content of the Congress. In other words, I am responsible for ensuring that all panels, special sessions, and other substantive components are thematically consistent and of the highest calibre. This includes overseeing the submission and review process for abstracts and special sessions, coordinating with IWRA partners and collaborators in the development of high-level panels and keynote speakers, and facilitating the Congress work products, such as the Congress proceedings. Invariably, I am also tasked with coordinating with the Mexican National Organizing Committee, which is responsible for all Congress logistics and local planning.

> What do you think people will take away and learn from the XVI World Water Congress?

At the very least, Congress participants will have a fantastic opportunity to engage and network with water professionals from around the world and will take home new ideas for projects and methodologies, contacts for new friends, and wonderful memories. But they will likely also take with them an understanding that they are an important part of a larger enterprise that is striving to help the world make advances in water management and improve the lives of billions. Past IWRA Congresses have played important roles in achieving global water-related milestones. Those achievements, however, were always spurred by the delegates and participants at the Congress.

> For you, what are currently the biggest issues around water law?

I believe that the management of transboundary aquifers is a growing critical issue worldwide. Nations are now beginning to realise that the aquifers beneath their feet are all-too-often shared with neighbouring countries and that rules for the transboundary management, development, and conservation of those resources is critical to ensure their sustainable use. I also believe that water law, as a tool of water management, must be flexible and able to respond to new information and circumstances. Hence, our ability to develop legal mechanisms that are flexible and adaptive is a critical issue that must be pursued at all levels of civil society.

LATEST ACTIVITIES



FOCUS ON: STOCKHOLM WORLD WATER WEEK

The Executive Office was present at the 2016 World Water Week in Stockholm, as well as almost half of our Board members. This intense and busy week was a golden opportunity to not only promote the next World Water Congress, but also to meet fabulous professionals from the water sector and IWRA members from all over the world, but also to attract new members!

Focused on the theme “water, jobs and sustainable growth”, the 2016 World Water Week had a great line-up of speakers, exciting events and seminars. It gave echo to and followed up on the UN 2016 World Water Day theme “water and jobs”, but expanded to the broader context of sustainable growth, therefore contributing to the SDG 8 “promote sustained, inclusive and sustainable growth, full and productive employment and decent work for all”. As ever, while water is the focus of UN SDG 6, it also cuts across many of the SDGs. Here are some highlights we have selected from the week’s activities for the information of our members.

LAUNCH OF THE WATER INTERNATIONAL SPECIAL ISSUE ON THE GRAND ETHIOPIAN RENAISSANCE DAM



Ana Cascão and Zeray Yihdego and Alistair Rieu-Clarke were guest co-editors for the Special Issue of Water International on the Grand Ethiopian Renaissance Dam (GERD) organised a formal launch of the issue in Stockholm. The event was attended by a dozen of government officials from Egypt, Sudan and Ethiopia (including the Sudanese Minister of water resources), researchers, scholars and journalists. About 40 people attended in total.

The launch was opened by IWRA Executive Director Callum Clench, followed by brief explanations of the reasons, objectives, processes and key messages of the Special Issue by Dr. Ana Cascão and Dr. Zeray Yihdego, followed by a good summary of the second article by Kevin Wheeler. Three experts on Nile River Basin issues from Ethiopia, Sudan and Egypt presented their overall review of the articles in the Special Issue. This then led to general comments and feedback from the audience: the overall impression expressed by officials, researchers and members of civil society was extremely positive. Thanks to Ana Cascão and SIWI for making the launch a great success!

LATEST ACTIVITIES



FOCUS ON: STOCKHOLM WORLD WATER WEEK

“ACTIONS SPEAK LOUDER THAN WORDS: IMPLEMENTATION ROADMAPS FOR CATALYSING CHANGE”, BY THE WORLD WATER COUNCIL

In addition of providing information about the preparatory process for the 8th World Water Forum, this event coordinated by the World Water Council was a great opportunity for the Executive Office to report the progress of the Theme 3.3 “Ensuring water quality from Ridge to Reef” of the Action Monitoring System for which IWRA is the thematic champion, and in particular objective 3.3a “Within a context of global changes and limited water resources, contribute to ensuring water resources availabilities in accordance with the different water uses and their associated water quality needs”. More information can be seen at: > ams.worldwaterforum7.org

“DRIVERS FOR ACHIEVING THE SDGS: FINANCING AND INNOVATION” BY K-WATER AND THE OECD

This event, hosted by K-Water and the OECD, hosted a series of case study presentations and a discussion looking at how economic instruments and innovative approaches to water management can combine to facilitate the achievement of water-related SDG’s. Participants shared case studies in specific regions, and explored opportunities to further disseminate and replicate these examples of good practice. This discussion was moderated by Callum Clench, the IWRA Executive Director.

AUSTRALIAN WATER PARTNERSHIP: INTERNATIONAL LAUNCH OF THE AUSTRALIAN WATER REFORM NARRATIVE SERIES



IWRA’s Chair of its membership committee Gary Jones is also the Chief Executive of the Australian Water Partnership, which was well represented in Stockholm this year, where the first two narrative papers in the Australian Water Reform series were released: (i) the Overview Paper, which describes for an international audience the evolution of Australian water policy and management over the past three decades, and (ii) a paper on the arrangements preceding and during the Millennium Drought, and lessons learned through that critical water management period. Both papers were lead authored by Dr. Jane Doolan, who consulted with a number of leading public and private sector water experts to build a shared perspective of key policy and management reforms.

LATEST ACTIVITIES



FOCUS ON: STOCKHOLM WORLD WATER WEEK

#CLIMATEISWATER EVENT

This event, supported by several members of the #ClimateIsWater initiative, AGWA and the French Water Partnership, convened a High Level Panel with the COP22 High Commissioner's participation, a representative of the Green Climate Fund, and the Director of the Asia Pacific Knowledge Sharing Platform. The High Commissioner insisted on giving a place to water during COP22; while the Green Fund highlighted its commitment to balancing financing between adaptation and mitigation, and to facilitate access for developing countries (including for capacity building). The issues of small islands and the urgency to act were shared thereafter. In conclusion we were reminded of the importance of water in mitigation and the need to break out of silos. The IWRA strongly supports the #ClimateIsWater initiative, supporting its steering committees.

OECD SEMINAR ON GOOD WATER GOVERNANCE FOR INCLUSIVE GROWTH AND POVERTY REDUCTION

This one-day seminar, co-organised by the OECD, IWMI, SIWI and other actors, tried to elaborate the core dimensions of water governance, as depicted in the OECD Principles on Water Governance, given diverse social economic and institutional environments, the need to engage actors from other sectors and the requirement to support achievement of SDG 6 targets, specifically related to local participation and IWRM. Divided into three sessions on "Tools and methodologies", "Successful case studies" and "Indicators of good governance", and partially chaired by one of our board members Aziza Akhmouch, this seminar raised a number of questions like: how can robust public policies be designed and implemented that contribute to SDG 6 and other water-related goals?; How to engage stakeholders effectively when dealing with diverse social and economic 'endowments'?; How can institutions translate local action into inclusive growth and reap the full benefits of national frameworks at all levels?; How can the food, energy and the environmental sectors be brought into the equation; and what is the private sector' contribution?; Most importantly, how to ensure accountability and avoid corruption creeping in?. The IWRA is an active member of the working groups in the OECD Water Governance Initiative.

LATEST ACTIVITIES

MEMBERS ACTIVITIES

GLOBAL INSTITUTE FOR WATER, ENVIRONMENT AND HEALTH (GIWEH)



IWRA member, the Global Institute for Water, Environment and Health (GIWEH) was elected to its second term as a Steering Board Member of the Swiss Water Partnership (SWP), as well as its first term as a Board Member of the Asia Water Council (AWC). GIWEH continues to build upon its work with the Knowledge Base & Dissemination Committee within AWC by creating a dynamic database of water solutions, titled, "Asia Dynamic Hub for Water: the Power of Information." Additionally, GIWEH will host its 4th International Conference on Water Resources and Environment (ICWRE) early next year (2017); it will focus on solutions for the agriculture and fishery sectors in order to adapt to the world economic changes and climate change challenges. As an active member of the Citizen's Process International Committee, GIWEH is planning and organizing the Citizen's Process within the 8th World Water Forum, to be held in Brasilia, Brazil in 2018.

More information can be found at:

> www.giweh.ch

GETTING A GRIPP ON GROUNDWATER

GRIPP stands for Groundwater Solutions Initiative for Policy and Practice. It is a partnership initiative that aims to unite forces to address the global challenges of groundwater, especially in emerging and developing countries. These challenges include both situations where groundwater presents a significant resource to be developed sustainably for economic growth and livelihoods – as well as where groundwater depletion and degradation are rapidly emerging as constraints for further economic development and for public and environmental health. GRIPP wants to take a 'Solutions' approach, working at the interface between research and implementation and with international, national and local partners. GRIPP wants to attract partners with diverse backgrounds and expertise in tackling groundwater issues from a host of disciplines, recognizing that understanding and solving groundwater challenges need integrated and holistic approaches.

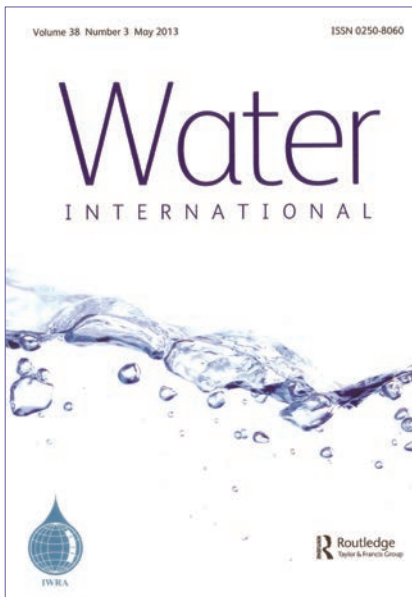
GRIPP is led by IWRA member, the International Water Management Institute (IWMI) and represents partners, which include IGRAC, IAH, MetaMeta, Daugherty Water for Food Institute, The World Conservation Union, The Nature Conservancy, Institute for Global Environmental Strategies, National Groundwater Association (USA), National Centre for Groundwater Research and Training (Australia), Africa Groundwater Network, Kickstart, Smart Water Metering and the two research programmes under CGIAR: Water, Land and Ecosystems; and Policy, Institutions and Markets.

GRIPP was recently launched with great success at Stockholm World Water Week, and in case you missed it, you can join them at the 43rd IAH Congress in Montpellier, France 25-29th September, 2016.

For more information, please visit their website for news and other upcoming events.

More information can be found at:

> gripp.iwmi.org



PUBLICATION

Water International

Issue 4, 2016

SPECIAL ISSUE

The Grand Ethiopian Renaissance Dam: Legal, Political and Scientific Challenges

Guest Editors: Zeray Yihdego, Alistair Rieu-Clarke
& Ana Elisa Cascão

Letter from the president Patrick Lavarde - Pages: 501-502

EDITORIAL

How has the Grand Ethiopian Renaissance Dam changed the legal, political, economic and scientific dynamics in the Nile Basin?

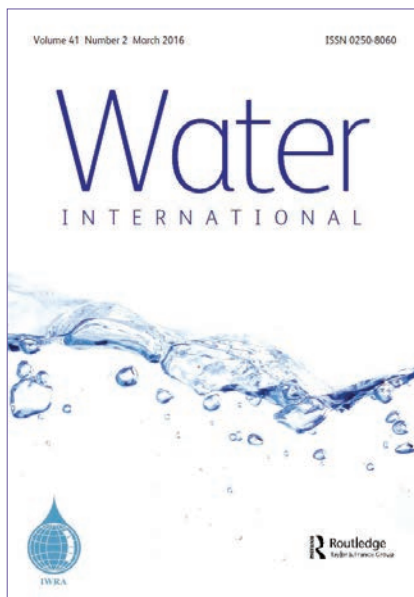
Zeray Yihdego, Alistair Rieu-Clarke & Ana Elisa Cascão - Pages: 503-511

ARTICLES

- *The Grand Ethiopian Renaissance Dam: the road to the declaration of principles and the Khartoum document*, Salman M. A. Salman - Pages: 512-527
- *An exploration of fairness in international law through the Blue Nile and GERD*, Zeray Yihdego & Alistair Rieu-Clarke - Pages: 528-549
- *GERD: new norms of cooperation in the Nile Basin?* Ana Elisa Cascão & Alan Nicol - Pages: 550-573
- *The Grand Ethiopian Renaissance Dam: a benefit-sharing project in the Eastern Nile?* Rawia Tawfik - Pages: 574-592
- *Filling the GERD: evaluating hydroclimatic variability and impoundment strategies for Blue Nile riparian countries*, Ying Zhang, Solomon Tassew Erkyihum & Paul Block - Pages: 593-610
- *Cooperative filling approaches for the Grand Ethiopian Renaissance Dam*, Kevin G. Wheeler, Mohammed Basheer, Zelalem T. Mekonnen, Sami O. Eltoun, Azeb Mersha, Gamal M. Abdo, Edith A. Zagona, Jim W. Hall & Simon J. Dadson - Pages: 611-634
- *Water challenges in the IGAD region: towards new legal frameworks for cooperation*, Marcella Nanni - Pages: 635-651

IN REMEMBRANCE

- *W. Hall C. Maxwell: In remembrance*, James E. Nickum - Pages: 652-654



PUBLICATION

Water International Issue 5, 2016

COMMENTARY

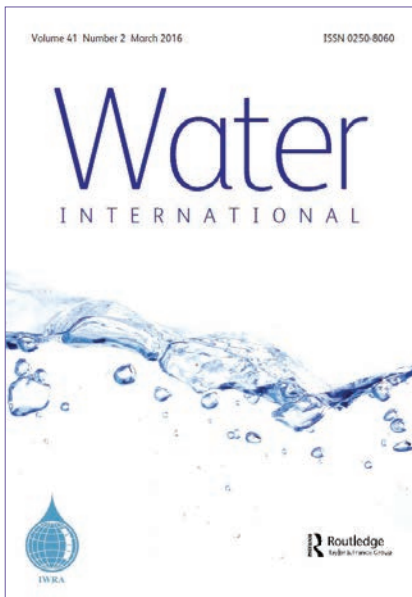
Water-Energy-Food Nexus Framework for facilitating multi-stakeholder dialogue,
 Rabi H. Mohtar & Bassel Daher - Pages: 655-661

ARTICLES

- *Creating accountability: representation and responsiveness of the irrigation bureaucracy in Punjab, Pakistan*, Kai Wegerich & Asghar Hussain
 Pages: 662-681
- *Tourism leads to wealth but increased vulnerability: a double-edged sword in Lijiang, South-West China*, Y. Su, J. Hammond, G. B. Villamor, R. E. Grumbine, J. Xu, K. Hyde, T. Pagella, N. M. Sujakhu & X. Ma - Pages: 682-697
- *Building hydroliteracy among stakeholders for effective water benefit sharing in the Andes*, Marisa Escobar, Beth-Sua Carvajal, Jorge Rubiano, Mark Mulligan & Carmen Candelo - Pages: 698-715
- *Criteria for assessing the level of land-water integration in planning instruments in Andalusia, Spain*, Mercedes Rosa España-Villanueva & Luis Miguel Valenzuela-Montes - Pages: 716-737
- *Agricultural land investments and water management in the Office du Niger, Mali: options for improved water pricing*, Yoro Sidibé & Timothy O. Williams
 Pages: 738-755
- *Desalination and water security in the US-Mexico border region: assessing the social, environmental and political impacts*, Margaret O. Wilder, Ismael Aguilar-Barajas, Nicolás Pineda-Pablos, Robert G. Varady, Sharon B. Megdal, Jamie McEvoy, Robert Merideth, Adriana A. Zúñiga-Terán & Christopher A. Scott - Pages: 756-775
- *Field investigations of the 2013-14 drought through quali-quantitative freshwater monitoring at the headwaters of the Cantareira System, Brazil*, Denise Taffarello, Guilherme Samprogna Mohor, Maria do Carmo Calijuri & Eduardo Mario Mendiondo - Pages: 776-800

BOOK REVIEW

- *Daanish Mustafa, Water resource management in a vulnerable world: the hydro-hazardscapes of climate change*, Charlotte Grech-Madin
 Pages: 801-803
- *Naho Mirumachi, Transboundary water politics in the developing world*, Kyungmee Kim - Pages: 803-805
- *Bjørn-Oliver Magsig, International water law and the quest for common security*, Stephanie Hawkins - Pages: 805-808
- *Nathaniel Matthews and Kim Geheb, Hydropower development in the Mekong region: political, socio-economic and environmental perspectives*, Milton Osborne - Pages: 808-810



PUBLICATION

Water International

Issue 6, 2016

SPECIAL ISSUE

*Legal mechanisms for water resources
in practice: Select papers from the
XV World Water Congress*

Guest Editors: Stefano Burchi, Ariella D'Andrea,
Gabriel Eckstein & Marcella Nanni

INTRODUCTION

Stefano Burchi, Ariella D'Andrea, Gabriel Eckstein & Marcella Nanni
Pages: 811-812

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- *Adaptation in the Tisza: innovation and tribulation at the sub-basin level*, Shanna N. McClain, Carl Bruch & Silvia Secchi - Pages: 813-834
- *Joint infrastructure and the sharing of benefits in the Senegal and Niger watersheds*, Mara Tignino - Pages: 835-850
- *Ad hoc legal mechanisms governing transboundary aquifers: current status and future prospects*, Laura Movilla Pateiro - Pages: 851-865
- *Governing water augmentation under the Watercourse Convention*, Rhett B. Larson - Pages: 866-882
- *Adapting water laws to increasing demand and a changing climate*, Eric L. Garner - Pages: 883-899
- *Scottish Water: a public-sector success story*, Sarah Hendry - Pages: 900-915
- *Compulsory licensing under South Africa's National Water Act*, Michael Kidd - Pages: 916-927
- *Water governance reform in the context of inequality: securing rights or legitimizing dispossession?*, Helle Munk Ravnborg - Pages: 928-943

PUBLICATION

Policy Briefs & Webinars

WEBINAR

WATER GOVERNANCE AND MINING

Date and Time

October 11th, 2016. 18:00 - 19:30 Central European (12:00 - 13:30 Eastern US)

Organizers

International Water Resources Association (webinars@iwra.org)

Moderator

Scott McKenzie, PhD Student, University of British Columbia (Canada)

Panelists

Prof. Anthony Turton, University of Free State (South Africa), Remy Kinna, Mekong Legal Director at EarthRights International (Thailand), Milgros Sosa Landeo, Wageningen University (The Netherlands)

Mining has produced untold wealth to people, communities, and nations around the world. However, the impacts on water of conventional mining for minerals, metals, petroleum, coal, and even precious stones are not potential, but appear in the scars they leave on landscapes, communities, and all too often, politics. Mines require and, in turn, dispose of vast amounts of water. They not only have significant impacts on the water while operating, but continue to affect water resources even after they have ceased operation. Despite growing recognition of the need to address these legacies and prevent them from occurring in the future, governance structures and information systems remain sorely inadequate. This webinar will discuss specific areas of inadequate hydrological, ecological and social research and the reluctance to truly empower local communities and non-governmental groups.

This webinar is based on the themes discussed in the forthcoming IWRA policy brief. This policy brief will be available at www.iwra.org. Each policy brief is written by leading experts in the field, and is a synthesis of the critical facts and arguments needed to help the reader understand timely water policy issues. These briefings are designed to reach academics, dedicated practitioners, and policy professionals in a unique and informative way. Each policy briefing coincides with a special issue of our flagship publication, Water International, allowing interested readers to further explore these salient themes and topics in more depth.

Participation

Participation is free and open to all.

Register at

> attendee.gotowebinar.com/register/6862548325996520195

October 3, 2016

18:00 - 19:30 CET - 12:00 - 13:30 EDT - 21:00 - 22:30 Jakarta

> *Other time zones here:*

www.timeanddate.com/worldclock/fixedtime.

html?msg=IWRA+Webinar&iso=20161003T18&p1=195&ah=1&am=30

PUBLICATION

Policy Brief & Webinars

POLICY BRIEF

OUT OF MINES; OUT OF SITE

from the May 2016 Special Issue of *Water International*

> Link www.iwra.org





Water
INTERNATIONAL

POLICY BRIEFING
Water International
Number 4
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**Out of Mines;
Out of Site**

KEY POLICY MESSAGES

- Mining always disturbs water as well as earth. Usually it also has social impacts. To anticipate, address and redress these impacts, governments and mining concerns need to look beyond short-term interests and work with affected populations and landscapes, not on them.
- In the past, it was all too easy for firms, governments, consumers, and people outside the mine area to look the other way: "out of mines, out of sight". Now it is necessary to recognize social and environmental damages and rights of marginalized peoples.
- Meaningful engagement with affected communities requires addressing asymmetries in power and focusing on causes rather than symptoms. This is still rarely done.

■ Arctic Water, Mopai Mopai Gold Mine, Peru
© Orlin Vargas - Grafika

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www.iwra.org/index.php?page=144

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IWRA Policy Briefs are based on WI Special Issues and are for the purpose of stimulating discussion and awareness; IWRA, as a neutral forum, does not necessarily endorse the views expressed.



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POLICY BRIEFING / Out of Mines; Out of Site / www.iwra.org

PUBLICATION

by members

On the Inapplicability of the Cobb-Douglas Production Function for Estimating the Benefit of Water Use and the Value of Water Resources

by Shaofeng Jia, Qiubo Long, Raymond Yu Wang, Jiabo Yan & Deyong Kang

Abstract: The Cobb-Douglas production function is often used to estimate the benefit of water use and the value of water; however, this is an incorrect application. A typical example of the inapplicability is that a negative output elasticity of water resources may be reached when empirical data is collected from the United States, Japan and the city of Beijing in China, where economic growth still increases when the quantity of water use decreases. It is counter-factual that the benefit of water use or the values of water resources are negatively associated with economic production as estimated by the Cobb-Douglas production function.

In the case of a positive output elasticity of water resources, the Cobb-Douglas production function cannot be used either. The main reason is that the elasticity of water resources, as an input factor, reflects only part of its total contribution to economic output. In other words, the contribution of water resources to total economic growth, to a great extent, are embodied in total factor productivity, which refers to the portion of output that cannot be explained by the amount of water resources input in the Cobb-Douglas production function. For example, many technological and socio-economic inputs such as the investment on water saving technologies and the optimization of water use structure, surely embody the value of water and account for total economic output, yet these factors are not reflected by the economic output elasticity of water resources in the Cobb-Douglas production function.

The fallacious strategy of virtual water trade

by Shaofeng Jia, Qiubo Long & Wenhua Liu

Since the concept of virtual water was put forward, there has been an increasing number of papers on the topic, as a result of which virtual water is now being mainstreamed in the water policy world. Unfortunately, virtual water trade strategy as a solution to water shortages is wrong and fallacious. Although the virtual water trade theory is considered a descendant of the comparative advantage theory of economics, it is in fact an over-simplification, going from the truth to fallacy. To make decisions of virtual water trade based on only one production factor, water, though there are many other production factors that influence the allocation of resources at the same time, is misleading theoretically and practically.

> [dx.doi.org/10.1080/07900627.2016.1180591](https://doi.org/10.1080/07900627.2016.1180591)

PUBLICATION

by members

A Low-Cost Household Level Drinking Water Treatment Device to Make a Big Deal

by A. H. M. Enamul Kabir

The writer A. H. M. Enamul Kabir is a very recent MS graduate in Environmental from Jessore University of Science and Technology (JUST), Bangladesh. His main research interest is in low-cost decentralized water treatment technology, safe drinking water supply and climate change issues. He is currently extending his research on strengthening drinking water supply in the hazard-prone hard-to-reach coastal regions of Bangladesh.

Abstract: Drinking water scarcity is an increasing problem in the most climates induced hazards-prone hard-to-reach coastal areas of Bangladesh. Climate change has exacerbated the further situation through sea level rise, frequently occurring natural disasters, shrimp farming and upstream withdrawal of freshwater. The existing water supply system is found scattered and often dysfunctional due to natural disasters, availability of suitable sources and lack of maintenance. Mostly peoples are forced to ingest direct pond water without any treatment. It has been found that quite often the households depend on sources of water adjacent to their homestead and suffer from diseases derived from saline and pathogen containing water. In that context, pond water treatment and water sourcing pattern at the point of consumption with economic feasibility can be dependable along with community based systems to develop year-round water supply in the region.

In this regard, a recent research was done on low-cost simple and small household level water treatment device i.e. BioSand Filter (BSF). The device was made using locally and commonly available materials to treat pond water. The paper about the study appeared recently in the 'American Journal of Environmental Protection'. The device can provide improved water quality, ensure affordability and availability at the point of consumption that can strengthen the access to safe water. Even such a solution seems to be attractive from an ecological point of view and resulted in improved public health outcome among individuals who are ingesting untreated pond water. Apart from that, this technology can be reached easily to poor, disadvantaged and climate vulnerable population. To conclude, the device has a greater potentiality to make a big deal in reducing the addressed safe drinking water scarcity and public health risks through bringing out prospective socio-economic development in the region.

> www.sciencepublishinggroup.com/journal/paperinfo?journalid=163&doi=10.11648/j.ajep.20160505.11

PHOTO GALLERY

Focus on the Grand Ethiopian Renaissance Dam

To highlight the Special Issue of Water International on the Great Ethiopian Renaissance Dam, we are pleased to share with you some photos from Ana Elisa Cascão et Kevin Wheeler, respectively guest co-editor and author for this issue. More details on the Special Issue on page 13.



> UPSTREAM OF THE GERD CONSTRUCTION PROJECT DURING THE NATURALLY HIGH FLOOD FLOWS. This valley will be submerged by the new reservoir. © Kevin Wheeler

PHOTO GALLERY



> BEGINNING OF FOUNDATION WORKS OF THE GERD MAIN DAM
 February 2013 © Ana Elisa Cascão



> NEARBY VILLAGE IN DRY SEASON
 February 2013 © Ana Elisa Cascão



> NEARBY VILLAGE IN RAINY SEASON
 July 2016 © Ana Elisa Cascão



> LOOKING AT THE FUTURE RESERVOIR AREA
 July 2016 © Ana Elisa Cascão

Ana Elisa Cascão is Programme Manager at the Transboundary Water Management Unit at Stockholm International Water Institute (SIWI). Ana is a political scientist with a PhD on the “Political economy of water resources management and allocation in the Eastern Nile Basin” (King’s College London – UK). For the past seven years at SIWI, she has been participating in numerous academic projects, advisory and consultancy assignments in collaboration with regional and international institutions such as the International Water Management Institute (IWMI), the Nile Basin Initiative (NBI), the Eastern Nile Technical Regional Office (ENTRO), the UNDP Water Governance Facility (UNDP-WGF), the Nile Basin Trust Fund (NBTF) and the World Bank Cooperation in International Waters in Africa (CIWA), mainly in the Nile Basin region, but as well in the Middle East and Southern Africa regions. She is the author of several academic publications on topics related to transboundary water management and cooperation.



> THE MAIN DAM OF THE GERD CONSTRUCTION PROJECT ON 31 JULY, 2016.

All water is passing through the low bypass tunnels and over the open spillway.

© Kevin Wheeler

Kevin Wheeler is a PhD candidate in the Environmental Change Institute at the University of Oxford. He holds a MSc degree in Water Science, Management and Policy from Oxford, and MSc and BSc degrees in Civil/Environmental/Water Resource Engineering from the University of Colorado. As a professional engineer and consultant, Mr. Wheeler has worked for over 15 years on a wide variety of water-related issues ranging from community-based water development as a Peace Corps volunteer in the Dominican Republic and Haiti to negotiations over contested international rivers. His work focuses on increasing water security through cooperation, specifically through collaborative development of risk-based modelling tools for seeking negotiated arrangements and coordinated management of resources and infrastructure. With 10 years of experience working on the Colorado River for federal, state, and NGO's culminating in a key technical role in the successful Minute 319 negotiations between the United States and Mexico in 2012, he now focuses on the Nile River and the need for cooperative arrangements between Ethiopia, Sudan and Egypt. His PhD explores the science-policy interface of trans-boundary negotiations and developing cooperative management strategies for the Grand Ethiopian Renaissance Dam.



> DOWNSTREAM OF THE GERD CONSTRUCTION PROJECT. © Kevin Wheeler



> OPEN SPILLWAY OF THE GERD CONSTRUCTION PROJECT.
The sill level will be incrementally raised throughout the filling process and releases can be made through the turbines, via the bottom outlets and over this spillway. © Kevin Wheeler

UPCOMING EVENTS



IWA Congress 2016

9-14 October 2016, Brisbane, Queensland, Australia

The IWA Congress & Exhibition is the global event for water professionals. It offers new insights into how pioneering science, technological innovation and leading practices shape the major transformation in water management that is underway. More information can be found at: www.iwa-network.org/event/world-water-congress-exhibition-2016



Korea International Water Week 2016

19-22 October 2016 at EXCO, Daegu, Republic of Korea

It is jointly hosted by the Ministry of Land, Infrastructure and Transport (MOLIT), Ministry of Environment (MOE), Daegu Metropolitan City, Gyeongsangbuk-do Province and organized by the Korea Water Forum (KWF). The Asia Water Council will also be a main organizer for Thematic Sessions of KIWW 2016. The objectives of KIWW are to lead the globe in solving water problems, to promote water industry and to enhance the public knowledge on water. Under the theme of "Water Partnership for Sustainable Development", with the presence of stakeholders and experts in various fields of water around the world, KIWW will serve its role as an important arena to share the recent issues and problems that the world is facing, and to expand international cooperation for deriving water solutions. More information can be found at: kiww.org



AWS Global Water Stewardship Forum

1-2 November 2016, Edinburgh, Scotland, United Kingdom

The first AWS Global Water Stewardship Forum will bring together pioneering water stewardship practitioners and promoters from around the world, providing a unique opportunity to advance the understanding and impact of AWS Water Stewardship, and to contribute to the further development of the global AWS Water Stewardship System. With the theme of "Building Participation and Ownership; Maintaining Credibility" the Forum will explore experiences from implementing and promoting the AWS STANDARD, a globally-consistent framework for major water users to understand their water use and impacts, and to work collaboratively and transparently for sustainable water management within a catchment context. More information at: www.awsforum2016.org



WORLD TOILET DAY

19 November 2016, various locations

World Toilet Day is about the 2.4 billion people who lack access to improved sanitation. It is about the nearly 1 billion people who have to defecate in the open. It is about the millions of children whose futures are compromised by poor sanitation and related nutrition problems. And it is about you, who can't wait to change this situation. Join the global campaign. Organize your own initiative, event, or project and lend your voice to the people who can't wait. More information can be found at: www.worldtoiletday.info

UPCOMING EVENTS



UNFCCC COP22

7-18 November 2016, Marrakesh, Morocco

COP22 will continue the progress made at COP21, focusing on the different priorities selected in the Paris Agreement, including those relating to adaptation, transparency, technology transfer, mitigation, capacity building and damages. For Salaheddine Mezouar, president of the COP22, this conference is an “opportunity to bring the voices of the most vulnerable countries to climate change, in particular African countries and island states. It is urgent to act before these issues related to stability and security”. In preparation for COP22, a high level meeting will take place in Rabat Morocco on the 10th and 11th July focusing on water issues. IWRA will be represented by members of the Executive Board.

More information can be found at: cop22.ma



Budapest Water Summit 2016

28-30 November 2016, Budapest, Hungary

The objective of the Budapest Water Summit 2016 is to facilitate water to be the source of cooperation, peace and development in all countries that have a stake in sustainable development, instead of being the cause of global risks and further conflicts of the 21st century. For this purpose, the participants of the Summit shall discuss and adopt the “Budapest Statement 2016” in order to be able to propose solutions to the relevant international forums.

More information can be found at: www.budapestwatersummit.hu



ICID•CIID

ICID-CIID 2nd World Irrigation Forum and 67th International Executive Council Meeting 2016

6-12 November 2016, Chang Mai, Thailand

The 2nd World Irrigation Forum (WIF2) will be hosted at Chiang Mai city, Thailand from 6-12 November 2016 on the theme “Water management in a changing World: Role of Irrigation in Sustainable Food Production”. The participants includes: policy makers, experts, researchers, consultants, manufacturers, contractors, academics and farmers through various institutions, non-governmental organizations and development agencies, etc. The triennial World Irrigation Forum aims to bring together all the stakeholders involved in irrigation and drainage and allied sectors which alone can meet the growing food demand and address poverty, in times of changing climate and depleting freshwater resources and is key to the rural transformation. The Forum addresses the various multidisciplinary perspectives that encompasses agriculture water management for rural transformation and includes irrigation, drainage, flood management, drought, land reclamation, climate and environment disciplines.

More information can be found at: www.worldirrigationforum.net

UPCOMING EVENTS

4th International Conference on Geological and Civil Engineering (ICGCE 2017)

8-10 January 2017, Penang, Malaysia

The aim objective of the 2017 4th International Conference on Geological and Civil Engineering (ICGCE 2017) is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Geological and Civil Engineering.

More information can be found at: www.icgce.org



ASTEE's 96th Annual Conference

6-9 June 2017, Liège Theatre, Belgium

ASTEE holds an annual conference bringing together water and environment professionals, so that they can interact, communicate about good practices and capitalize on their experience in that domain. The main theme for this next meeting is "Regions and the EU, working together to foster environmental transition", as EU policies heavily influence regional management, investment and development projects, particularly those dealing with water, environment and waste management. Individuals wishing to propose a paper must submit a one or two page abstract, either in English or in French, by September 15, 2016.

The abstract should be e-mailed to ASTEE's secretariat, at the following address:

liege2017@astee.org. Oral presentations can be made in French or in English.

More information can be found at: www.astee.org/evenement/96eme-congres

**If you have an event you wish to promote through the
IWRA Newsletter, please contact office@iwra.org**