

ACTIVITY REPORT 2018 INTERNATIONAL WATER RESOURCES ASSOCIATION











INTERNATIONAL WATER RESOURCES **ASSOCIATION**

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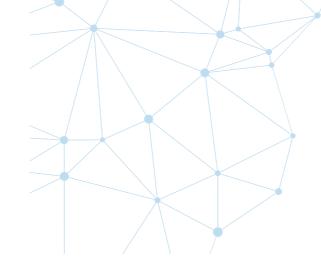
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Although 2018 was not a World Water Congress year, this year was nevertheless particularly busy and rich. The Association expanded its thematic activities by completing two ambitious reporting projects with the assistance of their associated member-led task forces, while starting preparations for the next World Water Congress planned to take place in Daegu, Republic of Korea in May 2020. 2018 was also marked by the elections for the next Executive Board for 2019-2021. In the meantime, IWRA continued its involvement and collaboration with a number of international events and networks

This report summarises the key activities that took place in 2018. It should not be seen as an exhaustive list, but rather a list of highlighted activities, supported in part by the grant we receive from the Agence Française pour la Biodiversité (AfB) the French Agency for Biodiversity, formerly known as ONEMA.





OFFICE OFFICE

The IWRA Executive Office continues to be hosted at the Agence de l'Eau Seine-Normandie (Seine-Normandy Water Agency) based at 51 rue Salvador Allende, 92027 Nanterre, in the Paris region of France. The hosting arrangement continues to provide IWRA with a fully serviced office space and access to IT and printing services. The main email address remains office@iwra.org and the main office telephone number is +33-1-41-20-16-28.

The Executive Director continued to be **Callum Clench**, supported by Project Officer **Alice Colson** and Communications Officer **Ignacio Deregibus**. All three people are engaged to work with IWRA on a consultancy basis, working both in Nanterre and remotely. In addition, two additional people were hired by IWRA in 2018. These were Heather Bond from Canada and Stephanie Kuisma from Australia.

Heather Bond had transitioned at the very end of 2017 from an Intern position to a fixed-term contract as a Junior Project Officer, focussing mainly on the Water Quality Project sponsored by the World Water Council (WWC), building on the project initiated with a separate grant from ONEMA as well as providing support to the Smart Water Management Project. At the conclusion of these projects, Heather left the Association at the end of October.

Stephanie Kuisma was hired at the end of 2017 on a fixed-term consultancy basis as a Special Project Officer to deliver the Smart Water Management (SWM) project, funded by K-water. The objective of this project was to examine case studies from around the world that demonstrate the potential of adopting smart technology into water resource management in both developed and developing parts of the world, and in both urban and rural settings.

James Nickum continued as Editor-in-Chief, but Raya Stephan replaced Philippus Wester in January as Deputy Editor-in-Chief of IWRA's flagship publication, Water International. Other individuals were retained to support publications/media on a consultancy basis. These included Nick Griffin who continued as editor of the IWRA Policy Briefs; Scott McKenzie who manages webinars; and Nathalie Lyon-Caen who provides graphic design for reports and the IWRA website. Finally, Sergio Vallejo manages the World Water Congress archives, and managed the membership space on the website, until IWRA undertook a transition to a new platform.



BOARD OF DIRECTORS

The Board of Directors was renewed at the end of 2018. The Executive Office followed the mandated steps set out in its by-laws to implement the elections process: starting in February, with the appointment of a Election Committee and the announcement to IWRA Membership of the nomination process. By April, all nominations were received, and in July the list of eligible nominated candidates was published in the IWRA newsletter, on the website and via social media. In October, the ballot was circulated to members by the Executive Director, and the election process was launched on November 1st. Polling was closed at the end of November, and the elections results were published in Water International, the IWRA newsletter, on our website and via social media in December.

MEETINGS

The Board of Directors held a total of 4 meetings in 2018, all of which were teleconference meetings except for the first meeting, which was partly held face-to-face in Brasilia, during the 8th World Water Forum in March 2018.

COMMITTEES

There were five Director-led committees in 2018, including:

Awards Committee:

By virtue of its function of jury for the Congress Awards, this committee did not meet in 2018, but will be reactivated in 2019 with a new team for the XVII Congress.

Membership Committee:

This committee reviewed in particular how IWRA would engage with other organisations on membership,

The new IWRA Executive Board starts its new term on January the 1st, 2019. The 2019-2021 Executive Board is listed below:

President

Gabriel Eckstein, United States of America

Past President

Patrick Lavarde, France

Vice-Presidents

Blanca Jiménez-Cisneros, Mexico Karin Krchnak, Slovakia Yuanyuan Li, People's Republic of China

Secretary General

Guy Fradin, France

Treasurer

Renée Martin-Nagle, United States of America

Committee Chairs

Awards Rabi Mohtar, Lebanon

*Membership*Tom Soo, Australia

*Publications*Henning Bjornlund, Australia

Directors

Asma Bachikh, Morocco
Guillermo Donoso, Chile
Jun-Haeng Heo, Republic of Korea
Farda Imanov, Azerbaijan
Gary Jones, Australia
Yoonjin Kim, Republic of Korea
Birgitta Liss Lymer, Sweden
David Molden, Nepal
Raya Marina Stephan, Palestine
Mingna Wang, People's Republic of China

offering discounted group membership options, and extended membership agreements.

Finance Committee:

This committee oversaw the transition to a new accounting company to provide better service and reports that are more in-line with US accounting standards for the purposes of tax filing.

Scientific, Technical & Publications Committee:

Advised and made proposals regarding scientific and technical activities and publications, keeping all the publications and the publications' policy of the Association under review, including technical standards of Water International. The Committee also had oversight over the IWRA Task Forces and Interest Groups organized around a substantive research area (such as water quality and smart water management).

Governance Committee:

Established in 2017 to streamline decision making processes in the intervals between meetings of the Executive Board, focusing on for issues that do not require full Board approval, or for certain timesensitive issues where the Board has given the Governance Committee permission to act.

Constitution Review committee:

Set up to update IWRA's Constitution/By-Laws to make them complaint with law in the State of Wisconsin, where IWRA is registered. Their work was completed at the end of 2017 so the committee did not meet in 2018.

The Executive Office provides support to these committees where necessary. In 2018 the committee members were:

	Chair	Members
Awards	James Nickum	Asit Biswas, Bruce Currie-Alder, Malin Falkenmark,
		David Molden, Takahasi Yutaka
Membership	Gary Jones	Carl Bruch, Naim Haie, Jun-Haeng Heo, Yuanyuan Li
Scientific, Technical &	Henning Bjornlund	Guillermo Donoso, James Nickum, Raya Marina
Publications		Stephan, Philippus Wester
Constitution	Doğan Altinbilek	Lilian del Castillo-Laborde, Guy Fradin, Renée
		Martin-Nagle
Finance	Guy Fradin	France
Trésorière	Renée Martin-Nagle	Gary Jones
Governance	Patrick Lavarde	Guy Fradin, Renée Martin-Nagle

WORLD WATER CONGRESSES

XVII WORLD WATER CONGRESS

Following an open call for hosts for the XVII World Water Congress, an agreement was reached, and it was formally announced at the Closing Ceremony that the XVII World Water Congress would take place in Daegu, Korea. After a further MoU was signed between the Korean co-host institutions (KWRA, MOLIT, Daegu Metropolitan City and K-water), the date Finally, IWRA Executive Office and Board members will for the congress was set to be May 11th-15th, 2020.

The main theme of the XVII Congress will be on "Foundations for Global Water Security and Resilience: Knowledge, Technology and Policy". Regarding the congress program, it will be structured according to five thematic topics and three cross-cutting issues.

The International Scientific Committee (ISC) for the XVII Congress is composed of 32 members, 6 of them are part of the ISC Bureau and IWRA's Board Director, Gary Jones, acts as the Chair of this Committee. The ISC is responsible for content of the XVII Congress XVIII WORLD WATER CONGRESS including the development of its thematic framework, congress programme, call and selection of abstract presentations, posters, special sessions and sideevents, plenary sessions and speakers for high-level panels, etc.

The ISC Bureau consisting of 3 members appointed by ISC and 3 members appointed by the National Organising Committee (NOC), is responsible for preparing and executing the decisions of the ISC. Furthermore, the NOC is constituted by 20 members, represented by all Korean nationals from different universities, foundations, institutes, organisations, etc. of this country involved in water related issues.

IWRA Board Director, Jun-Haeng Heo, is the Chair of the NOC, which organises locally this event from both the logistical and administrative sides. Another working body set up is the Congress Secretariat, which executes the decisions from the ISC and supports the NOC's work based in the City of Daegu.

also be organising the Ven Te Chow Plenary Lecture, the Awards Ceremony and IWRA's General Assembly to take place during the XVII Congress.

It is the first time that World Water Congress will be held in East Asia. Its main objective is to provide an ideal platform for researchers, professionals, experts, policy-makers, students, and stakeholders to exchange ideas, present new knowledge and learn from each other in the field of water policy and sciences around

At the end of 2018, the call for expressions of interest to host the XVIII World Water Congress was launched. Initial applications are required by the end of April 2019, consisting of a two-page letter confirming interest. This is followed by an invitation to submit full applications by the middle of 2019. The XVIII World Water Congress may take place in either 2022 or 2023.





MEMBRES DE L'IWRA MEMBRES DE L'IWRA

IWRA MEMBERSHIP

NEW MEMBERSHIP SPACE ON THE IWRA WEBSITE

A significant transition was made in 2018 by IWRA in order to improve the member experience: the old membership platform was replaced by a cloud-based platform for specifically designed for associations and non-profit organisations, hosted by Raklet. This new membership platform is called "IWRA Community". In addition to the tools already available on IWRA's old member space, such as access to Water International, management of memberships and profiles, voting in IWRA elections, members now also have access new features, including:

- New improved networking functions to better connect with other professionals, experts, organisations, institutions, etc. sending private messages or starting discussions when desired.
- News feed with up-to-date announcements keeping you posted on new publications (Water International, Policy Briefs, project reports, etc.), upcoming events and webinars, calls for abstracts / papers / project proposals, etc.
- · Posting and searching for professional opportunities, services and calls for contributions from across the IWRA Community.
- · Payments are now possible by credit card to renew memberships and make donations to the Association.
- Improved communications (log-in with Facebook, LinkedIn or Google accounts, SMS messages to members, future registration to events, etc.)
- Welcome message clearly explaining all your benefits membership and options to engage with IWRA.

MEMBERSHIP RETENTION

IWRA membership by the end of the year stood at approximately 500 fully paid individuals. This was a reduction from the year before when numbers swelled attendees to the XVI World Water Congress becoming TASK FORCES automatic members of IWRA for one year, but the majority of these gift memberships were not renewed. It is hoped that current figures should increase with the new membership platform now in place, making becoming a member easier than before.

The Association actively communicated and shared knowledge with members, partners and influencers (e.g. UN Water, Taylor & Francis, K-Water, World Water Council, etc.). It worked regularly to retain current members and attract new ones, with dedicated communication campaigns and stands at international events focusing on membership benefits.

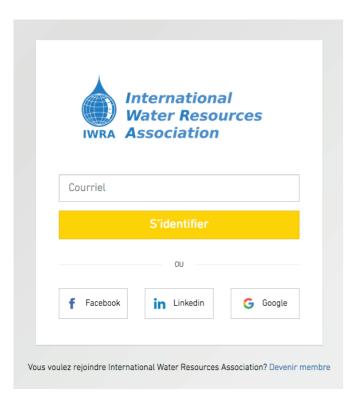
For example, The Association reached out to more than 10,000 people (including members, partners and supporters) through nearly numerous email campaigns, with 146,794 successful email deliveries.

GENERAL DATA PROTECTION REGULATION (GDPR)

IWRA has made sure it complies with the prerequisites for protecting personal data being collected both from its members and the international water community (past members, partners and supporters) as well as informing them on their rights and opt-in options. Despite this, there was a considerable rise in the number of email campaigns sent this year compared to 2017 (70 campaigns produced). Due to the EU's GDPR going into effect on May 25th, the number of

emails delivered in 2018 year was less than the 170,000 delivered in 2017. Each campaign in 2018 was opened by an average of around 35% of recipients.

The two member-led task forces set up in 2017 continued to offer IWRA members in 2018 the chance to interact on and support on-going projects focused on Smart Water Management as well as Water Quality. Both Task Forces had regular meetings over the year 2018, and were particularly active in contributing to the thematic projects and their reporting outputs. Members had to apply to be part of these Task Forces, and were required to participate in a minimum percentage of meetings to remain on the Task Forces moving forward.



GEOGRAPHICAL CHAPTERS

The IWRA currently has four formal chapters, in China, Oceania, Japan and India, as well as a student chapter at the University of Illinois.



CHINA

Chinese Ministry for Water Resources, and has an active membership of over 110 members, making it in 2018. the largest. A chapter-led webinar was held in 2018 and proposals for possible future seminars held between World Water Congresses in China are being discussed.

OCEANIA

This is the newest IWRA Chapter. Gary Jones from the Australian Water Partnership initially chaired it, but the management of the Chapter was transferred to Nicholas Schofield and then Gregory Lawrence Leslie, both at the University of New South Wales. The

Chapter has been set up under a new model of sharing The China Chapter is chaired by **Yuanyuan Li** at the revenues from membership in the region to support local activities. A webinar was held with this Chapter

OTHER CHAPTERS

The Japan and India Chapters have been continued to be largely quiet in 2017, despite outreach by the Executive Office. Discussions continue with CONAGUA about establishing a Latin American Chapter in Mexico, and also with the Korea Water Resources Association and K-water about re-establishing a national chapter in the Republic of Korea.

STRATEGIC PARTNERSHIPS AND COLLABORATIONS

In addition to working with our members, IWRA also has formed relationships with a number of other international organisations. These include:

AGENCE FRANCAISE POUR LA BIODIVERSITÉ (AFB)

The IWRA continues to welcome the grant given by the AfB (the French Agency for Biodiversity), formerly provided by ONEMA prior to changes in the French public sector. This grant supported IWRA's work to advance collective and inter-disciplinary understanding knowledge sharing to address the issues related to water resource management, particularly in relation to water quality and adaptation to climate change; the results will be used for the 9th World Water Forum on Water focusing on Water Security, for which IWRA has been appointed a strategic partner. This report serves as a summary of activities undertaken in 2018 in the spirit of this agreement.

KOREAN INSTITUTIONS

With the XVII World Water Congress taking place in the Republic of Korea in 2020, opportunities to collaborate with our Korean partners are already underway. These include:

- Signing an agreement with K-water in 2017 to undertake a joint project on Smart Water Management (SWM), with a case study that was published at the end of 2018.
- Supporting the Korea Water Forum in the World Water Challenge competition by serving on the judging panel during the Korea International Water Week (KIWW).
- Providing keynote speakers to the KIWW and its various side events.

- · Being active members of the Implementation Roadmap process that the Korea Water Forum has established to bridge actions between the 7th and 8th World Water Forum as champions for Water Quality, culminating in a final report issued at the World Water Forum in Brasilia.
- Participating in an international expert panel offering opinions on options for restructuring of public sector water resource management in the Republic of Korea.
- · Joining panels on Water and Green Growth organised by K-water at World Water Week.

Additional collaboration opportunities are expected with the other partners hosting the next Congress, namely Daegu Metropolitan City, the Ministry of Environment; and the Korea Water Resources Association (KWRA). Korean collaboration is expected to continue to grow between now and 2020, by which time IWRA aims to have a national Chapter established.

WORLD WATER COUNCIL (WWC)

The WWC has been a strong supporter of the IWRA in 2017 and 2018, including sponsoring and actively participating in the XVI World Water Congress, as well as funding further activity on water quality and continuing the work sponsored by the former ONEMA organisation, now under the AfB. The IWRA and the WWC have a long history, as the WWC was created as a result of the Cairo Statement that came out of the VII World Water Congress held in Cairo in 1996.

IWRA was also honoured to have been elected to join the Board of Governors (BoG) for the World Water Council (WWC) at elections held in Marseille on December 1st. IWRA is being represented on the board

STRATEGIC PARTNERSHIPS AND COLLABORATIONS

STRATEGIC PARTNERSHIPS AND COLLABORATIONS

by Vice President Yuanyuan Li (Governor) and Executive Director Callum Clench (Alternate). In addition, IWRA's President Patrick Lavarde has been nominated to become the co-President of the 9th World Water Forum planned to take place in Senegal in 2021.

IWRA also sits on the World Water Council's Integrated Water Resource Management (IWRM) Task Force. One of the aims is to try to identify examples of case studies and good practices that can be replicated to implement IWRM. This is also an opportunity to engage with the broader IWRA membership.

CHINESE INSTITUTIONS

Activity with China increased in 2018, including the following:

- IWRA's Executive Director Callum Clench joined other international water organisations and institutions to celebrate the 60th anniversary of the China Institute of Water Resources and Hydropower Research IWHR in October in Beijing, participating in round-table and panel discussions.
- Executive Director Callum Clench and Board Director James Nickum also participated in the International Symposium of Eco-Hydrology and Water Security:
 Opportunities & Challenges from Developing Countries, held in Xi'an City, in October, speaking on various panels. This conference was organised by the College of Urban and Environmental Sciences, Northwest University, and was sponsored by IWRA as well as WGRDC, IAHS, UNESCO-IHP, Northwest University, China National Committee for Panta Rhei, CAS, Wuhan University, Xi'an University of Technology and Hohai University.
- In collaboration with IWRA's China Chapter hosted by the General Institute of Hydropower and Water

Resources Planning and Design, in the Ministry of Water Resources, IWRA was proud to host a **webinar** on "China's Water Resources Management in the New Age" in December.

OECD – WATER GOVERNANCE INITIATIVE (WGI)

IWRA has been supporting the OECD's Water Governance Initiative, an international multistakeholder network of members from the public, private and non-for-profit sectors gathering twice a year to share good practices in support of better governance in the water sector. IWRA has been part of this initiative since almost the beginning, and in early 2018 supported the WGI through the publication of a Special Issue of *Water International* dedicated to this subject and the work being undertaken in the WGI, followed by a dedicated IWRA webinar on WGI held in October. IWRA sits in the working groups for indicators and best practice. IWRA attended meetings in Zaragoza in November.

UNESCO – I-WSSM

The UNESCO International Centre for Water Security and Sustainable Management (UNESCO- i-WSSM), founded in June 2017, organised a session on Urban Resilience & Smart Utility Network at the 2018 Smart Water Grid Conference Program on the 12th of November in Incheon, Republic of Korea. IWRA participated in this conference with Board Director James Nickum presenting an overview of the just published Smart Water Management Case Study Report.

This event was followed by a strategic planning workshop held in Seoul attended by IWRA Executive Director Callum Clench in December. The aim of the

workshop was to help inform and further develop i-WSSM's strategy for the coming years. With the latest special issue of *Water International* being dedicated to Water Security, and the official theme of the XVII World Water Congress theme now agreed to also be linked to Water Security, the opportunities for closer collaboration with i-WSSM are increasing, and we look forward to continuing to work with them in the coming years.

UN-WATER

IWRA is a partner of UN-Water. IWRA participated in UN Water's "The Pipe" meetings focussed on communication around water issues, as well as UN-Water's face-to-face meetings in Rome in February, and in August in Stockholm, before World Water Week.

IWRA also supported both the UN Water Day with a dedicated webinar in 2018 held on World Water Day on the theme of "Nature for Water". This webinar highlighted the many reasons for deepening our understanding on the relationship between water and nature. Tying together the economic value provided by natural infrastructure with human values, such as water for domestic consumption, the panel was able to question some of the ways that many water projects and governance have overlooked natural based solutions for urban, agriculture, or source water concerns.

ASIA WATER COUNCIL (AWC)

IWRA is an active member of the AWC after joining the AWC general assembly in Gyeongju, during the Korea International Water Week (KIWW) held September 2017. Since then, IWRA applied to be Board Member of AWC in order to strengthen synergies between the two organisations toward the XVII World water Congress:

the results of their elections will be announced in March 2019 during their next General Assembly in Manila, Philippines.

SOURCE TO SEA (S2S)

Under the leadership of the Stockholm International Water Institute (SIWI), IWRA is an active partner in the steering committee of this multi-stakeholder initiative that helps freshwater, coastal and marine experts to contribute to global knowledge generation on source-to-sea interconnections, connect and engage in collaborative projects, promote best practices, and take collaborative action to improve the management of land, water, coastal and marine linkages.

WATER-ENERGY-FOOD (WEF) NEXUS TASK FORCE

Rabi Mohtar from Texas A&M is leading a task force on the WEF Nexus. Following a Special Issue of *Water International* released in 2016, IWRA continues to support this Task Force, including participating in a special session at the 8th World Water Forum in Brasilia.

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PUBLICATIONS AND WEBINARS

WATER INTERNATIONAL

In 2018, eight issues of *Water International* were produced, including 5 special issues and a special section that was a follow-on special section to a former special issue. The special issue topics were:

- The OECD Principles on Water Governance: From Policy Standards to Practice; January (43.1) Aziza Akhmouch et al., eds. (OECD)
- Climate Change and Adaptive Water Management: Innovative Solutions from the Global South; February (43.2) Charlotte MacAlister and Nidhi Subramanyam, eds. (IDRC)
- Wicked Problems of Water Quality Governance;
 April (43.3) Henning Bjornlund et al., eds. (IWRA)
- Transboundary River Cooperation: Actors, Strategies and Impact; (Part II) July (43.5) Selina Ho, ed.
- Virtual Water: Its Implications on Agriculture and Trade; August (43.6) Chittaranjan Ray et al., eds. (OECD support)
- *The Global Water Security Challenge*; November (43.8) Christopher Scott and Chad Staddon, eds.

The latest Web of Science impact factor for *Water International* showed an increased from 1.538 in 2017 to 1.956 in 2018. This reflects the hard work and dedication of the Editorial team led by James Nickum and Raya Stephan. Without their efforts, it would be impossible to deliver such a high quality publication.

IWRA POLICY BRIEFS

Policy Brief documents are generally based on a special issue of Water International, but in 2018 IWRA created a new series of IWRA Policy Briefs, also known as the "Green Series", which are published in association with

key partners. The first two published in 2018 were:

- IWRA Policy Briefs n° 1:
 How Private Land Matters in Flood Risk Management.
- IWRA Policy Briefs n° 2: Multi-stakeholder Dialogue: Water-Energy-Food (WEF) Nexus and Implementing the SDGs.





Two new policy briefs were also produced in relation to special issues of our journal. These were:

- Water International Policy Briefs n° 9:
 Sustainable Groundwater Development for Improved Livelihoods in Sub-Saharan Africa.
- Water International Policy Brief n°10:
 China's Upstream Dilemma: A Catalyst for Transboundary Cooperation?



IWRA UPDATE

The quarterly newsletter *IWRA Update* was produced for IWRA members and partners. All four newsletters are available online and were distributed via email campaigns to IWRA's General List and promoted on social media channels, mainly Twitter and Facebook. Members were invited to contribute with news, activities and publications through open calls. The format of the newsletter has continued to evolve and is now produced entirely online.

IWRA WEBINARS

2018 was particularly productive for IWRA as webinars were held on 7 different topics. These were based on selected special issues of Water International as well as main events aligned with the international development agendas. Geographic Chapters have also started to organize their own webinars on issues specific to their areas. One webinar was built on one IWRA's Policy Brief (green series) published in association with key partners. The seven webinars were:

- Webinar n°12 : *Water Governance Principles* 15 February 2018
- Webinar n°13: World Water Day 2018 'Nature for Water' - 22 March 2018
- Webinar n°14: Climate Change & Adaptive Water Management – 19 April 2018
- Webinar n°15: How Private Land Matters in Flood Risk Management - 20 June 2018
- Webinar n°16 : *Water Challenges of Oceania: Today to 2025* 22 August 2018
- Webinar n°17: Wicked Problems of Water Quality
 Governance 31 October 2018

Webinar n°18: China's Water Resources
 Management in the New Age – 11 December 2018

In total, more than 845 free registrations were made to join these seven webinars throughout the year, with an average attendance rate 41%. All webinars were recorded in high resolution and are published on IWRA's website and YouTube channel. All IWRA webinars are now formatted and have been placed online.

MEDIA COVERAGE

Media activity is a means to promote IWRA's work and activities. In 2018 we focused on social media channels.



IWRA has expanded its **Twitter** following to over **6,600 people**, making more than 1,200 tweets overall and a total of 34,400 impressions over the last 6-month period. June 2018 had the most number of impressions with 51.400 views. These numbers continue to increase monthly, tweeting at least once or twice a day.



On Facebook, IWRA has gained more than 10,000 followers (25% women, 75% men; 65% 25-34 years old, 18% 18-24 years old), over 10,000 likes, posted more than 90 times. IWRA will continue to post similarly at least once or twice a week in 2019.





WEBSITE

IWRA's website was transitioned in 2017 to WordPress at IWRA's 2017 General Assembly Meeting in Cancun in June. Since then, regular improvements to the website have been carried out. Over the year, IWRA's website received over 155,000 visitors and more than 370,000 visits. The most visited webpages included the Homepage (+250,000 visits), Executive Board page (+7,000) and Smart Water Management

(+5,000). Facebook, Google and Baidu were the top

referring sites or most used search engine referrals.

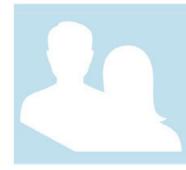


IWRA Association

HOME ABOUT US MEMBERS WORLD WATER CONGRESSES PUBLICATIONS & LIBRARY PROJECTS EVENTS

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BECOME AN IWRA MEMBER!

IWRA is an international network of multidisciplinary experts on water resources. We are a non-profit, non-governmental, educational organisation established in 1971. IWRA provides a global, knowledge based forum for bridging disciplines and geographies by connecting professionals, students, individuals, corporations and institutions who are concerned with the sustainable use of the world's water resources.

PROJECTS

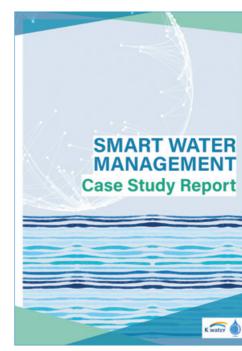
In 2018 IWRA expanded its funded project portfolio, with two reports produced in the 2018 – one on Smart Water Management and one on Water Quality. These projects helped IWRA to engage better on specific issues with our partners/members, and to draw on the knowledge and expertise that exists within IWRA. This approach reinforces our mission to improve and expand the understanding of water issues through education, research and information exchange, and to continually improve water resource decision-making by improving our collective understanding of the physical, ecological, chemical, institutional, social, and economic aspects of water.

To support these projects, two IWRA Task Forces were set up, one for each project. It is planned to initiate one or two more Task Forces in 2019 following the success of the current ones.

SMART WATER MANAGEMENT (SWM)

Following a special session held at the XVI World Water Congress on Smart Water Management (SWM), IWRA and K-water formally decided to publish a joint report with the objectives to:

- Showcase exemplary SWM cases from around the world.
- Provide insights into the benefits of SWM technologies for current water challenges.
- Provide policy recommendations to facilitate the development and uptake of smart water solutions.
- Share the enablers and barriers for SWM implementation.
- Identify the contribution SWM can offer in achieving the SDGs.





IWRA published the Smart Water Management (SWM) **Case Study Report** in collaboration with K-water. This report showcases 10 SWM case studies from around the world, and 9 upcoming SWM projects from both developed and developing countries, to demonstrate the potential for SWM in both developed and developing countries. The report provides an in-depth look at how these SWM projects were implemented, the enabling factors and potential barriers faced, and how SWM can assist with achieving the Sustainable

PARTICIPATION IN EXTERNAL EVENTS

report looks at the potential for SWM replication and scalability, and provides policy recommendations to assist decision-makers with supporting future SWM implementation.

WATER QUALITY

IWRA has a long history of working on the issue of water quality: it is a key thematic area both in its dedicated projects and in international processes and events.

> Developing a Global Compendium on Water Quality Guidelines

Development Goals. Based on cross-case analysis, the For instance, IWRA was the Thematic Champion for Theme 3.3 "Ensuring Water Quality from Ridge to Reef" in the Implementation Roadmap set out for the 7th World Water Forum in 2015, and supported the coordination of monitoring and reporting around the 5 goals and specifically worked on the delivery of goal 3.3.a. With this background and expertise in water quality, IWRA continued as the topic lead for water quality under the Ecosystems Theme for the 8th World Water Forum in Brasilia, Brazil, in 2018.

> In 2018, IWRA also release of another new report on "Developing a Global Compendium on Water Quality Guidelines" in collaboration with the World Water Council and ONEMA. This report collects and examines examples of existing recommendations for influent water quality, as applied to various human and ecosystem uses. It provides examples and analysis of existing water quality guidelines. Building on these case studies, the report explores new perspectives, and raises pertinent questions for future work on the topic, including what an online compendium of such guidelines might look like. This report's primary objective is to lay the groundwork for an online compendium to improve access to examples of water quality guidelines and facilitate a better understanding of how water quality demand and supply can contribute to appropriate and economical multi-sectorial water resource management.

2018 KOREA INTERNATIONAL WATER WEEK (KIWW) & WORLD WATER CITIES FORUM



This year, IWRA had a strong presence at KIWW 2018 with seven Board members and four Executive Office Staff in attendance, including IWRA's President, Patrick Lavarde, and its Executive Director, Callum Clench. Both IWRA representatives and staff participated at KIWW events, as well as many preparatory meetings for the next XVII World Water Congress, planned to take place in Daegu from May 11th-15th, 2020. This included:

- IWRA Executive Director, Callum Clench, sat on the panel discussion in the Opening Ceremony to outline the week's content of activities, and was a judge for the World Water Challenge.
- Keynote speeches were given by IWRA representatives throughout the week, including Gabriel Eckstein (former ISC Chair, XVI World Water Congress) who was also invited by the Ministry of Foreign Affairs to speak at the Korea International Water Industry Conference held in Seoul on September 10th,

immediately prior to KIWW, and also by the Ministry of Environment to speak at the Integrated Water Resources Management Policy Forum held during KIWW in Daegu.

- · IWRA President Patrick Lavarde gave a keynote address to the parallel World Water Cities Forum and gave an address at the KIWW closing ceremony.
- · Board member and current ISC Chair Gary Jones gave presentations at the World Water Cities Forum and Water Industry Forum.
- Water International Editor-in-Chief, James Nickum, and Chair of the IWRA Scientific, Technical & Publications Committee, Henning Bjornlund, also spoke in IWRAled sessions to promote and further our work on Smart Water Management (organised by Stephanie Kuisma) and Water Quality (organised by Heather Bond).

SIWI WORLD WATER WEEK (WWW)

Executive Director and the Special Project officer Stephanie Kuisma went to Stockholm to attend the World Water Week. Stephanie Kuisma presented on the Smart Water Management (SWM) project on August 30th in a highly interactive session jointly hosted by K-water, Xylem, IVL, IWA and SIAAP. The session involved real-time audience participation using the online platform Mentimeter, which facilitated the discussion on how to define SWM, the current barriers to SWM implementation, how trustworthy smart data is, how SWM can help to achieve the SDGs, along with the audience providing their thoughts on the next best steps for SWM.

PARTICIPATION IN EXTERNAL EVENTS

EU COST LAND4FLOOD COMPENSATION MECHANISMS FOR FLOOD STORAGE REGIONAL WORKSHOP

Ignacio Deregibus from the IWRA's Executive Office joined international experts on behalf of the Association to participate within the COST Action "Natural Flood Retention on Private Land" (CA 16209) two-day workshop in October in Austria. The purpose of the workshop was to explore compensation mechanisms for flood storage. In the course of two study sites the workshop participants engaged in stakeholder dialogues with municipal representatives, landowners and other local actors to discuss options and limitations for providing land for flood storage and for developing compensation models based on the beneficiary principle.

INTERNATIONAL SYMPOSIUM OF ECO-HYDROLOGY AND WATER SECURITY: OPPORTUNITIES & CHALLENGES FROM DEVELOPING COUNTRIES 16-18 OCTOBER, XI'AN CITY, SHAANXI PROVINCE, CHINA



To strengthen water security and eco-water issues for developing countries with a focus on eco-hydrology and integrated water resources management, IWRA's Past President Prof. Jun Xia, also member of Chinese Academy of Sciences (CAS) and Chair of the Working Group on Representation of Developing Countries (WGRDC) for IAHS, successfully collaborated with other international organisations and associations,

including IWRA, during this event. This conference was organised by the College of Urban and Environmental Sciences, Northwest University, and was sponsored by IWRA as well as WGRDC, IAHS, UNESCO-IHP, Northwest University, China National Committee for Panta Rhei, CAS, Wuhan University, Xi'an University of Technology and Hohai University. Prof. Jun Xia together with IWRA's Executive Director Callum Clench as well as Board Director and Editor-in-Chief James Nickum, participated as speakers in this event, along with other distinguished invitees. Altogether there were more than 150 participants coming from 18 countries.

CHINA INSTITUTE OF WATER RESOURCES AND HYDROPOWER RESEARCH (IWHR) 60TH ANNIVERSARY



While visiting China, IWRA's Executive Director Callum Clench also joined other international water organisations and institutions to celebrate the 60th anniversary of IWHR. There was numerous sessions including a Round-Table Meeting of Leaders of Water-Related International Organizations attended by the likes of the World Water Council, the International Commission on Large Dams, the International Association for Hydro-Environment Engineering

and Research, the Global Water Partnership, the International Commission on Irrigation and Drainage, the World Association for Sedimentation and Erosion Research, the World Association of Soil and Water Conservation, and the International Hydropower Association. During their six decades of development, IWHR has always remembered its missions and worked hard on water resources and hydropower research, to ultimately pursue prosperity of the citizens.

UNESCO I-WSSM WORKSHOPS - KOREA



The UNESCO International Centre for Water Security and Sustainable Management (UNESCO- i-WSSM), founded in June 2017, organised a session on Urban Resilience & Smart Utility Network at the 2018 Smart Water Grid Conference Program in Incheon, Republic of Korea. Representing IWRA, Board Director James Nickum presented an overview of the recently published Smart Water Management Case Study Report, providing some suggestions on lessons from that report and papers published In Water International for large African cities that could be included in a prospective second phase collaboration with K-Water.

This workshop was followed by another strategic planning workshop held in Seoul attended by IWRA Executive Director Callum Clench in December. The aim of the workshop was to help inform and further develop i-WSSM's strategy for the coming years. With the latest special issue of Water International being dedicated to Water Security, and the official theme of the XVII World Water Congress theme now agreed to also be linked to Water Security, the opportunities for closer collaboration with i-WSSM are increasing, and we look forward to continuing to work with them in the coming years.

WORLD WATER QUALITY ASSESSMENT MEETING - GENEVA, SWITZERLAND

Alice Colson from the IWRA's Executive Office attended the World Water Quality Assessment (WWQA) Inception Workshop on behalf of the Association. This meeting was hosted by the World Meteorological Organisation, WMO, in Geneva, together with UN Environment in November. Recognising the need for a thorough baseline appraisal of water quality in both surface and ground waters, the WWQA aims at leading a baseline assessment of water quality in surface water bodies around the world, as well as doing scenario analysis of future pathways of water quality in the freshwater system, and be a matrix that classifies the available mitigations options. This workshop was the opportunity to review the consortium's statements as the input for the collective future work plan development and defining roles and engagement. The IWRA Task Force of Experts on Water Quality will provide support to the consortium in the future.

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