



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Hydrological
Programme



What's new and impactful from the water family

Message from the Secretary a.i. of IHP

Dear Members of the UNESCO Water Family, Colleagues, Readers,

I am pleased to present our new monthly e-newsletter, the H₂O Update of the UNESCO Water Family. I think that it is now more important than ever for the Family to stay connected and to dispose of avenues for a stronger involvement of all members in the Intergovernmental Hydrological Programme. Your contributions to and positive feedback on the first H₂O issue show our resilience and our ability to find innovative mechanisms as a Family, for the achievement of our shared goals. I thank you all and I am proud of what we have been able to achieve together, despite the challenges of the global pandemic.

We are aware of the time constraints and the many demands for your attention, so we offer very brief summaries of each activity with the option for more in-depth information via a hyperlink. We also provide the contact information under each activity and encourage you to get in touch directly with your colleagues, if you are interested in working with each other.

As you know, this is an important time for our Water Family. We are preparing the strategy for IHP's forthcoming ninth phase (IHP-IX 2022-2029), to which we dedicated the 2nd Extraordinary session of the IHP Council (30 November 1 December 2020), while continuing to implement IHP-VIII. The Secretariat is committed to deliver, and highly appreciates your continued support. Beyond sharing information on the activities in the Water Family, we hope this Newsletter may inspire new partnerships among the members.

Thank you for your continued cooperation and partnership.

Warm regards,

Abou AMANI

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NEPAD African Network of Centres of Excellence on Water Sciences and Technology

On 3-4 November 2020, following almost four years of implementation in Africa, the End of Project virtual meeting was held to discuss the Scientific (SC) and Human Capacity Development (HCD), the New Partnership for Africa's Development (NEPAD) project results and impact for Africa's Water Sector. The 50 participants included representatives from the African Union, African Union Development Agency (AUDA-NEPAD) and the African Ministers' Council on Water (AMCOW) Secretariat, the AUDA-NEPAD Network of Water Centres of Excellence in West, Southern and Central East Africa, European Commission representatives from the Directorate-General for International Cooperation and Development (DG DEVCO) and the Joint Research Centre and the UNESCO IHP and UNESCO project coordination. In addition to project results, discussions included adapting project activities to the COVID-19 Pandemic and future activities for SC, HCD and African Partners such as the movement and exchange of skills and knowledge between countries and regions for building a stronger African water sector. For more information, please see the short-animated video:

https://www.youtube.com/watch?v=HjHbabbh8OEU&feature=emb_logo or visit the project web page at: <https://en.unesco.org/fieldoffice/brussels/eu-partnership/science/acewater>

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Water Resources Assessment for the Transitional Zone of Jebel Al Dair Biosphere Reserve

From August until November 2020, the UNESCO Khartoum Office in partnership with Regional UNESCO Category 2 Center for Research and Capacity Development in Water Harvesting implemented a project on Water Resources Assessment for the Transitional Zone of Jebel Al Dair Biosphere Reserve. It aims at strengthening the conservation of Jebel Al Dair Biosphere Reserve in Sudan, through accounting for the water

resources, demand for water and proposing interventions for matching increasing water demand, that could lead to less dependence on the Biosphere Reserve endangered resources. A field visit was conducted in October-November and the final report is expected by 30 November 2020.

For more details, consult the following link: <http://unesco-rcwh.sd/en/>

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Development of Community Based Management for Sustainable Water Harvesting Facilities in Rural Areas of Sudan

In November 2020, the UNESCO Khartoum Office in partnership with the Regional UNESCO Category 2 Center for Research and Capacity Development in Water Harvesting completed the project "Development of Community Based Management for Sustainable Water Harvesting Facilities in Rural Areas of Sudan". The focus of the project included the Institutional and Technical Systems adopted in Managing Water Harvesting Infrastructure; Policy and Legal Provisions for the Management of Rural Water Infrastructure; Water Pricing and Tariff Setting; the Documentation of Water Harvesting Best Practices and the Development of Best Operation & Maintenance Scenarios. A scientific paper is under preparation for publication.

For more details, consult the following link: <http://unesco-rcwh.sd/en/>

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Safeguarding World and Sudanese Archaeological Sites from the impact of recent floods in Sudan

In November 2020, the UNESCO Khartoum Office supported by Heritage Emergency Fund implemented a part of the project "Safeguarding World

and Sudanese Archaeological Sites from the impact of recent floods in Sudan". According to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) update on Sudan, on the 1 October 2020, Sudan experienced its worst floods in decades. Many World Heritage and Sudanese heritage sites, in addition to archaeological sites have been impacted by the disastrous floods, in addition to archaeological sites particularly threatened by rising groundwater and river morphology changes. Thus, UNESCO organized a team of water, archaeology and media expertise led by an International expert to assess the damages and to propose interventions and budget estimations to address. Three expert meetings were organized to develop the capacities of national stakeholders. A report is expected by December 2020 that will define interventions for protecting threatened archaeological sites.

For more details consult the following link:
<https://en.unesco.org/themes/protecting-our-heritage-and-fostering-creativity/emergencyfund2>

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Harmonization of legal frameworks in water resources management in Latin America – 3-4 November 2020

One of the most important challenges of integrated water resource management, as set out in Target 6.5. of the Sustainable Development Goals (SDG), is the permanent adaptation of its regulatory and institutional framework to this approach, and mainly to the evolution of scientific and technological knowledge and the changes in the activities carried out in the territory, as reflected in hydrological planning at different scales depending on the country. A webinar was organized on 3 November 2020 to explore these issues. This web seminar had the following objectives:

- To carry out a first conceptual analysis on the most important aspects for revising and updating the regulatory framework in terms of IWRM
- To review, together with the webinar participants, the starting situation of the different countries of the Conference of Ibero-American Water Directors (CODIA) in terms of the harmonization of legal frameworks with an integrated water resources management approach in the light of SDG 6.5 (main difficulties encountered and good practices).

For more details, consult the following link:

<https://events.unesco.org/event?id=2284266994&lang=1033>

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Water, gender and climate in Latin America and the Caribbean: better data for improved adaptation strategies – 24 November 2020

Since 2014, UNESCO and WWAP have been working to promote gender equality and the empowerment of women in the water sector. For this purpose, a set of tools for the collection and analysis of data on water and gender has been developed, which includes an innovative methodology and a set of indicators for the collection and analysis of data disaggregated by sex. The second edition launched in 2019 includes 105 gender-sensitive indicators in 10 priority themes aligned to the SDGs and aims to address the information gap on water and gender, which is currently a major obstacle to the production of scientific evidence on the gender situation in the sector. The WWAP Gender and Water Indicators

Toolkit is thus a tool designed for decision makers to support the process of evidence-based water policy making that can address gender equity in the sector. Complying with the current restrictions of COVID-19, the capacity building programme for LAC started in 2020 with the launch of the WWAP Toolkit in the webinar mode, convening authorities and government representatives, and continuing in 2021 with regular training in person and/or through video conferences, depending on the restrictions due to the pandemic.

For more details, consult the following link:
<https://events.unesco.org/event?id=496267903&lang=1033>.

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Virtual Pre-Congress: Illrd Ibero-American Congress on Sediments and Ecology – 25 November 2020

The UNESCO International Sediment Initiative (ISI) addresses both the quantity and quality of sediments, taking into account global change. In this context, the ISI for Latin America and the Caribbean (ISI-LAC) and the Mexican Institute of Water Technology (IMTA) organized the Illrd Ibero-American Congress on Sediments and Ecology (III CISE) – Virtual on 25 November.

For more details consult the following link:

<https://events.unesco.org/event?id=246422219&lang=1033>.

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Water and Climate Change: Women's Coping Strategies in Small Island Developing States

UNESCO conducted a high-level webinar on 27 November, addressing how the integration of gender perspectives in water resources management contributes to reinforcing social inclusion, eradicating poverty and moving towards environmental sustainability. Issues including the limited availability of gender-disaggregated data were discussed as a major obstacle in generating knowledge about gender differences and gaps related to water resources, and in the formulation of evidence-based policies. During the year 2021, UNESCO plans to conduct a training programme introducing the main concepts of gender equality and facilitate the empowerment of women in the management of water resources in the Pacific.

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UNESCO Water Family: Cooperation in Education and Science in Central Asia

On 24 November, during the Silk Road of Knowledge online conference held from 25-27 November 2020, a pre-conference online event on "UNESCO Water Family: Cooperation in Education and Science in Central Asia" was organized by the German-Kazakh University in partnership with UNESCO Office in Almaty. The UNESCO water-related centres, chairs and committees who work in the area of sustainable management of water resources in Central Asia, discussed their experiences and challenges in conducting their activities, notably during the COVID-19 pandemic, sharing lessons learnt on adapting their activities to the new reality. The meeting also facilitated discussion among the UNESCO Water Family in Central Asia on regional priorities for the

IHP-IX phase and aimed to bridge science and education gaps on water issues in Central Asia region.

For more details, consult the following link:

<http://en.unesco.kz/unesco-water-family-cooperation-in-education-and-science-in-central-asia>

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Restoring Dried Wetlands from Naturally Treated Urban Water

The UNESCO Chair in Water and Environment Management for Sustainable Cities at Sharif University of Technology, Tehran, Iran, recently has been granted a project on restoring high priority dried wetlands from naturally treated urban water, which is funded by the Iran Department of Environment. The combined impacts of decreased precipitation due to global warming and declined environmental flow as a result of anthropogenic activities have posed serious threats to the water resources in Iran. This situation has remarkably degraded the wetlands across the country, where 55% of surface area in 45% of wetlands has dried over the past two decades. This, in turn, has led to the intensified aerosol concentration in the nearby residential areas around the dried lakes. As such, this project aims to identify two wetlands with the most endangered condition, and design naturally treatment systems to restore the wetlands using treated urban water from the nearby cities.

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WAMU-NET launches new edition of the Youth Prize Contest “The Water We Want”

How can we inspire new perceptions about water and new ways to be more respectful of nature among younger generations? The 2nd Edition of the Youth Prize Contest “The Water We Want” was launched by the Global Network of Water Museums (WAMU-NET), a flagship initiative of IHP. The past edition engaged already several hundred students as narrators of liquid futures, thanks to the education activities implemented together with water museums worldwide and an online exhibition you can [visit here](#). The main video of the campaign is available on Vimeo (<https://vimeo.com/470298707>) and Facebook (<https://www.facebook.com/wamunet>).

Contact Person

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Online-Virtual ICL/IPL Conference

From 2-6 November 2020, the online conference of the International Consortium on Landslides (ICL) (Kyoto, Japan) hosted several events, among others the 16th Session of the Global Promotion Committee of the International Programme on Landslides (IPL), 20th Session of the Board of Representatives of the ICL, the IPL Symposium on Landslides, and the Launching Session of the Kyoto Landslide Commitment 2020 (KLC2020). The latter is the ICL voluntary commitment to the Sendai Framework for DRR 2015-2030 in the field of landslide disaster risk reduction. For more information, please visit: <https://icl.iplhq.org/>

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Youth for the Rhine: an initiative to inspire younger generations

“Youth for the Rhine” is a youth-led initiative to inspire younger generations across the Rhine Basin in addressing one of Europe’s major societal issues: climate adaptation and the diverse issues of water, food, and energy. Its objective is to connect young multidisciplinary professionals and students across boundaries and co-create ideas for sustainable environmental actions and climate adaptation. Youth for the Rhine will encompass the creation of an international multidisciplinary knowledge-sharing platform of young professionals, and the development of a bottom-up youth-driven strategy for climate adaptation. Leading partners are IHE Delft, Netherlands Committee for the IHP (UNESCO) and the Hydrology and Water Resources Programme (HRWP) of the World Meteorological Organization, Rijkswaterstaat and the Water Youth Network.

The UNESCO Chair SIMEV, was invited to join the initiative along with Technical Universities (TU) Cologne and Wageningen, is now an active member of pilot project committee proposing innovative solutions for the water quality/ reuse and for youth participation among its network.

For more details, consult the following link: <http://www.unesco-simev.org>

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IHE Delft and UNFCCC have signed an agreement to establish the Adaptation Academy

The Adaptation Academy is a network of organizations that support Professional short-term training on the Enhanced Transparency Framework of the Paris Agreement. The Adaptation Academy aims to enhance the ability of developing countries to conduct vulnerability and adaptation assessments, and then prepare and report the information resulting from such assessments and the implementation of national adaptation actions for national communications, biennial update reports, and biennial transparency reports under the formal measurement, reporting and verification arrangements of the Paris Agreement. All signatories to the Paris Agreement have agreed that to facilitate effective universal participation of all Parties in the enhanced transparency framework, climate change reporting support should be provided to developing countries which includes enhancement expertise and capacity-building of national experts. Partners in the Adaptation Academy are The United Nations Framework Convention on Climate Change (UNFCCC), IHE Delft Institute for Water Education (IHE Delft), Asia Institute of Technology (AIT) and Oregon State University (OSU) with the Alliance for Global Water Adaptation (AGWA) playing a facilitation role.

For more information please consult the following link:

<http://www.un-ihе.org/news/ihе-delft-and-unfccc-have-just-signed-collaboration-agreement-establish-adaptation-academy>

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New Seminar - Artificial Intelligence on Water Resources - IHE Delft

IHE Delft Alumni and Partners Online Seminars are designed as a means of providing lifelong learning to the Institute’s Alumni community and

Partners. Since the topics will be of interest to a broader audience, they are open to all interested persons. The Online Seminars are like interactive lectures transmitted over the web, with a duration of one hour including time for discussion. The seminar is organized in collaboration with IHE Delft partner TheWaterChannel. In November, two seminars were organized, Artificial Intelligence on Water Resources and Hydroinformatics applications in Machine Learning, trends and alumni experiences. They were held on 6 and 13 November. Please find below the information of the first webinar.

For more information: <https://www.un-ihe.org/artificial-intelligence-water-resources>

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Webinar: Expanding Support to Water Accounting in River Basins and Water Productivity Measurement in Irrigation Projects

The Asian Development Bank Water Sector Group, IHE Delft, and the International Water Management Institute (IWMI) conducted a two-part webinar on water accounting and water productivity analyses using remote sensing on 12 and 18 November, respectively. The two-part webinar described the concepts and methodologies, as well as present some of the results from the case studies and impacts on decision making.

For more details consult the following link: <http://www.un-ihe.org/news/webinars-expanding-support-water-accounting-river-basins-and-water-productivity-measurement>

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IHE's contribution to capacity development of the humanitarian WASH sector

Last year, leading organizations of humanitarian Water, Sanitation and Hygiene (WASH) programmes and projects have developed a long-term roadmap to address serious capacity gaps in the quality and quantity of professionals in the sector. To contribute to the overall strengthening and revitalization of the humanitarian WASH sector, UNICEF and IHE Delft have established a two-phase cooperation framework. This framework aims to develop four thematic pillars up to 2024 that are to be led by IHE in collaboration with various humanitarian WASH organizations. These pillars are: educational programmes; operational research; knowledge management and institutional capacity building. As a first concrete project between IHE Delft, UNICEF and other partner organizations, a joint Graduate Professional Diploma Programme (GPDP) in humanitarian WASH is being developed, to be offered at IHE Delft in 2021.

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On the United Nations' 75th Anniversary... why water science is vital for "The Future We Want"

The COVID-19 crisis puts in sharp focus the need for global cooperation, reminding us that in the face of common global challenges we must come together to share knowledge and develop collective solutions for the good

of society and our planet. This year marks the 75th anniversary of the United Nations and this week a high-level meeting of the UN General Assembly is being convened to reaffirm Member States collective commitment to multilateralism under the title, 'The Future We Want, the UN We Need'.

For more details about the article consult the following link: <https://www.birmingham.ac.uk/research/perspective/unesco-75th-anniversary.aspx>

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Address on Water Security

On 31 October, David Hannah gave an address at the Think20 (T20; <https://t20saudiarabia.org.sa/en/Pages/default.aspx>) on water security as part of the session on "Sustainable Resources Visions: The Energy, Food, Water Nexus". The virtual event was attended by more than 2,300 people from 122 countries. The T20 Summit gathers "world-leading thinkers, civil society organizations and international institutions to discuss the latest research-based policy recommendations and matters of global importance". It served as an interactive platform to advance and share ideas on building a more prosperous, sustainable and inclusive world. David's contribution was based on work <https://www.nature.com/articles/s41893-020-0593-7> with international collaborators. Key messages delivered in the address were: (1) Access to safe water is a basic human right that is not being met for large sections of the world's population. (2) Urgent action on water security is essential to better prepare societies for the future – including global health crises. (3) Across the world, policy makers need to focus on behavioural change, knowledge promotion and investment in water infrastructure. The T20 communique will be shared with G20 leaders for their consideration during the G20 Summit, which will take place in Riyadh in November 2020.

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Egyptian Irrigation Posts in some Nilotic Countries

The Regional Centre for Training and Water Studies (RCTWS, Cairo, Egypt) conducted Assessment and Interviews of the Egyptian Nominees for the vacancies of Technical and Administrative Egyptian Irrigation posts in Uganda, Sudan, South Sudan, and Permanent Joint Technical Committee for Nile Water.

For more details, consult the following: <https://www.facebook.com/rctws.org/photos/pcb.767916360426435/767915660426505>

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Regional Centre for Training and Water Studies discusses "June Momentum for Climate Change"

The Regional Centre for Training and Water Studies (RCTWS) represented by its chairperson as the official representative of Ministry of Water Resources and Irrigation (MWRI) in the Egyptian National Committee for Climate Change and member of the official Egyptian delegation team for Climate Change participated in the preparation meetings organized to discuss the outcomes of the Climate Change event

entitled "June Momentum for Climate Change" that provided a platform for engagement on a wide range of work being done under the UNFCCC. The objective was to set the way forward and modality for Egyptians to participate in the planned Online Dialogues which took place from 23 November to 4 December 2020

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Regional Centre for Training and Water Studies (RCTWS)

Regional Centre for Training and Water Studies (RCTWS) signed the agreement with UNESCO in 2001 and renewed it in 2015. RCTWS is currently preparing for the renewal process of its agreement as a UNESCO as Category 2 Centre and a member of water family. It is envisaged to convene a mission to review the institute by end of this year.

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Online training course on "Water security for resilience to deal with disasters and outbreaks"

The National Institute of Hydrology, Roorkee (India), under the aegis of the Indian National Committee for the IHP (INC-IHP) organized a 5-day virtual training course on "Water Security for resilience to deal with disasters and outbreaks", from 2-6 November. The course was specially designed for youths and young professionals qualified in hydrology, water resources, or related fields, and associated with water resources assessment and management. The course consisted of lectures supported by hands-on training, group exercises, and group presentations. It was attended by 37 participants from India, Nepal, Australia, and Thailand.

The training course aimed to: 1) introduce water security concepts, disasters/ outbreaks, and their related implications, and 2) to train the participants to perform a water security assessment and chalk out resilience strategies at different scales.

For more details consult the following link:

<https://drive.google.com/drive/folders/16keQ0TBxBiSSvE-y5crmiYUuc7aBQcPr?usp=sharing>

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Tracing Intersections of COVID-19: Gender, Water and Armed Conflicts

The International Centre for Water Cooperation (ICWC, Stockholm, Sweden) issued the research article entitled, 'Tracing Intersections of COVID-19: Gender, Water and Armed Conflicts'. The article discusses the gendered consequences of disease outbreaks in fragile and conflict affected states in water scarce regions, and how armed non-state actors are using COVID-19 in the Middle East and North Africa region in efforts to gain legitimacy. It concludes by highlighting the role of women, women-led organisations, and that a gender transformative approach is key to the

success of COVID-19 response. The article was published by the Swedish Institute of International Affairs (UI).

Read the full article here: <https://www.ui.se/butiken/uis-publikationer/ui-paper/2020/tracing-intersections-of-covid-19-gender-water-and-armed-conflicts/>

Watch the webinar here:

<https://www.ui.se/english/events/previous/2020/November/water-dialogue-tracing-intersections-of-covid-19-gender-water-and-armed-conflicts/>

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