

NEWS

& information

IAH - THE WORLD-WIDE GROUNDWATER ORGANISATION

Furthering the understanding, wise use and protection of groundwater resources throughout the world

MAY 2021

Also in this issue:

From our President
Equity, Diversity, Inclusion
Media focus
Looking to the future...
Meeting reports
Congress updates

and the regular IAH
announcements and news



CALL AND RESPONSE

We've resources, initiatives, calls, and new prize draws in this newsletter, including opportunities to receive free online registration to our upcoming congresses in Brazil and Belgium. Read more, throughout.

COUNCIL VACANCIES - NOMINATIONS OPEN

Following our sad losses of Devinder Kumar Chadha, Vice President for Asia, and Ralf Klingbeil, Vice President for Science and Programme, we find ourselves with two vacancies on IAH Council. We will therefore be holding elections to fill these vacancies. We now call for nominations for these positions. *Page 12*

WORLD WATER DAY - VALUING WATER

Also the theme for the United Nations' World Water Development Report, valuing water extends beyond issues of price: it also takes into account the environmental, social, and cultural value people place on water.

Read IAH's response and engagement for the day - thanks to many!
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It has been a difficult start to 2021. We mourned the passing of Dr Devinder Chadha, our Vice President for Asia as we entered the new year and then very sadly lost Ralf Klingbeil, our Vice President for Science and Programme. Both Devinder and Ralf had begun to make enthusiastic contributions to the work of IAH Council. Both were keen to ensure that their responsibilities to IAH members should be properly fulfilled. Council members must now manage without this support but will have the aims and aspirations of Devinder and Ralf in mind as the work of IAH Council continues.

The ongoing pandemic continues to provide the unsettling backdrop to all that we do though after so much time perhaps we have become more accustomed to working and living with the constraints that have been imposed. Hopefully the opportunity for vaccination will become more widely available worldwide so there can be the prospect for the reappearance of some normality.

There are many that urge a 'green recovery' once this becomes possible when the pandemic subsides. We hope that sustainable management of groundwater will be key factor in this and that IAH, its groups and its members will be able to play a productive part on this.

Our congresses and conferences are part of this effort and this year we have two congresses and a number of conferences scheduled. We also continue to seek ways of engaging and cooperating with others to help ensure groundwater issues can be part of a much wider debate on environment, socio-economic affairs and governance. We are working with the UN family and other partners on a range of matters that contribute to sustainable development.

A particular priority this year is to prepare a successor to IAH's 'Forward Look' strategy to ensure that the benefits of belonging to the Association continue to be developed for all members and so that IAH can increase its influence on the world stage. IAH's Council looks forward to hearing about what members want from their Association.

We wish you success, peace, prosperity and, above all, good health in 2021.

Ian, Kellie, Sue, Sharon

IAH SECRETARIAT

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ADVERTISING & COPY INFORMATION

IAH News and Information is published 3 times a year. It is distributed as an insert in Hydrogeology Journal and is also published via IAH's website and email alerts. It reaches all members and supporters of the International Association of Hydrogeologists – around 8000 people – and can also be freely downloaded by individuals worldwide for personal/not for profit use.

We accept commercial advertisements. Advertising rates are €300 per full-page advert and €200 per half page.

These rates apply for one issue. If you take an advert in two successive issues then the third is offered free of charge.

Corporate members, supporters and sponsors are offered special rates. Contact us for more details.

We are also happy to consider groundwater related articles from our members and supporters.

Copy dates are 1 March, 1 June and 1 October.

Email knicholson@iah.org for further details.



Dear members, dear colleagues...

I hope this note finds you, your friends and families, and your colleagues safe and healthy. In these Covid 19 pandemic times, our hearts go out to those who have suffered loss, whether it be physically, economically, or have lost loved ones. There are now glimmers of hope with new vaccines and growing awareness of health measures, and with these advances the work of groundwater professionals becomes even more important. Groundwater is not only a last lifeline in resilience to climate change, a defense against ecosystem loss, and an underpinning of agriculture and food security. Clean groundwater provides health for millions in these turbulent times by supplying water for drinking and allowing handwashing in isolated communities. IAH continues to champion a greater understanding of this precious resource - scientifically, politically, and in terms of equity and social justice. Our IAH community promotes the protection of aquifers and wise use of groundwater, and we have an enormous potential to make the world a better place. IAH has been busy in a multitude of activities that you can read about in this newsletter. We are moving forward with a large number of webinars and educational opportunities and are preparing for a number of upcoming international IAH Congresses. Congress organizing committees are busy with two upcoming IAH Congresses in 2021 in Brazil and Belgium, a 2022 Congress in China, one in 2023 in South Africa, and a 2024 Congress planned for Switzerland.

Our collaboration with the United Nations and other sister organizations is going strong. A few weeks ago I was asked to address the UN General Assembly as part of the “High-Level Meeting on Implementation of Water-Related Goals and Targets of the 2030 Agenda”. In March 2022, for the very first time, the theme for World Water Day will be “Groundwater: Making the Invisible, Visible”. As a result, IAH has a major role in working with the United Nations on the 2022 World Water Development Report with IAH co-leading several chapters and collaborating on others. This involves quite a few IAH volunteers. Also, in a planned ceremonial event, we are planning to gather groundwater from around the world and recharge some back into the ground, and perhaps water a tree, to illustrate groundwater’s importance on World Water Day 2022. These are only a few of the international activities going on through IAH.



On a much sadder note as you will learn in this newsletter, two of our new IAH Council members passed away in the last few months. Ralf Klingbeil, who was Vice President for Science and Program, and Devinder Kumar Chadha, who served as Vice President for Asia have died, and they will be greatly missed. Nominations are now open for these Council vacancies, with elections to be held this summer. In the interim, Marco Petitta and Antonio Chambel have agreed to fill in as Acting VPs for Science and Program, and Asia respectively for the next half year.

Once again, I would like to wish you good health and productivity, despite there being so much restriction on travel and face-to-face interaction. The valuable global contributions of our professional association are particularly important at this particular time in history.

DAVE KREAMER



In Memorium

It is with profound sadness that we received the news of passing of Dr. Devinder Kumar Chadha. On behalf of all of the International Association of Hydrogeologists, we wish to express our condolences to his family, friends, colleagues, and to all members of the IAH Indian National Chapter and international community who mourn his death.



Professor Chadha was a champion for hydrogeologists everywhere, playing a central role in research on such topics as aquifer recharge, environmental hydrogeology and aquifer mapping. His work, resulting in over 100 research papers, special publications, books and monographs, was truly international and recognized by the many awards he received including the prestigious UNESCO IHP Water Award. Further, he unselfishly devoted himself to the hydrogeologic community including serving as IAH Vice President for Asia, as several-time President and Secretary of the IAH India National Chapter, and as Chairman of the Centre for Advanced Water Technology & Management, Manav Rachna International Institute of Research & Studies, in Faridabad, India. In 2013 he was awarded a certificate of appreciation by the IAH Executive for his sustained and impactful contribution to the advancement of MAR in India, including through his work while Chair of CGWB.

His far-sighted vision for groundwater governance, water-use efficiency, reduction of groundwater contamination, and preventing over-exploitation of groundwater in the face of population growth and climate change has been a shining example to both young and old hydrogeologists alike. The world is a better place for having had Devinder Kumar in it. He will be greatly missed.

DAVID KREAMER, IAH PRESIDENT



It is also with huge sadness that we reflect upon the sudden passing of Dr. Ralf Klingbeil. On behalf of all members of the International Association of Hydrogeologists, we wish to express our condolences to his family, friends and colleagues. We join in this with Ralf's many colleagues and friends throughout the international community who have been paying tribute to Ralf.

Ralf was particularly well-known for his international work. He presented himself as, "a global citizen and German national with many years of work experience in the Middle East, Europe and Africa." He was committed to many international activities. This included his roles in integrated water resources management with the UN Economic and Social Commission for Western Asia, in Lebanon, and his global groundwater policy role at the German Federal Ministry of Economic Cooperation and Development, focusing on Africa and the Middle East. He was Network Coordinator for AWARENET, the Arab Integrated Water Resources Management Network for capacity development in sustainable water management. In his personal capacity, he served as a member of the Board of Directors for the Middle East North Africa Network of Water Centres of Excellence. Ralf remained a strong advocate for groundwater resources and for groundwater professionals in the region.

Ralf's enthusiasm as IAH Vice President for Science and Programme had begun to infuse the work of the IAH Executive Committee, energizing those he worked with. His aims were to strive, with colleagues, to enhance the role of IAH and the visibility of groundwater in international policy-making. He believed that IAH together with its partners could play a major role at national and international levels. He also recognized how current global challenges show the need for new approaches to international co-operation in the field of groundwater.

Ralf supported and inspired many during his lifetime. We all share many humorous and heart-warming memories of him. Our aim now will be to learn from all that Ralf did and represented and to build on his legacy.

IAH EXECUTIVE



MEDIA FOCUS

A selection of groundwater related features from around the world

SCIENTISTS MAP “PULSE” OF GROUNDWATER FLOW THROUGH CALIFORNIA’S CENTRAL VALLEY

Surface deformation in the Central Valley has long been linked to changes in groundwater storage, but the timing and movement of water flow beneath the surface has been poorly understood due to a lack of reliable data. Scientists are now using advanced satellite data to map the “pulse” of groundwater flow through the San Joaquin Valley, the southern portion of the Central Valley.

<https://ucsdnews.ucsd.edu/pressrelease/scientists-map-pulse-of-groundwater-flow-through-californias-central-valley>

SCIENTISTS MAP AFRICA’S GROUNDWATER RECHARGE FOR THE FIRST TIME

The majority of people in rural Africa and a large proportion in its urban areas rely on groundwater for drinking, hygiene, and development. The rate at which groundwater is replenished is often unknown making regional water security difficult to assess. A recent study showing the continent’s groundwater recharge rates may help policymakers decide how much water can be drawn from aquifers without causing substantial depletion and impact on the environment.

<https://eos.org/articles/scientists-map-africas-groundwater-recharge-for-the-first-time>

INDIA’S GROUNDWATER CRISIS THREATENS FOOD SECURITY FOR HUNDREDS OF MILLIONS, STUDY SAYS

Hundreds of millions of people in India face a serious threat to their livelihoods and food security due to overexploitation of vital water supplies, according a new study. India is one of the world’s biggest crop producers and more than half of its 1.3 billion people rely on agriculture for their livelihoods. But the groundwater that makes up 40% of the country’s water supply has been steadily depleting for years.

<https://edition.cnn.com/2021/02/24/asia/india-groundwater-study-intl-hnk-scn/index.html>

PROSOPIS JULIFLORA ACUTELY REDUCES WATER RESOURCES IN ETHIOPIA, COSTING RURAL LIVELIHOODS

New research has revealed how an invasion of the alien evergreen tree, Prosopis juliflora seriously diminishes water resources in the Afar Region of Ethiopia. These invasive trees in drier parts of the country have substantially reduced groundwater in aquifers, on which local farmers and towns are totally reliant.

https://www.eurekalert.org/pub_releases/2021-01/c-pja012621.php

IS GERMANY FACING A WATER SHORTAGE CRISIS?

In recent years, record heat and low rainfall have taken a toll on Germany’s groundwater, even in the winter. Experts say it’s time to radically overhaul the way the country manages its water.

<https://www.dw.com/en/is-germany-facing-a-water-shortage-crisis/a-56309473>

BANGLADESH AIMS TO CUT GROUNDWATER DEPENDENCY FOR IRRIGATION

Bangladesh is targeting the increased use of surface water for irrigation to 30 per cent of the country’s total irrigation area by 2030 in order to reduce dependence on groundwater for sustainable use of water and efficient management of water resources.

<https://www.thedailystar.net/business/news/govt-aims-cut-groundwater-dependency-irrigation-2029649>

SEA LEVEL RISES FAR GREATER FOR COASTAL COMMUNITIES, SCIENTISTS FIND

Coastal populations are experiencing relative sea-level rise “up to four times faster than the global average”, which threatens many megacities located on deltas, according to research led by the University of East Anglia (UEA). The research is the first to analyse global sea-level rise combined with measurements of sinking land. The impact of subsidence combined with sea-level rise caused by climate change “has until now been considered a local issue rather than a global one”, it concludes.

<https://www.irishtimes.com/news/environment/sea-level-rises-far-greater-for-coastal-communities-scientists-find-1.4504466>

CAMEROON: WHEN WOMEN, WHO ARE SICK FROM WATER AND CLIMATE CHANGE, ARE DISCRIMINATED

The Central Africa office of the Global Water Partnership (GWP) is lifting the veil on a disease caused by global warming in the northern part of Cameroon. More than 500,000 people are affected by fluorosis in the far north. It is a disease caused by chronic fluoride poisoning during the mineralisation phase of the teeth, up to the age of 6 years. It manifests itself by the appearance of yellow, red or black spots on the enamel and a deterioration of the dental crown. This disease affects people living in arid areas where extreme temperatures increase the concentration of fluoride of geological origin in the groundwater.

<https://www.afrik21.africa/en/cameroon-when-women-who-are-sick-from-water-and-climate-change-are-discriminated-a/>

‘IT’S A FUNERAL MARCH’: FRENCH ARTIST JR’S POWERFUL EULOGY FOR AUSTRALIA’S MURRAY-DARLING

Street artist’s work saw 60 people parade through Lake Cawndilla in NSW, holding aloft enormous portraits of local farmers and leaders as they fight to save Australia’s vital river system.

<https://www.theguardian.com/culture/2021/feb/28/its-a-funeral-march-french-artist-jrs-powerful-homily-for-australias-murray-darling>

FRESHENED GROUNDWATER IN THE SUB-SEAFLOOR

Offshore freshened groundwater (OFG) is water hosted in sediments and rocks below the seafloor. It can be found offshore of most continents around the world and could possibly become a source of potable water for human populations living near the coast. Scientists are using a variety of geochemical, geophysical, and numerical methods to study offshore freshened groundwater and better understand its role in the global water cycle.

<https://eos.org/editors-vox/freshened-groundwater-in-the-sub-seafloor>

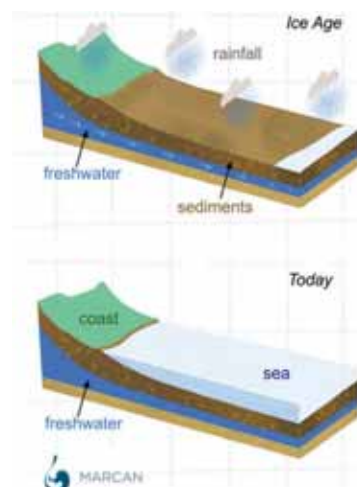


Image: Schematic figure showing how freshened groundwater was deposited offshore when the seafloor was exposed at lower sea-levels. Credit: MARCAN project: <http://www.marcan.eu/>

IAH EXECUTIVE MEETS ONLINE

The IAH Executive Committee held a series of online meetings in January and February, instead of the normal face to face meeting that would normally take place at this time of the year. Ralf Klingbeil was present during the first meetings and his presence and contribution provided a great motivation during the discussions. Ralf will be greatly missed, as will his enthusiasm, ideas and support for all the Executive's activities.

Shortly before this we also very sadly lost Devinder Kumar Chadha, our Vice President for Asia. Dr Chadha had only just begun to make his input to IAH Council but it was clear from his past record that this was set to be significant.

With two vacancies on Council, the most recent discussions centred on how to find worthy successors to Ralf and Devinder. Elsewhere you will see that we are now seeking nominations for these positions. Interim arrangements are also being put in place until the election process has been completed. Antonio Chambel, immediate Past President has agreed to provide support for the Vice President Asia position. Marco Petitta has agreed to take on the role of Vice President for Science and Programme for the time being and will be seeking a deputy to carry out his duties as VP for West and Central Europe during this time.

With the ongoing impacts of the pandemic, the Executive felt it was understandable that the number of members had fallen from more than 4400 in 2019 to around 4000 by the end of 2020. They noted too that in "normal times" a fair proportion of new members are recruited at IAH congresses and other regional events. They were encouraged that through reduced expenditure, particularly related to essential travel for meetings, the finances had held up well. This gives cause for some optimism that additional funding can be put to member benefits, such as support for educational initiatives. Some caution is still necessary. IAH's income is received largely in euro and most of our expenditure is in sterling, as is our financial accounting. Since the beginning of 2021 sterling has appreciated considerably from its low value against other currencies. In consequence our income and euro and dollar reserves are in effect worth far less presently than would have been the case otherwise.

Jane Dottridge, Secretary General, reported on the Education Working Group. She had been in contact with WG lead Marco Petitta and there were proposals to use the WG as a means of co-ordination or reference for the various educational activities that are carried out currently and proposed for the future. The Executive were aware of many activities by National Chapters and Commissions and Networks. They looked forward to more examples and were very pleased to see the success of the recent series of webinars held by members of West and Central Europe Region. It was suggested that there could be talks and videos based on the Strategic Overview Series papers and similarly for content from Hydrogeology Journal, with the appropriate permissions. More information in languages other than English and illustrations and cartoons were also thought to be desirable.

There had been contact about future development of the Time Capsule (see <https://timecapsule.iah.org/>) with founders Craig Simmonds and Philippe Renard. They were keen to reinvigorate the project with potential new



directions and broadening the scope to include stories about groundwater in different countries, interviews with groups of professionals and practitioners, and intergenerational conversations, for example involving ECHN and groundwater pioneers. There should also be an aim for diversity, equity, inclusion and representation across various groups. Ralf reported that he had been in contact with Tom Gleeson about the about the “Water Underground” initiative he and Viviana Re, of IAH’s Socio-Hydrogeology Network, were looking to take forward (see <https://blogs.egu.eu/network/water-underground/2020/12/18/elevating-diverse-voices-and-groundwater-research-from-around-the-world-with-water-underground-talks/>). It was agreed that IAH should support this work.

There were discussions about how to manage IAH’s books series, including how there might be feedback from potential audiences on their particular interests. It was proposed that a working group for books should be set up under the umbrella of the Education WG and that volunteers should be sought to contribute to this.

Cliff Voss, Hydrogeology Journal Executive Editor, joined the meeting for part of the time. He noted that the publisher thought there was scope to increase the size of HJ, though Cliff was concerned about the stress this might place on the HJ team. There had also been discussions with the publisher about moving to a full open access journal. There is a particular debate about this in Europe, where the publisher is based and the possible implications for IAH need to be considered carefully.

The implications of the ongoing pandemic were of particular relevance for the two IAH Congresses scheduled for 2021 and how the Executive and Council should provide their practical support when these take place. The Executive has been providing strong support to the Organising Committees and it was agreed that, subject to restrictions that might be imposed outside of IAH’s control, that there would be some attendance at both congresses, with the aim also being for Council to meet in Brussels. Translations of papers in the Strategic Overview Series would be commissioned to coincide with and support the congresses. Other proposals for highlighting international collaboration in groundwater management, exemplified by the cooperation between the Organising Committees for Sao Paulo and Brussels, were discussed. Look out for more on this shortly – the Organising Committees are keen to have your views....

It was recognised that Forward Look, IAH’s strategic plan from 2010, had served us well. It was now necessary to prepare a successor and the executive considered the paper, ‘Beyond 2020’, with suggestions that former Secretary General, Bruce Misstear had collated. The paper had also been shared with IAH Council for their views. It was agreed that the next steps should be to collate feedback from Council, to seek input from members through a survey and to arrange for discussions to take place with members at the congresses, ideally including online participation.

One item that figures strongly in IAH’s plans is World Water Day 2022 and the World Water Development Report 2022, both of which focus on groundwater. It was reported that good progress was being made on both.

And finally, the Executive agreed that the draft of a new Memorandum of Understanding between IAH and IWRA (International Water Resources Association) could be formally signed off by President Dave Kremer. The MoU has the aims of ‘improved understanding and knowledge sharing, as well as wise use and protection of water resources, including groundwater, for members of both Parties and, more widely, for those with responsibilities for water resources management across the networks of both Parties, with particular focus on the interface between science and policy.’ Several joint activities are highlighted for achieving these goals.

IAN DAVEY, SECRETARIAT

 Questions or comments? Email info@iah.org

2021 - JOINT CONGRESS DECLARATION

2021 is a very special year for IAH, it being one with two congresses: the 47th IAH Congress in Sao Paulo, Brazil in August 2021 and the 48th IAH Congress in Brussel, Belgium in September 2021.

To mark the occasion, the IAH National Chapters in Brazil and Belgium, the IAH Executive Committee and ABAS want to launch a joint Groundwater Declaration spotlighting groundwater challenges in Brazil, Belgium and the rest of the world and providing solutions for sustainable groundwater management and groundwater awareness. This Declaration will be based on the input of all IAH members. We need your help! In the coming weeks, you will receive an invitation to complete our questionnaire. We are looking forward to your input!



APPLIED HYDROGEOLOGY AWARD: CALL FOR NOMINATIONS

Who has made an outstanding contribution to the application of hydrogeology, supporting international development efforts?

We are pleased to call for nominations for the 2021 'Applied Hydrogeology Award'. This award aims to recognise those who have made an outstanding contribution to the application of hydrogeology, resulting in an increase in living standards in low and middle income countries. We would especially like to receive nominations for our many colleagues who have less opportunity to publish papers in scientific journals and whose work is perhaps less well-publicised but nonetheless essential.

A panel appointed by IAH Council will review the nominations and it is intended that the award will be presented in September at the 48th IAH Congress in Brussels, Belgium.

Any IAH member may nominate a candidate, but self-nominations will not be accepted. Candidates do not need to be members of IAH. Nominations should include:

- An explanatory statement by the person submitting the nomination (up to 300 words);
- A letter of recommendation by any other supporter (up to 300 words);
- A brief career history of the candidate (up to 300 words);
- A list of projects the candidate has carried out, including aims, region and period of time;
- A list of projects (planned or accepted), patents, publications or equivalent information.
- And finally, if you had just 1 minute to persuade the panel why your nominee deserves the award, tell us what you would say, using not more than 100 words!

Your proposal must be in total be no longer than 5 pages of text in a single pdf-file. This should preferably be in English. Although we are happy to accept nominations in other languages such as Spanish, French, German, Chinese or Arabic, the judging will be based on an English version (translation will be arranged by IAH's Secretariat). It should reach the IAH Secretariat by e-mail (info@iah.org) before July 1st 2021. We look forward to receiving nominations from all our IAH Regions, to reflect the work of applied hydrogeologists across the world.

SECRETARIAT

LOOKING TO THE FUTURE



The Forward Look Action Plan (2010-20) arose out of consultations with Council and IAH members, including a meeting of volunteers. Actions were set out under five headings: Education and academic development; Internal development of IAH; Informing and influencing global policy; Enhancing alliances with external agencies; and Developing the science of hydrogeology. For details see:

<https://iah.org/wp-content/uploads/2013/05/forwardlookweb1.pdf>

As many of you will recall, achievements over the years included:

- Preparing a series of Strategic Overview papers (9 papers to date - more planned)
- Restructuring of Commissions and Networks
- Establishing an Early Career Hydrogeologists Network
- Updating the IAH rules to better reflect current practice
- Membership increased to over 4,000 and increased number of national chapters
- Launching the mentoring scheme
- Developing the IAH website
- Increasing the size, quality and citation index of Hydrogeology Journal
- Enhancing alliances, influencing policy and developing groundwater science

Beyond 2020

For IAH to continue to be successful and to grow it is essential to know what additional services members will want during the coming decade. How should this be provided – can more be done using our website and virtual meetings with members?

Membership has increased over the years and membership subscriptions form a very important source of income. Can we increase membership further and should we also look to alternative funding mechanisms?

Increasingly members receive Hydrogeology Journal online. Should we take steps to protect the print journal? With open access publishing becoming more common we will also need to consider any implications for both the journal and the way IAH is managed. What will be the place for printed books and our books series?

IAH is a charitable company based in and managed from the UK. National chapters, commissions and networks are managed by members based in all parts of the world. Should there be more effort to administer IAH in this way too?

Equity, diversity, inclusion and gender balance are key issues for the Association. How can IAH achieve greater gender balance and diversity within its governance structure and major committees, including the IAH Executive and Council?

Groundwater will be the focus of World Water Day and the subject of the World Water Development Report in 2022. Can we use these as opportunities for more outreach and influence, to help ensure groundwater is a fundamental consideration to sustainable development?

IAH's Executive and Council would like to hear what members want for their Association and a survey of members views is proposed, with opportunities for discussions at the two congresses this year. We will contact you about the next steps soon!

IAH EXECUTIVE

ELECTIONS FOR COUNCIL VACANCIES

Following our sad losses of Devinder Kumar Chadha, Vice President for Asia, and Ralf Klingbeil, Vice President for Science and Programme, we find ourselves with two vacancies on IAH Council. We will therefore be holding elections to fill these vacancies. We now call for nominations for these positions.

All members who have paid their IAH membership fees can stand for election and are entitled to vote. IAH Council has appointed the Executive Manager, Ian Davey, as the Returning Officer, who will supervise the election. Nominations for those who wish to stand for Council are requested by 16 June 2021.

Nominations

IAH members may be proposed as candidates for Council in two ways: nomination by another member or by recommendation of Council. In each case a proposal must be accompanied by a brief curriculum vitae and a note confirming the candidate is willing to stand for election.

The 2 positions available for election are:

- Vice President, Programme and Science Coordination, with responsibilities for commissions, networks and promotion of science, internally and externally.
- Regional Vice President for Asia, who will provide stewardship of IAH interests and coordination of national chapters in this region.

A nomination should contain a brief curriculum vitae of the candidate and a letter from the candidate confirming her or his willingness to stand for election. Candidates will be required to formally acknowledge the guidelines of conduct before being accepted for inclusion on the voting list.

Information about the current Council members, their biographies and personal statements can be found at <https://iah.org/about/council>. You can also request information about the general responsibilities of Council members and election procedures at info@iah.org.

Nominations should be sent to IAH Secretary General Jane Dottridge by 16 June 2021 at jane.dottridge@gmail.com and copied to the IAH Secretariat at idavey@iah.org. You may also send nominations to our postal address: IAH, PO Box 4130, Goring, Reading, RG8 6BJ, UK, to arrive by 16 June 2021.

Nominations will be scrutinised and confirmed, and will be published on the IAH website at the beginning of July. Election papers will be distributed by email and by mail from this date. Both postal and electronic voting will close on 16 August 2021.

Members will be informed should alternative arrangements need to be made because of the coronavirus pandemic.



IAH Council

Council is the IAH's governing body and its members play a critical role in overseeing the running of the Association. IAH is a registered charity and a limited company, and Council members are both trustees of the charity and directors of the company. They have the legal responsibilities that go with these roles, particularly in terms of ensuring the Association's financial probity.

Council members also have a vital role in developing IAH's policies and plans, and in overseeing their implementation on behalf of all our members. Much has been achieved under our previous Forward Look strategic plan, which was introduced for a 10-year period in 2010 but remains in place until a successor is published. Council members now have the task to create the new plan, taking account of members' views, that will build on the previous achievements and ensure IAH's success during the next decade.

Being a Council member can also help develop further skills, and forge professional relationships and friendships. If you think you could contribute please do consider stepping forward for this role.

The successful candidates will be elected to serve for the remainder of this term, until September 2024, and are eligible to stand again, if they wish to do so, for a further term in these roles.

Council meets once each year, at the IAH Congress. Between these meetings Council members fulfil their other duties, including occasional online meetings.

Some of the more routine activities are delegated to an Executive Committee consisting of the President, the Secretary General, and the Vice Presidents for Finance and Membership, and for Programme and Science. The Executive has additional meetings normally early in the year and mid-year; currently these meetings are taking place online.

Costs for attendance at Council and Executive meetings are covered by the IAH budget, although members are encouraged to make use of other sources of funding that may be available to them, to help conserve funds for other IAH activities.

Regional Vice Presidents may wish to identify Regional Advisors, approved by Council, to look after more local interests of IAH in situations where the region is large and diverse.

IAN DAVEY, RETURNING OFFICER

Equity, Diversity & Inclusion

One of the items discussed during the recent series of IAH Executive online meetings was how IAH should support equity, diversity and inclusion (EDI) in its activities. A summary statement has been drafted to show how we will do this, which is supported by a more detailed document with additional background information.

There are things IAH does already that we believe contribute towards equity, diversity and inclusion. Our graduated membership fees, sponsored members' scheme and support for lower income attendees at congress are ways that we try to put these aspirations into practice. We are also making videos of some lectures from congresses available on the IAH website, which we hope will help those who are unable to be there for various reasons, including family or other commitments, financial constraints, or possibly disability.

Hydrogeology Journal aims for inclusivity by seeking papers from authors and researchers from all parts of the world, who may work under quite different conditions - offering subscription-based publication (no publication fee) or Open Choice and fee discount for IAH members. It also provides English language editing for accepted manuscripts by an IAH-appointed hydrogeologist at no cost to the author. Our Commissions and Networks are open to all. The Burdon Network, in particular, supports members in lower income countries through funded initiatives and other IAH groups and Funds can be used to support our aims under EDI. Efforts are made to actively encourage those early in their careers, via our specialist network and in other ways.

There is clearly more to do. For example, some members have asked for a better balance between men and women speakers and better representation of the global IAH family at congresses. There are opportunities for all IAH groups and members to contribute and we look forward to realising these objectives in the future.

The English terminology presented in the documents is used and perceived differently in different parts of the world. Equity is used in preference to equality in some regions. The summary statement is presented below.

 Questions or comments? Email info@iah.org



IAH'S statement on equity, diversity and inclusion

Properly addressing issues of diversity, inclusion and equity are important for the long-term health and sustainability of the geosciences. IAH is committed to creating an inclusive environment within the Association and through its relationship with other organisations, and to widening participation in all its activities. To this end, the Association commits to promoting equality, equity, diversity and inclusion throughout the IAH communities and groups and to challenging prejudice and discrimination.

IAH commits to promoting inclusion, providing fairness to all our members and equal treatment to all, regardless of age, civil status, class, colour, disability, gender identity, nationality, parental status, race or ethnic origin, religion or belief and sexual orientation. We aim to use gender-neutral and discrimination-free wording and are opposed to all forms of unlawful and unfair discrimination.

Definitions of terms

IAH recognises that terminology used may be perceived in different ways and commits to reviewing terms where these are shown to be inappropriate for the intended purpose.

Equity in this document refers to fairness and equality in outcomes, and does not refer just to support and opportunity.

Equality means ensuring individuals and groups are treated fairly and equally. This involves taking into account the different experiences and needs of all. Some interpret this as treating each as without difference and without counting their differing attributes. Equity has been used in preference to equality in the summary statement, though the background information also refers to equality.

Diversity is recognised by understanding that each individual is different; supporting diversity is known to produce fairer and better outcomes.

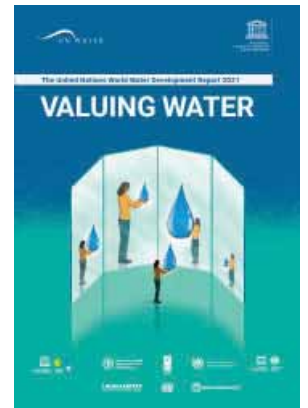
Inclusion means including or being included within a group or structure. Promoting an inclusive culture is about recognising the value of diversity and providing support that might help all to realise their potential.



WORLD WATER DAY

World Water Day 2021 focused on the theme, 'Valuing Water', which is the subject of this year's United Nations World Water Development Report. Valuing water extends beyond issues of price: it also takes into account the environmental, social, and cultural value people place on water. The report describes ways that water may be valued, from different perspectives:

- valuing water sources and the ecosystems upon which they depend;
- valuing water infrastructure for water storage, use, reuse or supply augmentation;
- valuing water services, mainly drinking water, sanitation and related human health aspects;
- valuing water as an input to production and socio-economic activity, such as food and agriculture, energy and industry, business, and employment; and other socio-cultural values of water, including recreational, cultural and spiritual attributes.



Although people may pay for water, attempts to use economic accounting systems are seldom appropriate by themselves - in the case of water, there is no clear relationship between its price and its value. The report considers the different perspectives on the value of water in regions across the world. It emphasises how these different perspectives must be considered in an integrated and holistic way, and how appropriate governance and financing mechanisms must be employed.

The report recognises the importance of groundwater and highlights in particular how it is valued for irrigation but which in turn has caused severe depletion of resources in some regions. IAH and its members of course understand well the value of water, though they may often feel that groundwater is neglected and undervalued by others. IAH members and groups work to counter this through their activities. IAH has published a number of papers on various subjects in its Strategic Overview Series, detailing the value of groundwater for maintaining a healthy environment and supporting a range of economic activities (see <https://iah.org/education/professionals/strategic-overview-series>).

Find out more about this year's World Water Development Report at <https://en.unesco.org/themes/water-security/wwap/wwdr/2021>.

In the run up to World Water Day, Dave Kreamer, IAH President, participated as a panel member in the High-Level meeting on the implementation of the water-related goals and targets of the 2030 The aim was to consider how to accelerate action on water and sanitation, with greater use of data, information and governance.

For World Water Day itself we published an article on the IAH website and used our social media to bring to the attention of as many people as possible, the value of groundwater (see <https://iah.org/news/world-water-day-world-water-development-report-2021>). Overall, we were pleased with the level of engagement from this. Of course there is always room for improvement, so we will build and learn from this year in readiness for next year's efforts, when the focus of World Water Day is Groundwater: Making the Invisible Visible.

We know that IAH representatives and members around the world were also busy on WWD 2021. Of the many, Seifu Kebede (@Sefwater), IAH VP for Sub-Saharan Africa, participated in a webinar organized by the International Atomic Energy Agency entitled: Optimizing Water Resources with Nuclear and Isotopic Techniques. He tells us that three presentations were made to showcase the use of isotopes for groundwater resources management in Africa; optimizing water use efficiency for producing crops, such as coffee, in Central and Latin America; and improving groundwater resources management in Europe. The panelists were, the IAEA Deputy Director General and Head of the Department of Nuclear Sciences and Applications, Najat Mokhtar, and experts from Costa Rica, Slovenia, and Tunisia. Jade Ward (@JST_Ward), ECHN Co-Chair, shared an overview on the British Geological Survey blog of the ways in which groundwater resources are helping to address worldwide issues such as the global water crisis, waterborne disease and climate change adaptation.

IAH members in China supported a workshop on managed aquifer recharge (MAR), organised by the Danish Embassy in Beijing with the Danish Environmental Protection Agency. New research findings on MAR were shared which demonstrate its potential for climate proofing the challenged groundwater supply.

Yan Zheng, current MAR Co-Chair and Peter Dillon, former MAR Chair, participated in a Special Webinar organised by the Water Resources Research Center Arizona, and supported by IAH. A report from this event follows overleaf.

SECRETARIAT



Report from Sharon B. Megdal, Director, WRRRC, University of Arizona

Managing Aquifer Recharge: A Showcase for Resilience and Sustainability

On Monday, March 22, the WRRRC celebrated World Water Day with a webinar featuring the North American case studies included in the forthcoming UNESCO volume, *Managing Aquifer Recharge: A Showcase for Resilience and Sustainability*. In an excellent introductory presentation, Dr. Yan Zheng, Co-Chair of IAH's Commission on Managing Aquifer Recharge and lead editor of the volume, provided an overview of four lessons learned through analyzing the 28 MAR case studies, including the importance of supportive regulatory and permitting processes and improved community engagement efforts for the sustainability of MAR projects. Authors of the five North American case studies, among the 28 included in the book, presented their work. Arizona's case study on the Arizona Water Banking Authority was presented by Ken Seasholes of the Central Arizona Project. This chapter, which was co-authored by WRRRC Director Sharon B. Megdal, who also moderated the panel, was unique in that it focused on an institution rather than a physical project. After the presentations of case studies from South Carolina, the Platte River watershed, California, and Sonora (MX) and comments by book co-editor Peter Dillon, former Chair of IAH's MAR Commission, a wide-ranging discussion shaped by questions from the engaged audience ensued. A recording and the slides from the webinar are available to view via the link below, as is the book itself.

Find out more

Webinar recording and slides: <https://wrrc.arizona.edu/world-water-day-special-webinar>

Book information: <https://www.mdpi.com/books/pdfview/book/3558>



Synthesis and Overview of Managing Aquifer Recharge: A Showcase of Resilience and Sustainability

Yan Zheng, Chair Professor, Southern University of Science and Technology, Shenzhen, China



Orange County Groundwater Basin Managed Aquifer Recharge Program for Santa Ana River Flow

Adam Hutchinson, Recharge Planning Manager, Orange County Water District, California



Managed Aquifer Recharge to Recycle Water for Agricultural Use in San Luis Rio Colorado, Sonora, Mexico

Adriana Palma Nava, Academic Technician, Engineering Institute, UNAM



Central Platte River Irrigation Canals Managed Aquifer Recharge

Crystal A. Powers, Research and Extension Communication Specialist, University of Nebraska Water Center



Achieving Water Supply Reliability at Hilton Head Island, South Carolina, USA

David Pyne, President, ASR Systems LLC, Gainesville, Florida



The Arizona Water Banking Authority: The Role of Institutions in Supporting Managed Aquifer Recharge

Ken Seasholes, Manager of Resource Planning and Analysis, Central Arizona Project



Session Wrap-up

Peter Dillon, Honorary Fellow, CSIRO Land and Water and the National Centre for Groundwater Research and Training, Adelaide, Australia



Panel Moderator

Sharon B. Megdal, Director, University of Arizona Water Resources Research Center





WEBINARS

[Home](#) / [Webinars](#)

Below, in approximate date order, are the names of all those who have contributed so far to the Brazil congress webinars since September 2020, the original date of the 47th IAH Congress. We'd like to take this opportunity to thank everyone, and especially those on Brazil Organising Committee for making this possible. All the webinars are available to view on a dedicated ABAS YouTube channel. See the link below.

Thank you, so far, to...

John Cherry, the Groundwater Project; Dr. Everton de Oliveira, HIDROPLAN | ABAS | The Groundwater Project; Dr. Miguel Rangel Medina, President, ALHSUD; Bruna C. Soldera, President, Early Career Hydrogeologists' Network Brazil; Ricardo Hirata, CEPAS/ USP; Stephen Foster, Professor, University College London; Emilio Custodio, Professor, Universidad Politécnica de Catalunya; Ricardo Andrade, ANA; Alice Aureli, Water Science Division, UNESCO; Carlos Molano, Vice President – Latin America and the Caribbean, IAH; Roberto Kircheim, National Geological Survey; Jurgen Mahlkecht, Professor, ITESM; Kevin Pietersen, Extraordinary Senior Lecturer, University of Western Cape; Tushaar Shah, Former Director Institute of Rural Management, International Water Management Institute; Prof D C Singhal, President, IAH Indian National Chapter; Adam Hutchinson, Recharge Planning Manager, Orange County Water District; Dr. Enrique Fernández Escalante, Co-coordinator, IAH Commission on Managed Aquifer Recharge; Bruna Soldera, President, IAH Early Career Hydrogeologists' Network Brazil; Dr. Didier Gastmans, Researcher, UNESP; Prof. Dr. Seifu Kebede Gurmessa, Sub Saharan Africa VP, IAH; Dr. Briant Jurgens, Research hydrologist, US Geological Survey; Prof. Dr. Zheng-Tian Lu, Professor of Physics and the Dean of the School of the Gifted Young, University of Science and Technology of China (USTC); Viviana Re, Assistant Professor, University of Pisa, Italy and IAH Socio-Hydrogeology Network; Laurens Thuy, Gender & Communication' Officer, UNESCO World Water Assessment Programme; Theresa Frommen, Post-Doctoral research Fellow, Humboldt-Universität zu Berlin, Germany and AH Socio-Hydrogeology Network Co-Chair; Ana Maciel de Carvalho, Assistant Professor, Federal University of Jequitinhonha and Mucuri Valleys – UFVJM, Brazil; Sasha Tom Hart, PhD student, University of São Paulo; Matthew Damhuis, Specialist Hydrogeology and Water Management, Sishen Mine; Marijke Huyamans, Professor, Vrije Universiteit Brussels (Belgium) – Chair of the Scientific Committee of the 48th IAH Congress; David Kreamer, President, International Association of Hydrogeologists (IAH)/ Professor at the University of Nevada.

 [Brazil Congress webinar info - https://iah2021brazil.org/en/webinars/](https://iah2021brazil.org/en/webinars/)

Free Congress Registrations

We have free registrations for members for our congresses in Brazil and Belgium!

Right now we are able to announce a prize draw for all members for online registration for our Brazil Congress and a call for applications for registration support for those on low incomes. Look out for the next announcement for free registrations for our Belgium Congress!

Member prize draw - online registration for 47th IAH Congress, Brazil (August 2021)

We have 2 registrations for an open draw to all members for the Sao Paulo Congress. To enter, complete your details including membership number here:

<https://www.surveymonkey.co.uk/r/47thcongressdraw>

Terms and conditions:

Prize draw closes 11.45pm BST on Tuesday 30 June 2021. Entry is open to current IAH members only (2021 dues paid, or on sponsorship programme). One entry per individual (additional entries will be discarded). Winners will be picked by random draw and will be contacted by email soon after the closing date. Winners will be also be announced in the December 2021 edition of "News and Information".

Application for IAH funding: free online registration for 47th Congress, Brazil (August 2021)

IAH is able to provide 8 online registrations to existing IAH members who may otherwise have difficulty in securing funding to participate in the Sao Paulo Congress. Traditionally such support has been for those from lower income countries and for 2021 we would also like to extend this opportunity to younger members on lower incomes who would otherwise be unable to attend.

To apply, use the following link where you will be asked to respond to a few questions and provide a short personal statement:

<https://www.surveymonkey.co.uk/r/47thSFapp>

A panel including members of the Organising Committee will assess the applications. They may set other criteria and will contact you in this case.

Terms and conditions:

Applications close 11.45pm BST on Tuesday 30 June 2021. Eligibility is limited to current IAH members only (2021 dues paid, or on sponsorship programme). Winners will also be announced in the December 2021 edition of "News and Information".

SECRETARIAT



Members' Book Draw

Win a copy of "International Law and Transboundary Aquifers" by Francesco Sindico

Thanks to Francesco Sindico (Reader, International Environmental Law and Director, Strathclyde Centre for Environmental Law and Governance) and Edward Elgar Publishing, we've a copy of "International Law and Transboundary Aquifers" to give away to a lucky IAH member in our latest book prize draw.

Groundwater amounts to 97% of available global freshwater resources. Emphasising the crucial importance of this in the context of increasing population, climate change and the overall global water crisis, Francesco Sindico offers a comprehensive study of the emerging body of international law applicable to transboundary aquifers.

Adopting a scenario-based approach, this much-needed book analyses a diverse set of transboundary aquifer agreements and arrangements. With just a handful of such agreements and arrangements around the world, it demonstrates how identifying a normative roadmap for countries that want to begin jointly managing a transboundary aquifer is of paramount importance. Offering an in-depth exploration into the ILC Draft Articles on the Law of Transboundary Aquifers, it provides insight into how this body of law is evolving, and discusses its relation to customary international law.

Academics and researchers interested in international water law, environmental law and public international law more widely will find this a unique and compelling work, whilst the book's practical approach will also make it a useful tool for transboundary aquifer professionals and wider stakeholders working in governments and public bodies dealing with water management around the world.

To enter to win, complete your details including membership number here:

https://www.surveymonkey.co.uk/r/LawTBA_Sindico

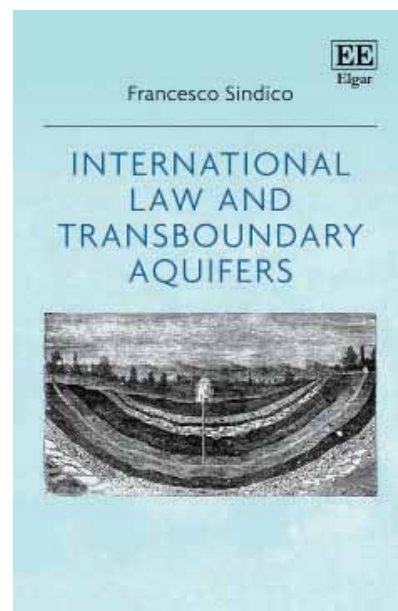
To find out more about the book, visit:

<https://www.e-elgar.com/shop/gbp/international-law-and-transboundary-aquifers-9781788117623.html>

Terms and conditions:

Prize draw closes 11.45pm BST on Thursday 30 September 2021. Entry is open to current IAH members only (2021 dues paid, or on sponsorship programme). One entry per individual (additional entries will be discarded). One registration is on offer for this draw. The winner will be picked by random draw and will be contacted by email soon after the closing date. The winner will be also be announced in the December 2021 edition of "News and Information".

SECRETARIAT



MEMBER MATTERS



New Members

A warm welcome to the following new members, who joined our Association in the period 14 October 2020 - 24 March 2021

ARGENTINA

Guillermo LUQUE

AUSTRALIA

Aimee AOAKE

Chelsea BAMBRICK

John BARLOW

James BARRETT

Philip BAYNE

Riaan BEZUIDENHOUT

Heather BRENNAN

Glen BRUMM

Kirsty COOKSEY

Alice DODMAN

Wayne DODSON

Andrew EZZY

Matthew FORBES

Claudio FUENTES GERMANY

Simone GELSINARI

Lachlan GIBBINS

Megan HALBERT

Glenn HARRINGTON

Alison HENDRY

Krisen ISBEL

Andrew JACKSON

Stephen JOHNSTON

Brian LUIINSTR

Ali MAHAQI

Andy MORAN

Robert NELSON

Bradley PLANK

Natasha RAMMERS

Brendan RAY

Jordan REEDS

Manu SHARMA

Claire STEPHENSON

Matthew TAYLOR

Rachel THOMPSON

Rachel TRUSCOTT

Emma WATTS

Craig WICENCIAK

Tim WILKINSON

Ruth WILLIS

Ying ZHANG

Zibo ZHOU

BELGIUM

Francis CLEMMENS

Wouter DELEERSNYDER

Ellen VAN DE VIJVER

Simon VAN DEN BROECK

Cédric WENGLER

BURKINA FASO

August Abdon KINGLO

CANADA

Matt ARNOLD

Elysha BREARS

Scott COUSINS

Thomas CUMMINGS

David DAVIES

Charles-Edouard DESCHAMPS

Amy DOMARATZKI

Phil JANISSE

Jonathan KEIZER

Moussa KFOURY

Sarah LIONSBRIDGE

Natasha LORAN

Robert MARIC

Leslea MCKIE

John MCNEIL

Daniel PARADIS

Victoria PROPP

David RUDOLPH

Dwight SMIKLE

Laura SMITH

Colin WALKER

Evan WESTAD

Landon WOODS

CHILE

Mohammad Ayaz ALAM

Amapola ALBORNOZ

Ignacio ALVAREZ

Jose Luis ARUMI

Nicole CABRERA

Pamela GARAY

Omar LORCA

Hernan RIVAS

Loreto VALDIVIA

CHINA, PEOPLE'S REPUBLIC

Li HE

Deqiang MAO

Wang QI

Jiaxin SHI

Ji TAOTAP

Zhenyan WANG

Tang XULIN

Tan YING

Xiaodong ZHANG

Yipeng ZHANG

COLOMBIA

Gustavo A. BUITRAGO PAEZ

Sandra A. CUEVAS GOMEZ

Jhonatan A. ESCOBAR PRIETO

Luisa F. VALENCIA CASAS

CROATIA

Tena BILIC

Dragana DOGANČIĆ

Matko PATEKAR

Mirja PAVI

Ana SELAK

CZECH REPUBLIC

Martin SROT

DENMARK

Paula ENGELL-SØRENSEN

Lars TROLDORGB

ECUADOR

Francisco HERRERA

ETHIOPIA

Bewuket BEKELE

FINLAND

Annika ÅBERG

Susanne ÅBERG

FRANCE

Mamadou BA

Christelle BESSE

Alexandre BRUGERON

Lucie BRYON DUPONCELLE

Audrey DAMIANS

Marwan FAHS

Mathilde FARAUD

Raphaël GARCIA

Alicia GARCIN

Helene GILLET

Emmanuel GOTCHANGA PLEYO

Jérémie HEDOIN

Julia ISOARD

Mauricio JARA

Rébecca JOUENNE

Isabelle LARGIER

Claire LARTIGAUT

Guillaume LE MOTHEUX DU PLESSIS



Pierre L'HERMITE
Juliette MEXLER
Grégory MEYER
Géraldine PICOT-COLBEAUX
Sarah ROBERT
Quentin SZECZOWKA
Matthias THOMAS
David VIENNET

GEORGIA

Anzor GIORGADZE
Avtandil JGAMADZE
Zurab KAKULIA
Akaki MAGLAKELIDZE
Marine MARDASHOVA
Tamar MIKAVA
Nika MOMTSELIDZE
Niko POPORADZE
Tamuna RAZMADZE-BROKISHVILI
Giorgi TLASHADZE

GERMANY

Christian ENGELMANN
Lena KAEMPFNER
Bradley WEYMER
Lilli WITT
Sibo ZENG

GHANA

Francis ATUQUAYE OKAI
Edwin DODOO
Sandow Mark YIDANA

GREECE

Parchalis DALAMPAKIS
*Hellenic Agricultural Organisation-
Soil & Water Resources Institute (C)*
Andreas PANAGOPOULOS
Vassilios PISINARAS
Evangelos TZIRITIS

HUNGARY

Judit DERI-TAKACS
Sikandar HAYAT

INDIA

Ishtiyag AHMAD
Debasish BAGCHI
Saugata DAS
Naresh GOR
Anil Kumar JAIN
DC JHARIA
Deepak KUMAR
PRAKASH KUMAR
Nikhil Vinay MINZ
Ahmad MUKHTAR HASAN
Shristi MUNDU
Jayashree PAL
Raja SEKHAR
Mayank SHARMA
Deovrat TIWARI
Ashwani Kumar TIWARI
Md Taufique WARSI

INDONESIA

Priyo HARTANTO
Rachmat Fajar LUBIS

IRAN

Mohammad MIRZAVAND

IRAQ

Lanja RAUF

IRELAND

Christopher AHERN
Darren CLARKE
Eoghan CONCANNON
Cathal FAHERTY
Aidan JARVIS
Conor MCGRATH
Connie O DRISCOLL
Alan PHELAN

ISRAEL

Eyal SHALEV

ITALY

Costanza CAMBI
Giulia CASIRAGHI
Andrea CITRINI
Daniele COCCA
Delia CUSANO
Alessia DI GIOVANNI
Elena EGIDIO
Riccardo FANTI
Francesca GORI
Enrico GUASTALDI
Francesco INCANI
Isabella Serena LISO
Elisa MAMMOLITI
Licia C POLLICINO
Fabrizio RAMA

JAPAN

Fumi SUGITA
Satoshi TAJIMA

KOREA, REPUBLIC OF

Soo-Hyung LEE

LEBANON

Michel AOUN
Michel FREM
Assaad KASSEM
Ramez KAYAL
Wisam KHADRA
Jihad OTHMAN
Tracy ZAAROUR

MADAGASCAR

RAKOTONDRABE FELANIAINA

MALAWI

WALTER MISELENI

MEXICO

Dora ROMERO

NB: Those marked (c) are new IAH corporate members.

MEMBER MATTERS



A warm welcome to more new members

who joined our Association in the period 14 October 2020 - 24 March 2021

NAMIBIA

Ester GUSTAVO
Josefina HAMUTOKO
Winnie KAMBINDA
Bertram SWARTZ

NEPAL

Anoj KHANAL

NETHERLANDS

Aditya Vikram JAIN
Vince KAANDORP
Roel MELMAN
Ricardo L. M. PAÍZ
Klaasjan RAAT

NEW ZEALAND

Lisa SCOTT
Natasha SIMPSON
Christy SONGOLA
Mark TREWARTHA

NIGERIA

Arinloye S ADEBISI
Boluwatife Michael AKINPELU
Aminu HARUNA YIRASO
Sodiq OGUNTADE
Ajayi A OLUGBENGA

NORWAY

Anna SEITHER

PERU

Claudia ANGELES
Bertha V. LLANOS HOLGUÍN
Nelia R. QUINTANA MISARI
Francisco J. QUINTANA PALACIOS

PHILIPPINES

Marnette PUTHENPUREKAL

POLAND

Artur GUZY
Magdalena MATUSIAK

QATAR

Clement LEREVENU

SAINT KITTS AND NEVIS

Ryan Delvin PHILLIP

SAUDI ARABIA

Syed Munaf AHMED

SERBIA

Dušan ANDREEV
Dimitrije ZBILJIC

SOUTH AFRICA

James BERKLAND
Zaheed GAFFOOR
Sarah HEUER
Francois KOTZE
Johnny LUBBE
Bongeka MAPHUMULO
Akhona MAQHUBELA
Aarifah WILLIAMS

SPAIN

Hector AGUILERA ALONSO
José María AVILA MARÍN
Alejandro CARRASCO MARTÍN
Andrés DIÉZ HERRERO
Luis Héctor ENCUESTRA BARDINA
María José MONTES VEGA
Nuria NARANJO FERNÁNDEZ
Carmen SERRANO HIDALGO

SWEDEN

Joel FRANDBSEN

SWITZERLAND

Jonas BERNASCONI
Raphaël FARINE
André OLSCHIEWSKI
Stefanie WIRTH

UNITED KINGDOM

Judith CLARKE
Mukta DEODHAR
Toby GILL
Thomas GOODFELLOW
Joshua HALL
Katy JAMES
Daniel MALLIN MARTIN
Bruno MAZAO
Lauren RIDDELL
Christopher SWAINSTON
Mark WHITEMAN

UNITED STATES OF AMERICA

Golnoosh ASADIAN
Dawit Wolday ASFAW
Ahmad ASKAR
Mike BEHE
Amanda CAMPBELL
Audrey DAY
Sarah EVANS
Faith GODDARD
Andrew GOVERT
Jenna HARKER
Hanni HAYNES
Rebecca HOLMES
Patricia KAMBESIS
Peter KANG
Kyungwon KWAK
Daniel LARSEN
Meredith MARTINEZ
John MCDONALD

Kaleigh NUYTTENS

Richard PARIZEK

Teyah PAYNE

Andrew PETERS

Mary Wallace PITTS

Andrew PUTT

Goabaone J RAMATLAPENG

Alex RINEHART

Shishir SARKER

Cavien SATIA

Andrew SHAUGHNESSY

ZIMBABWE

Brian MUROVE



Share knowledge and memories... @iahgroundwater #iahgroundwater

Check your records!



Are you receiving your regular IAH messages and alerts with HJ link and latest news digests and initiatives?

Ensuring that our members receive their IAH benefits such as the Hydrogeology Journal is important to us. Do you work for a large government/commercial/educational organisation? Many such employers have firewalls in place. You may have to provide an alternative email address to receive your member mailings, or speak to your IT department. IAH emails are always sent from an @iah.org address. Please check your details and IAH settings regularly - we'd hate you to miss out.

SECRETARIAT



<https://iah.org/members/edit-details>

Mentoring Scheme



Thank you to all those who submitted forms for our mentoring scheme in the latter part of 2020. We have undertaken reviews of all applications received and, as this newsletter was being compiled, are in the closing stage of contacting everyone regarding next steps. We are grateful for everyone's patience and support for the programme.

We hope to reopen the scheme later in the year for new applications. We'd also love to receive updates/progress from former and existing participants on the scheme - do get in touch with your feedback and comments - email info@iah.org.

SECRETARIAT



<https://iah.org/education/professionals/mentoring>

Use of IAH's logo

Following the widespread take up of our anniversary logo during 2016, for most uses we have reverted to the original logo without the date band, albeit in an improved digital format.

For many purposes, when we use or are asked for our logo the simple shield suffices, especially where IAH is already well-known. However, when we offer or are requested use of the logo for new partners or collaborators and/or the logo is going to be displayed along with many others, then the full name of the association helps us to become better known. This was suggested by Past President António Chambel, and versions with the full name are now available. We have also produced a high quality black and white version, in response to a requests for use on publicity and event material such as T-shirts, pens etc.

We welcome the use of the IAH log for non-profit events organised by our national chapters and commissions and networks. It may also be appropriate to use the logo for events arranged by other organisations where there is clear support by IAH, its chapters and specialist groups or members who are participating on behalf of IAH. The logo with words should be used where possible. If you would like to use the logo for an event you are involved in but are uncertain how to use the logo, contact us at info@iah.org and we will be happy to provide guidance.

SECRETARIAT



<https://iah.org/iah-logos>



International Association of Hydrogeologists
the World-wide Groundwater Organisation



CHAPTER NEWS

Thank you everyone...

It's good to see so many of you renewing your membership and also many new members too. We hope that you will also make contact with the National Chapter for your country if there is one, to join in any activities that they have planned – and maybe to give support to all the hardworking chapter teams we have. And if there isn't already a National Chapter, maybe you and your colleagues would like to start one. The IAH Secretariat would be very happy to provide advice and support in taking forward any plans. Contact us at info@iah.org.

The latest National Chapter to join is in Georgia. Welcome to everyone in the Georgia National Chapter - we're very pleased to have you on board! We hear that the proposed chapter in Lebanon may be almost ready and there is ongoing interest in a group in Malawi and possibly in Ghana too.

We are always impressed by the activities of all of IAH's National Chapters. There is a lot happening, despite the pandemic – or possibly because of it, as more chapters out of necessity spend more time in the virtual world. There are probably too many examples to mention, with webinars and other activities being organised around the world, but you might want to take a look at the following:

Peru - <https://www.facebook.com/IAH-PERU-102247684962075/>

Colombia - <https://www.youtube.com/channel/UCZloCc1JFWo8TzwqTwx8lxw>

Chile – the updated website made the Secretariat smile, with photos and information about the big 'IAH family' in Chile – <http://aih-cl.org>

Mexico - see their Facebook page; the chapter organises webinars, a recent theme being women leaders who contribute to the management and knowledge of underground water - see <https://www.facebook.com/Asociacin-Internacional-de-Hidrogelogos-Captulo-Mexicano-113751694096954>

Join in the webinars and other activities currently being run by the Brazil NC (<https://iah2021brazil.org/en/webinars/>) and look out for news of a joint Brazil-Belgium webinar, as both look forward to the congresses this year (see also <https://iah2021belgium.org/>)

There are also events being organised by our national chapters in Australia, New Zealand, Canada, the Netherlands, Spain, India to name just a few. More are planned, including a series of webinars promoted by Vice President for Europe (West & Central) Marco Petitta and others.

Please remember to tell us in advance about your events if you would like us to publicise them: See current events at <https://iah.org/events/category/iah-events>

The form to submit your national chapter event is at <https://iah.org/submit-an-event>.

And of course, let us know how it all went afterwards so that we can report on it in the newsletter - including what went well, and what you might adapt another time. We are always learning...

SECRETARIAT



<https://iah.org/groups/national-chapters>



Iraq

Iraqi Geological Journal (IGJ)

Colleagues in the Iraq National Chapter told us about their strong links with the Iraqi Geological Journal (IGJ), a peer-reviewed journal of the Union of Iraqi Geologists, founded in 1968.

The Journal covers many geosciences topics, such as water resources (hydrology and hydrogeology), petrology, mineralogy, geochemistry, sedimentology, and environmental sciences. Although there is a particular interest in publishing local studies with conclusions of general interest, the Journal is looking to expand its breadth of coverage to an international scope. The journal accepts manuscripts submitted in English Language only. Access the journal via <http://igj-iraq.org/>.



Canada

GeoNiagara2021 and new webinars

Colleagues in our Canadian National Chapter in collaboration with the Canadian Geotechnical Society invite you to GeoNiagara 2021, the 74th Canadian Geotechnical Conference and the 14th Joint CGS/IAH-CNC Groundwater Conference. The conference will be held at Niagara Falls, ON, Canada from Sunday, September 26 to Wednesday, September 29, 2021. The theme is "Creating a Sustainable and Smart Future". The organisers are confident that the conference will take place in-person in September 2021 but are planning for GeoNiagara 2021 to be a hybrid conference and will have virtual components available for delegates who are unable to travel to Niagara Falls.

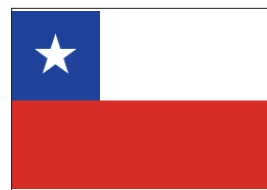
In addition, the chapter has organised three additional webinars in its "Making the Invisible Visible" series. Listed below, they are all available to view from the chapter website:

Geochemical assessment of the contamination risk of water supply wells, Dr. René Lefebvre;

Regional mapping of groundwater quality and chemistry in Ontario using private water supply wells and public monitoring wells, Dr. Stewart Hamilton;

Groundwater Infrastructure - Ushering in the big data era on the Oak Ridges Moraine, Ontario, Steve Holysh

 <https://www.iahcnc.ca/index.php>



Chile

Training and webinar

National Chapter colleagues in Chile have organised a number of international presentations and a training course in recent months. Accompanying information from some of the presentations are available to download from the chapter website, for example:

Caracterización de sistemas hidrogeológicos en zonas de alta montaña mediante técnicas isotópicas

Dr. Jorge Jódar; Instituto Geológico y Minero de España and Modelación Integrada Superficial-Subterránea con fines de Planificación de Cuencas: Ventajas y Desafíos

Pedro Sanzana, Dr. Ingeniero Civil

 <https://www.aih-cl.org/>





We'd like to pass on our huge thanks to colleagues from our Spanish National Chapter and beyond for undertaking the Jo.in Hydrocafe initiative. Jo.in Hydrocafe aims to encourage early career researchers internationally to show and share their work, increasing the visibility and impact of their contribution to Science. The spread of new research methodologies for their application aims not to just transfer new knowledge, but to also motivate and give new ideas to everyone that accesses the platform.

Sessions have been running monthly since November 2020 - for those who've missed them, all of them are available to view on YouTube. Not quite all corners of the world have been represented yet - but in a short time there is already a very strong international feel.

SECRETARIAT


 <http://www.aih-ge.org/jo-in-hydrocafe/>



Learn about passionate researchers and their latest work on connections between groundwater, climate, food, and people

Water Underground is recording a series of videos of groundwater experts from around the world, to share their passions and their latest research. Its aim is for a critical yet positive and forward-looking perspective. Videos feature researchers' latest research on the connections between groundwater, climate, food and people as well as elevate diverse voices and perspectives. Water Underground is partnering with various organizations including IGRAC, UNESCO, IAH, GRIPP and GIWS to help raise the profile of the initiative and distribute the videos.



 <http://www.waterundergroundtalks.org/>

FROM THE IAH BOOK SERIES

Investigating Groundwater

Ian Acworth

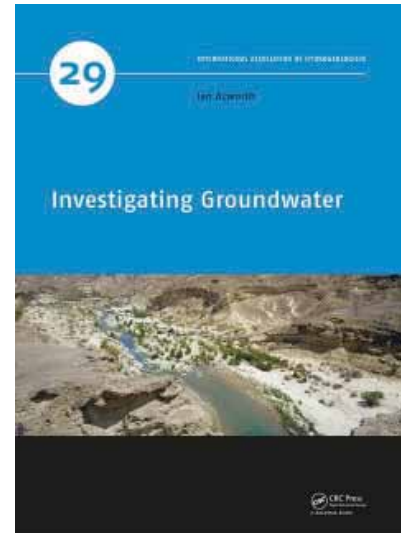
Investigating Groundwater provides an integrated approach to the challenges associated with locating groundwater. It provides a review of the wide range of techniques that can be deployed to investigate this important resource. Many of the practical examples given are based upon Australian experience but the methods have worldwide applicability. The book is published in colour and includes many original diagrams and photographs. Particular effort has been made to provide consistent terminology and SI units are used throughout the text.

Written for a worldwide audience of degree level geology/engineering practitioners, academics and students involved in groundwater resource investigation methods, Investigating Groundwater is essential reading for those working in groundwater research.

ISBN 9781138542495

NOW IN PAPERBACK! £34.39

HARDBACK £150.00 (30% OFF HARDBACK PRICE FOR IAH MEMBERS)



Groundwater Response to Changing Climate

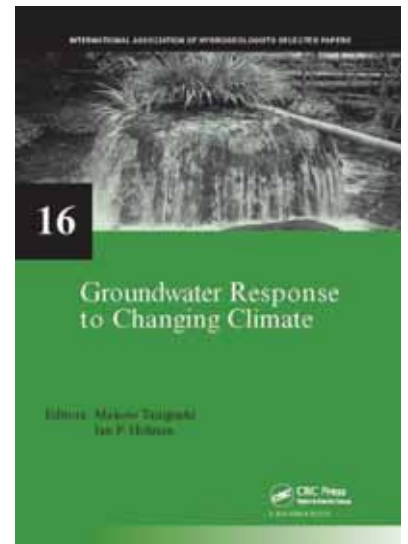
Edited By Makoto Taniguchi, Ian P. Holman

Groundwater systems are vital to both society and the environment, supporting food production and many other ecosystem services. Sustainable management of this vital resource for future generations requires a sound understanding of how groundwater might respond to the inevitable changes in future climate. In this volume, recent developments within the interlinked areas of the response of groundwater systems to climate variability and climate change are highlighted, using contemporary field investigations and monitoring of aquifers, numerical simulations of aquifer response to climate change predictions and paleohydrogeological studies of ancient groundwater systems. The book provides an up-to-date description of the relationship between groundwater behaviour and ancient, historical, current and future climates for a range of diverse aquifer systems around the world.

ISBN 9781138112599

NOW IN PAPERBACK! £55.19

HARDBACK £144.00 (30% OFF HARDBACK PRICE FOR IAH MEMBERS)



COMMISSIONS & NETWORKS

IAH's commissions and networks contribute to the science of groundwater and undertaking outreach, education and training. They run sessions at IAH congresses and virtual meetings, co-convene technical meetings and field excursions with other societies, host workshops and training courses and prepare educational and outreach publications. You do not have to be an IAH member to participate. In fact we encourage wide involvement from the groundwater community, as this will help the groups to thrive and give greater authority to their work. We welcome suggestions for new topics or activities – email ideas and comments to info@iah.org. For more information go to <https://iah.org/groups/commissions-networks>.

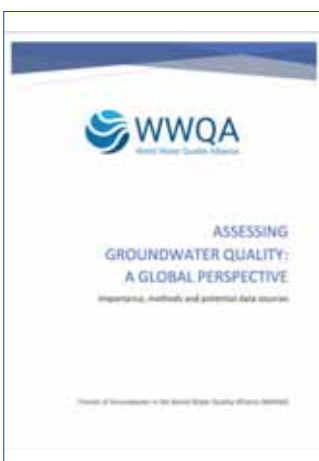
SECRETARIAT

Commission on Groundwater Quality (IAH-GQC)

The Friends of Groundwater, a network of about 30 global groundwater experts representing 20 institutions and organisations, including IAH's GQC, prepared a comprehensive paper on the qualitative state of groundwater resources globally: "Assessing Groundwater Quality: A Global Perspective. Importance, Methods and Potential Data Sources".

The paper is prepared in the framework of the World Water Quality Assessment led by UN Environment (UNEP) and was presented at the 2nd annual global meeting of the World Water Quality Alliance 27-28 January 2021.

To find out more, including accessing the paper, go to <https://groundwater-quality.org/friends-groundwater-produce-perspective-paper-groundwater-quality>



<https://gwquality.iah.org/>

Commission on Karst Hydrogeology

A special issue of Hydrogeology Journal entitled "Five Decades of Advances in Karst Hydrogeology" was published in March, with 29 papers written by 97 authors from 20 countries. It formed part of the celebration of the 50th anniversary of the Karst Commission as well as the International Year of Caves and Karst. The editors (Augusto and Zoran) would like to express their gratitude to the authors and reviewers, many being Karst Commission members.

Colleagues from the Centre of Karst Hydrogeology of the University of Belgrade (Serbia) will be organizing three events that, together, will comprise "A Week with Karst". The first event (1 - 5 June) will be the traditional CEKA (Characterization and Engineering of Karst Aquifers) course in its 8th edition. During four days 11 professors will provide 18 wide ranging lectures dealing with general and applied aspects of karst hydrogeology. A Special Thematic session titled "Lecturing by Distinguished Guests" will take place on 5th June, bringing online presentations by 12 invited eminent karst experts from around the world. This session is dedicated to the 40 years of work and retirement of our colleague Zoran Stevanović. On June 6-7, the virtual Multidisciplinary Conference "Karst: From Top to Bottom" will take place. This conference is open to all, but especially devoted to young (under 40) karst researchers.

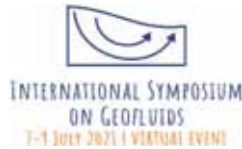
The events are part of the International Year of Caves and Karst. Further information and registration can be found at: <http://www.karst.edu.rs/en/index.html>



<https://karst.iah.org>



Regional Groundwater Flow Commission



A reminder concerning the online International Symposium on Geofluids, Budapest, Hungary, 7-9 July 2021. The symposium aims to bring together scientists, professionals, stakeholders to share and discuss all kinds of aspects of geofluids, i.e., groundwater, geothermal energy, hydrocarbon, geogenic contamination, and hydrothermal mineral resources, with special emphasis on harmonized exploration and utilization. We, therefore, welcome researchers in all aspects of geofluids' research. Stay tuned @ <http://geofluids2020.hu/>

The Commission is planning to meet at the 48th IAH Congress, Belgium, and is also organising special sessions during the week.



<https://regionalgwflow.iah.org/>

Commission on Managing Aquifer Recharge (MAR)

ISMAR11 has launched the call for abstracts! Taking place in Long Beach, California on 11-15 April 2022 ISMAR 11 includes a full day of pre-conference workshops, three days of technical sessions, plenary sessions, awards luncheon, field trips and great networking, socializing, and entertainment opportunities... Stay connected by signing up for the ISMAR11 mailing list for the latest information on abstracts, registration information, etc.

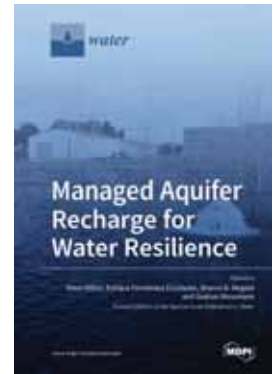


ISMAR11 website: <https://www.ismar11.net/>

While on the subject of ISMAR, our commission co-chairs have been gathering materials and information from many of the previous symposia, where copyright conditions allow. See more on the MAR website <https://recharge.iah.org/ismar>.

Just released - a book version of Managed Aquifer Recharge for Water Resilience, ed Peter Dillon, Enrique Fernández Escalante, Sharon B. Megdal and Gudrun Massmann. This is a printed edition of the Special Issue Managed Aquifer Recharge for Water Resilience that was

published in Water previously. Available to download (free/open access) or to buy in print. See <https://www.mdpi.com/books/pdfview/book/3558>



Finally, the topic of MAR will feature in both of the upcoming IAH congresses this year (Brazil and Belgium) - and Brazil's WhatsApp group on "Aquifer Recharge Management" already has good participation. Join in the conversation!



<https://recharge.iah.org/>

Urban Groundwater Network

It is hoped that the network will hold one virtual meeting this year; further news will follow in due course and we welcome your involvement.

We'd also like to draw attention to some resources from International Water Association as a number of well known individuals from the IAH family are also involved in the IWA groundwater specialist group. Over 2019 and 2020 the group published a series of articles in the IWA Source Magazine, namely:

- [Urban groundwater – mobilising stakeholders to improve monitoring](#)
- [Policy priorities for the boom in urban private wells](#)
- [Climate change: the utility groundwater role in supply security](#)

The IWA groundwater specialist group also held a webinar in October 2020 as part of the Climate Smart Utilities Programme. This webinar looked at the potential role of groundwater for water utilities and greater climate resilience. The webinar is available to view from the link below:

<https://iwa-network.org/learn/groundwaters-role-in-urban-water-supply/>



<https://urbangw.iah.org/>

2021: A SPECIAL YEAR FOR IAH CONGRESSES!

The Covid-19 pandemic challenges us all in many ways and not least in how conferences are managed. We have also had to change our plans, with the historic decision to run two congresses in 2021, in Sao Paulo and in Brussels. Brazil and Belgium will present a unique IAH experience to create an opportunity for many more people to participate. IAH members - see prize draw and application process for congress support for those on low incomes on page 20.

SECRETARIAT

47TH IAH CONGRESS, BRAZIL/HYBRID 2021 GROUNDWATER 4.0: CONNECTED, VISIBLE AND ETHICAL

Brazil is deservedly well known for its great football and music, a sure recipe of joy. The Brazilian community of hydrogeologists, proudly represented by the Brazilian National Chapter of the IAH, propose the city of São Paulo for the first congress organised jointly by the International Association of Hydrogeologists (IAH), the Brazilian National Chapter of IAH/Brazilian Groundwater Association (ABAS) and the Latin-American Groundwater Association for Development (ALHSUD). The event will help promote the connection of hydrogeologists from Latin America as never before and strengthen IAH's reach worldwide.



WhatsApp groups have been set up for the Congress Themes and online events also are taking place throughout the coming year. The themes are:

Management Aquifer Recharge	Groundwater and Climate change
Groundwater Flow, Water Cycle and Ecosystems	Karst and Fractured Aquifers
Groundwater and Gender	Geochemistry
Groundwater Pollution and Remediation	Transboundary Aquifers
Emerging Tools and Tech for Groundwater Investigation	Numerical Modeling

Share the joy and participate in the 47th IAH Congress in Brazil: 22-27 August 2021.

Organised by Brazilian National Chapter of IAH/Brazilian Groundwater Association (ABAS), Latin-American Groundwater Association (ALHSUD).

31/05/2021 : Registration: Early bird deadline

 [Brazil Congress website - https://iah2021brazil.org/en/](https://iah2021brazil.org/en/)

 www.facebook.com/iah.org

48TH IAH CONGRESS, BELGIUM 2021

INSPIRING GROUNDWATER



48th IAH Congress
BRUSSELS BELGIUM 2021
Inspiring Groundwater



In 2021 IAH will be 65 years old and our chapter will be 20 years old. So we thought it would be a good reason to celebrate all together with you, the world hydrogeology community, and put our little country on the water map.

Our Belgian chocolates, beers, waffles, fries and of course our water are already waiting for you in Brussels, Belgium and you'll be guided by the Smurfs, our special guest! Follow our preparations and be informed of all the steps towards a great event.

And what if things are not evolving the way we all hope? Well, we have a plan B, in order to allow the 48th congress to be a reality on 6-10 September 2021, whatever happens.

Topics are:

Groundwater/surface water interaction

Groundwater contamination

Groundwater and climate change

Geothermal and hydro-energy

Karst and fractured rock hydrogeology

Managed aquifer recharge

Mineral and thermal waters

Regional groundwater systems and transboundary aquifers

Coastal aquifers

Groundwater and ecosystems

Urban groundwater and resilience – resource management approaches and impacts

Hydrogeochemistry, groundwater age, paleogroundwater and isotopes in hydrogeology

Advances in forward and inverse groundwater modeling and open source tools for computational subsurface hydrology (uncertainty)

Advances in experimental and field methods in hydrogeology and for understanding of the critical zone (experimental design)

Groundwater governance, policy and management (drought)

Sustainable groundwater exploitation and well management

In a few words : we ARE ready to welcome you in Brussels.

30/06/2021 : Registration: Early bird deadline

 Belgium Congress website - <https://iah2021belgium.org/>

MAY 2021

From our sponsor...

When you put your name on something – you need to be sure!

For more than 40 years Van Walt has offered you high quality equipment backed by excellent service for your environmental research and monitoring. One of the key items of equipment we specialize in, because it's often at the heart of everything you do, is dataloggers. We supply a range, from water quality to plant sap sensors, loggers to measure precipitation through to pH and, for water level, our logger of choice is the LevelSCOUT.

In our opinion the LevelSCOUT 2X is the culmination of everything you need for reliably and accurately monitoring water levels. Over the years we have listened to our customers and what you expect and want from a logger and, with our partners in the US, Seametrics Inc, we have helped develop this improved and upgraded water level logger.



The LevelSCOUT is an instrument you can trust. It incorporates all Van Walt's experience of selling, servicing and repairing loggers with all the things you have asked for in an absolute level logger. The LevelSCOUT 2X is equipped with a 100,000-record memory. The unit is manufactured from a single piece of stainless steel so is solid and sinks quickly and easily down-well, plus double 'o' rings ensure extra resilience for extended life in the field.

It would be easy to talk about the long list of benefits of the LevelSCOUT 2X but when the manufacturer offers a market-leading 3-year warranty you should take notice. We have so much confidence in the instrument – we have put our money where our mouth is!

With fully replaceable batteries and the ability to retrospectively add or connect to telemetry the LevelSCOUT 2X is future proof and an environmental monitoring logger that is truly environmentally sustainable. Look after it and it could last a lifetime.



Not all level loggers are the same; similar – yes. You know what you like in a logger, but experience has taught us to look at more than the unit cost. Look at how up to date the technology is in the logger. How good, and easy to use, is the software; when was it developed and is the full suite included in the logger price. Does the software automatically check you are always using the latest version every time it is connected to the internet? Can your datalogger be serviced, repaired and your data retrieved locally?

A datalogger is at the heart of most monitoring cycles. Through our offices we sell and rent the LevelSCOUT 2X because we're proud of it - it has our name on it!



CORPORATE MEMBERSHIP AND OPPORTUNITIES

IAH would like to help more companies and organisations – and their staff – participate in global groundwater affairs and publicise their products and services.

We understand that corporate relationships should cater to different needs. Some companies and organisations may be seeking membership for their staff and perhaps a few additional benefits, whereas others may be more interested in publicising products or services to IAH members and those who receive information from us, including through our email communications and News & Information magazine, at meetings and events. In recognition of this, IAH now offers a choice of schemes, with some flexibility in our schemes. Contact info@iah.org for more details.

2021 - SELECTION

6-7 June – Online, free

Karst: From Top to Bottom

Multidisciplinary topics. Successive to the international course “Characterisation and Engineering of Karst Aquifers”, a multidisciplinary conference “Karst: From Top to Bottom” will be organised online (via Zoom) on 6-7 June 2021 as a contribution to the “International Year of Cave and Karst”. The conference is open to all, but is especially devoted to younger and talented karst researchers - those preferably, but not limited to, under the age of 40. Organised by Centre for Karst Hydrogeology of the University of Belgrade. Partners: UNESCO-IHP, IGRAC, Regional Waterworks of Montenegro Coast, City of Trebinje, Geological Survey of Montenegro and Geological Survey of Republic of Srpska B&H. <http://www.karst.edu.rs/en/index.html>

7-9 July – Online/Budapest

International Symposium on Geofluids

The symposium brings together scientists, professionals, stakeholders to share and discuss all kinds of aspects of geofluids, i.e. groundwater, geothermal energy, hydrocarbon, geogenic contamination, and hydrothermal mineral resources, with special emphasis on harmonized exploration and utilization. Topics and sessions include: Energy flow systems and related fluids in the lithosphere; Managed aquifer recharge and groundwater flow systems; Geoenery, thermal water and hydrocarbon systems; Natural contamination and hazards of geofluids; Fluid–rock interactions and hydrogeochemical reaction. Organised by Organised by the József and Erzsébet Tóth Endowed Hydrogeology Chair and Foundation and by the Regional Groundwater Flow Commission of IAH, in scientific collaboration with the ENERAG H2020 project of Eötvös Loránd University. <http://geofluids2020.hu/>

23-27 August– Online

SIWI World Water Week

In 2021 World Water Week will be held as a full-scale digital event on 23-27 August. We're promised a week of intense learning and collaboration on the theme Building Resilience Faster, to develop solutions to address climate change and other water-related challenges. Organised by SIWI. <https://www.worldwaterweek.org/>

22-27 August – BRAZIL/ONLINE HYBRID EVENT

47th IAH Congress – IAH 2021 Brazil

GROUNDWATER 4.0: CONNECTED, VISIBLE AND ETHICAL Organised by Brazilian National Chapter of IAH/ Brazilian Groundwater Association (ABAS), Latin-American Groundwater Association (ALHSUD). <https://iah2021brazil.org/en/>

6-10 September - BELGIUM

48TH IAH Congress - IAH 2021 Belgium

Inspiring Groundwater - We'll be there, ready to host - whatever happens. Will you? Organised by IAH Belgium (CBH-BCH). www.iah2021belgium.org

26-29 September – Niagara Falls, Canada

GeoNiagara 2021

The Canadian Geotechnical Society (CGS) in collaboration with the Canadian National Chapter of the International Association of Hydrogeologists (IAH-CNC) invite you to GeoNiagara 2021, the 74th Canadian Geotechnical Conference and the 14th Joint CGS/IAH-CNC Groundwater Conference. The theme is “Creating a Sustainable and Smart Future” and the conference will feature technical sessions on subjects of broad interest in the geotechnical and hydrogeological fields. <https://www.geoniagara2021.ca/>



<https://iah.org/events>

For a fuller list of conferences, events and meetings and to submit an event



Share knowledge and memories... @iahgroundwater #iahgroundwater

