

Dear Ladies and Gentlemen, dear MAR family, good morning!

Attached some MAR-related news for 2021 December.

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## 11<sup>st</sup> International Symposium on Managed Aquifer Recharge, ISMAR 11. REGISTRATION ALREADY OPEN

On behalf of GRA, ISMAR 11 organizers and the IAH-MAR Commission, we cordially invite you to attend the 11<sup>th</sup> International Symposium on Managed Aquifer Recharge (ISMAR11), April 2022 in Long Beach, CA.



**11<sup>th</sup> INTERNATIONAL SYMPOSIUM ON  
MANAGED AQUIFER RECHARGE**

APRIL 11 - 15  
**2022**  
LONG BEACH, CA

**A KEY TO SUSTAINABILITY**

**VISIT THE ISMAR 11 WEBSITE FOR MORE INFORMATION!**  
This event will be hosted by GRA and Co-Hosted by AHS and OCWD

**WORKSHOP DETAILS**  
**FIELD TRIP DETAILS**

**DATE AND TIME**  
Mon, Apr. 11 - Fri, Apr. 15, 2022  
8 a.m. - 5 p.m.  
(GMT-0800) America/Los\_Angeles

**LOCATION**  
**Hilton Long Beach**  
701 West Ocean Boulevard  
Long Beach, CA 90831-3102  
United States of America

Stay at the Hilton Long Beach hotel and take advantage of its superb location near the vibrant downtown and business district. Take a walk along the beautiful beach situated one mile away. Unwind in the spacious pool, or book a sightseeing tour to discover the hidden treasures of Long Beach.



**PRICING**

IAH/AHS/GRA Member (Conference Only):  
Super Early Bird  
**\$550.00**  
(ends 01/15/2022)

Non-Member (Conference Only): Super  
Early Bird  
**\$675.00**  
(ends 01/15/2022)

Accredited Developing Country  
(Conference Only): Super Early Bird  
**\$400.00**  
(ends 01/15/2022)



ISMAR 11 website: <https://www.ismar11.net/>

GRA event page: <https://lnkd.in/gXn6YNz>

Register as a Sponsor or Exhibitor: <https://lnkd.in/g6Sb6ur>

View the Sponsorship Opportunities booklet: <https://lnkd.in/gKqA4nh>

Along with the email - Facebook, LinkedIn, Instagram and Twitter all have posts about ISMAR11 on GRAC: [www.grac.org](http://www.grac.org)

Preliminary agenda: <https://www.grac.org/media/files/files/4407fbbd/ismar-2022-preliminary-agenda-flyer.pdf>

**SUPER-EARLY BIRD REGISTRATION UNTIL January 15<sup>th</sup>:**

<https://www.grac.org/events/272/>

## ISMAR 12. Call for expressions of interest

IAH, IAH-MAR Commission, UNESCO and ASCE call for the expressions of interest.

Those institutions willing to host the premier symposium on MAR, ISMAR 12 in 2025, please, inform IAH-MAR Commission co-chairs: <https://recharge.iah.org/contact-us>

The hosting place will be announced in ISMAR 11 's plenary.



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

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## NEW MAR OR MAR-RELATED IMPORTANT PUBLICATIONS

### Selection of managed aquifer recharge practices in Latin America



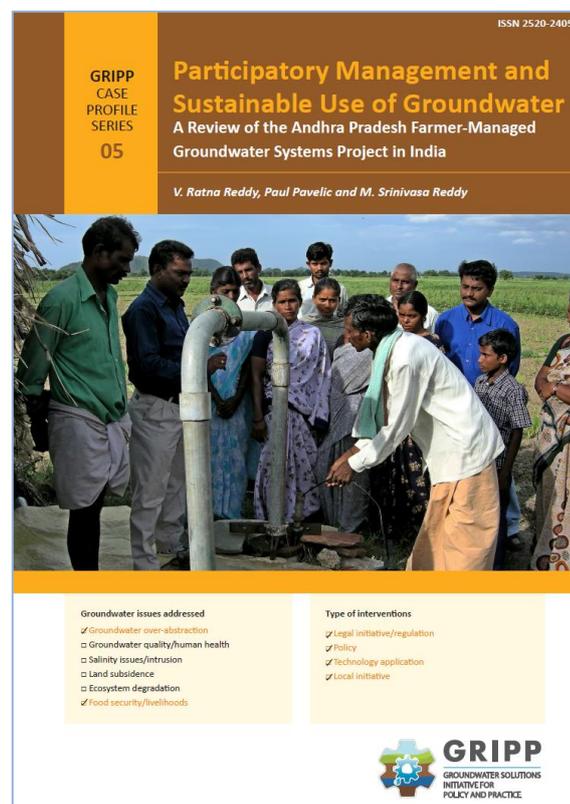
Authors: Research Group INOWAS, Department of Hydrosiences, Faculty of Environmental Sciences, Technische Universität Dresden (TUD), Germany. Centre for Environmental Studies and Biodiversity (CEAB), Universidad del Valle de Guatemala (UVG), Guatemala.

The overall goal of the DIGIRES project (“Digitally-enabled green infrastructure for sustainable water resources management in Latin America and the Caribbean”) is the development and utilisation of ICT-based tools, coupled with citizen science observations, for the design and implementation of managed aquifer recharge (MAR) as nature-inspired solution for sustainable water resources management in Latin America and the Caribbean. Read more and download... 27 pg, 8,9 Mb:

[https://www.researchgate.net/publication/357188200\\_Selection\\_of\\_managed\\_aquifer\\_recharge\\_practices\\_in\\_Latin\\_America](https://www.researchgate.net/publication/357188200_Selection_of_managed_aquifer_recharge_practices_in_Latin_America)

## **New MAR-related GRIPP publication: Participatory Management and Sustainable Use of Groundwater A Review of the Andhra Pradesh Farmer-Managed Groundwater Systems Project in India**

Authors: V. Ratna Reddy, Paul Pavelic and M. Srinivasa Reddy



This GRIPP Case Profile assesses whether the proactive involvement of rural communities in the management of groundwater positively contributes towards sustainable resource use. The assessment uses the long-term (2003-2013) Andhra Pradesh Farmer-Managed Groundwater Systems (APFAMGS) project in India as a case study. Implemented across seven districts, the assessment is based on a critical review and synthesis of existing literature and complementary field visits conducted five years after project closure... read more and download:

<https://gripp.iwmi.org/wp-content/uploads/sites/2/2021/12/GRIPP-Case-Profile-Series-Issue-5.pdf>

## Future book. Invitation to contribute. Artificial recharge to groundwater and rain water harvesting: issues and learning from the developing countries

### ARTIFICIAL RECHARGE TO GROUNDWATER AND RAIN WATER HARVESTING: ISSUES AND LEARNING FROM THE DEVELOPING COUNTRIES

#### Call for Contributions

#### ABOUT THE MONOGRAPH

**G**lobally, groundwater is one of the most critical natural resources. With its contributions to agriculture, potable water supply, industries and its immense economic and ecological importance, this resource plays a great role in meeting the Sustainable Development Goals (SDGs). Supporting billions of small and marginal farmers around the world, it acts as a hedge against water insecurity, drought, food vagaries, and water borne diseases. The relatively higher resilience of groundwater against the onslaught of climate change is widely accepted. Rainwater Harvesting and Artificial Recharge is considered as the key supply-side intervention to sustain the resilience of water and food security of communities around the world. The rationale is to recharge and store more water underground for enhanced and sustained water access by plants, ecosystems, and

people. Storing water in soil and aquifer protects the resource from accelerated evaporation due to temperature rise under climate change. It is relatively cheap to implement, and obviates relocation of people from the flooding areas in case of major dams. Many practices linked to these two technique (artificial groundwater recharge and rain water harvesting) are on trial around the world. The knowledge accumulated and the innovations adopted are reported to produce better outcomes. The impact of these interventions on sustaining, and in many cases, rejuvenating the groundwater resource are encouraging. However, success depends on wide ranging factors like biophysical, technical, agricultural, ecological, socio-economic, institutional and legal issues. Having strong ownership and engagement with local communities and stakeholders

is the key issue. The interventions need to be integrated into broader water, land and ecosystem management policies and practices. The Proposed monograph presents success stories and challenges encountered, science and technology being adopted, and the socio-economic impact created by rainwater harvesting and artificial recharge in developing countries of the world. Government supported initiatives through policymaking, regulation and ongoing large projects from different countries are showcased in this monograph along with community driven approaches. The roadmap for enhancing benefits from such interventions, particularly in water-stressed regions of emerging economies, located in different climatic, geographical and geologic regions, will also be discussed.

#### ABOUT THE NAM S&T CENTRE

**T**he Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi is an Inter-governmental Organization with a Membership of 47 countries spread over Asia, Africa, Middle East and Latin America. The Centre was set up in 1989 in New Delhi, India in pursuance of the decisions of various NAM Summits with the objective of promoting mutually beneficial cooperation among the NAM and other developing countries for collective self-reliance.

The Centre undertakes a variety of programmes, including organization of International Workshops, Conferences and Training Courses, and implementation of Collaborative S&T Projects. It also offers short term Research Fellowships to Scientists and Technologists from developing countries in association with the Centres of Excellence in various countries. The Centre also brings out books, monographs and other scientific publications in different subjects that are of interest to developing countries. The Centre's activities provide opportunity

for scientist-to-scientist contact and interactions, familiarizing participants on the latest developments and techniques in the subject areas, identification of the requirements of training and expert assistance, locating technologies for transfer between the Members and other developing countries, and dissemination of STI information etc. In addition, the Centre encourages Academic-R&D Industry interactions in the developing countries through its NAM S&T Industry Network.



#### Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre)

Core-6A, 2nd Floor, India Habitat Centre, Lodhi Road, New Delhi-110003, India. Tel: +91-11-24645134, 24644974 Fax: +91-11-24644973  
E-mail: namstcentre@gmail.com Website: <http://www.namstc.org>

New Monograph Series

IN ASSOCIATION WITH



MANAV RACHNA INTERNATIONAL  
INSTITUTE OF RESEARCH AND STUDIES  
MANAV RACHNA INTERNATIONAL  
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GRIPP  
GLOBAL RISK INTEGRATED  
POLICY AND PRACTICE  
LED BY  
IWMI  
INTERNATIONAL WATER  
MANAGEMENT INSTITUTE

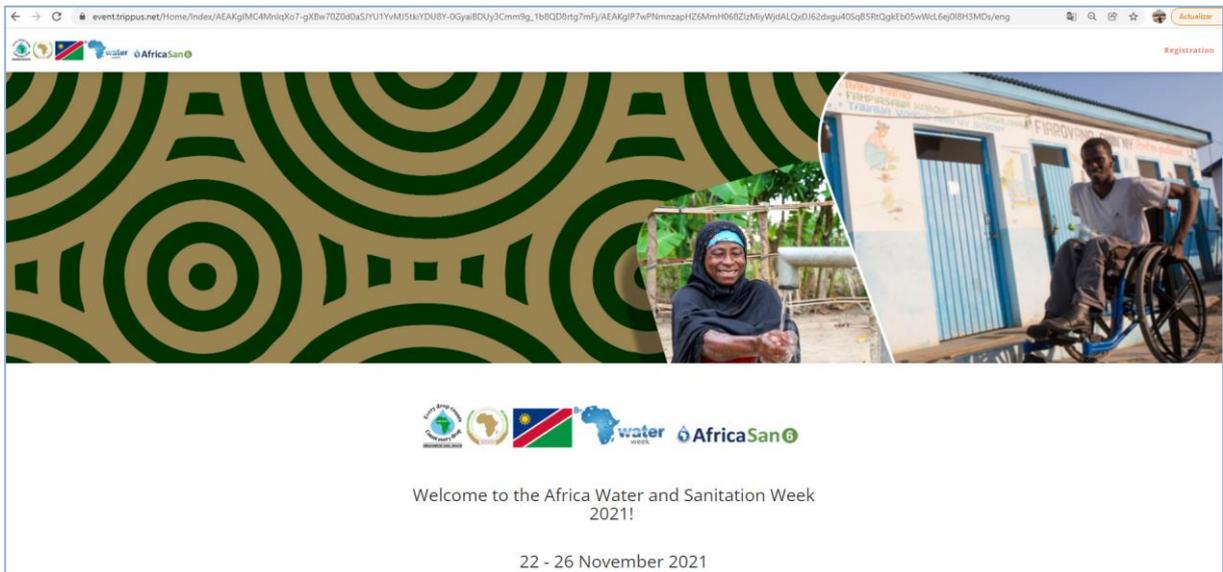
Thank you Drs. Dipankar and Vilholth for reporting.

## CONFERENCES

### 8<sup>th</sup> African Water and Sanitation Week. 22 - 26 November 2021

The African Water and Sanitation Week for 2021 included a session titled Managed Aquifer Recharge and its role to climate change in Africa, and features speakers from Acacia Water, Department of Water and Sanitation, International Water Management Institute (IWMI), Minia University, Cranfield University and GEOSS South Africa (Pty) Ltd.

Registration link: <https://lnkd.in/dmdkSHH3>



Results will be announced shortly.

Thank you Kess Murray for reporting

## International Conference Smart Water Chihuahua, 2021 (results in Spanish)

Smart water counted on MAR presentations. The results of the conference are already available on line:  
[https://drive.google.com/drive/folders/1qKk77IK5PEb6emfGj-7X6wyp\\_GHXujvP](https://drive.google.com/drive/folders/1qKk77IK5PEb6emfGj-7X6wyp_GHXujvP)



<https://www.jcas.gob.mx>  
[https://bit.ly/ProgramaFinal\\_Smart\\_Water](https://bit.ly/ProgramaFinal_Smart_Water)  
<https://www.jcas.gob.mx/peh2040/>

Thank you Dr. Carmen Navarro and Miguel A. González for reporting.

## International Conference on Groundwater - key to UN SDGs. Opportunity for a MAR session

“If you are interested to co-animate a given topic, already proposed by an animator, you can also contact the chair of the Conference program. He will put you in touch with the animator(s): [contact@cfh-aih.fr](mailto:contact@cfh-aih.fr)”



**INTERNATIONAL CONFERENCE**  
**GROUNDWATER, KEY TO THE SUSTAINABLE DEVELOPMENT GOALS**  
**PARIS - May 18 -20, 2022**

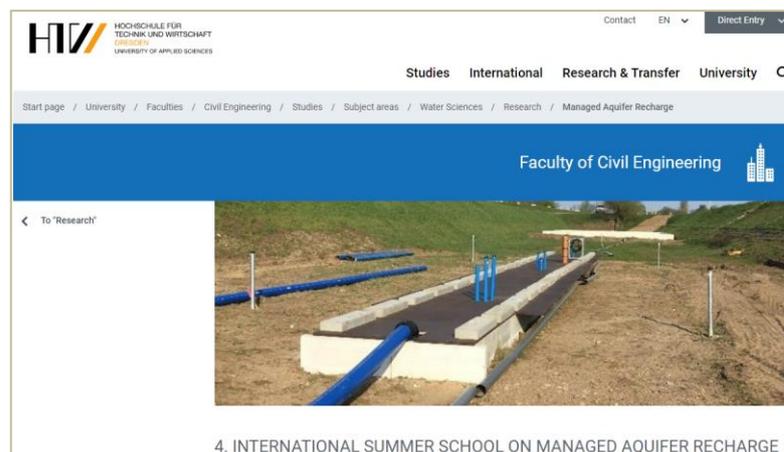
CFH IAH-AIH UNESCO Intergovernmental Hydrological Programme french water partnership fwp pfe partenariat français pour l'eau Organisation des Nations Unies pour l'éducation, la science et la culture sous le patronage de la Commission nationale française pour l'UNESCO MINISTÈRE DE LA TRANSITION ÉCOLOGIQUE AGENCE eau SEINE NORMANDIE SORBONNE UNIVERSITÉ

ORGANIZED BY IAH-CFH, UNESCO-IHP, THE FRENCH WATER PARTNERSHIP, UNDER THE PATRONAGE OF THE FRENCH NATIONAL COMMISSION FOR UNESCO AND WITH THE SUPPORT OF THE MINISTRY FOR ENVIRONMENT, SEINE-NORMANDY WATER AGENCY, AND SORBONNE UNIVERSITY

The MAR Commission are initiating actions to be there...  
DEADLINE FOR ABSTRACT SUBMISSION: 21<sup>st</sup> January 2022

## COURSES AND WEBINARS

### MARISS 4 International Summer School on Managed Aquifer Recharge. 29.08. - 09.09.2022, Dresden, Germany



The Division of Water Sciences at the Dresden University of Applied Sciences is organising the 4th International Summer School "Managed Aquifer Recharge" (MARISS) from 29.08 to 09.09.2022. Due to climate change, groundwater recharge, in addition to demand management, is an important measure to conserve, convey and safeguard groundwater systems and to protect and improve water quality. Managed aquifer recharge - MAR-, also called groundwater recharge, water banking

and artificial recharge, is the targeted recharge of water in aquifers for later recovery or environmental benefit. Read more... <http://www.htw-dresden.de/mariss>

**Save the date: International Conference on Riverbank Filtration, 27-29 September 2022 in Dresden, Germany**

The conference is organised by the University of Applied Sciences Dresden (more information will be provided in the next newsletters).



Thank you Dr. Catalin Stefan for reporting.

**MORE ACTIONS**

**Whatsapp group on Aquifer Recharge Management**

Scan the QR code.



WhatsApp Group

Aquifer recharge management

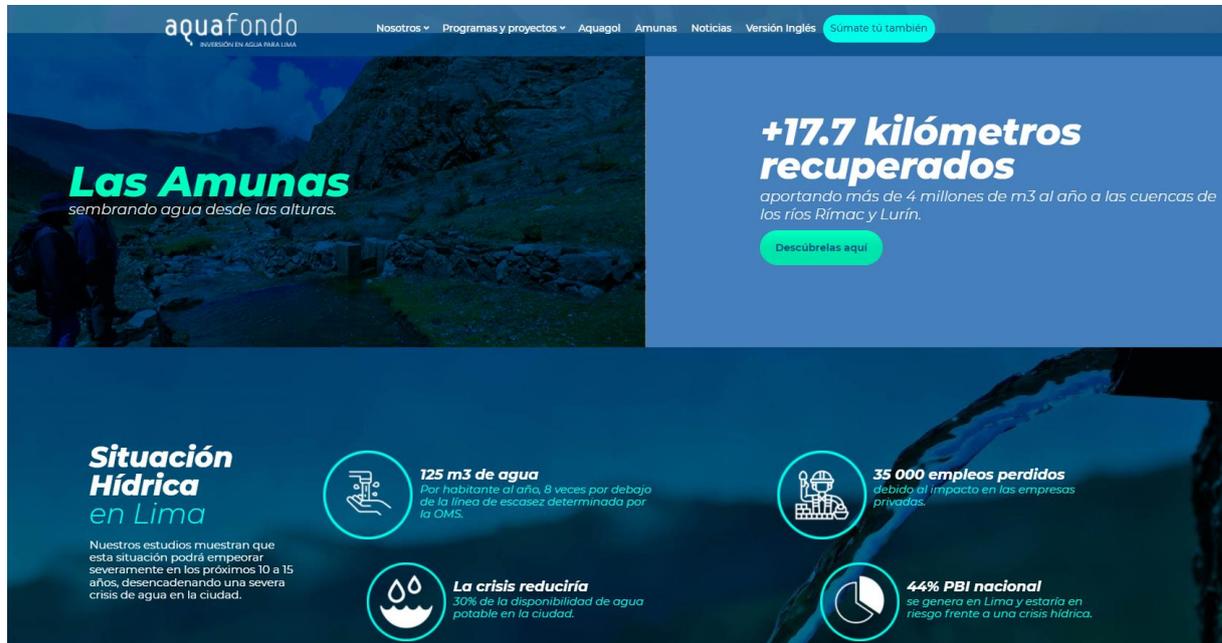


**Austrian Embassy presents Energy Globe Award to Aquafondo for MAR project in Peru**

Aquafondo, the Water Fund for Lima and Callao, received the "National Energy Globe Award" —one of the world's most respected environmental awards— for its

sustainable water resources management project in Chillón, Rimac, and Lurín river basins, under the motto "Sowing water. For more and better water for Lima."

<https://andina.pe/agencia/noticia-austrian-embassy-presents-energy-globe-award-to-aquafondo-for-project-in-peru-873273.aspx>



**aquafondo**  
INVESTICIÓN EN AGUA PARA LIMA

Nosotros ▾ Programas y proyectos ▾ Aquagol Amunas Noticias Versión Inglés Sumate tu también

## Las Amunas

sembrando agua desde las alturas.

### +17.7 kilómetros recuperados

aportando más de 4 millones de m<sup>3</sup> al año a las cuencas de los ríos Rimac y Lurín.

Descubrelas aquí

### Situación Hídrica en Lima

Nuestros estudios muestran que esta situación podrá empeorar severamente en los próximos 10 a 15 años, desencadenando una severa crisis de agua en la ciudad.

- 125 m<sup>3</sup> de agua**  
Por habitante al año, 8 veces por debajo de la línea de escasez determinada por la OMS.
- 35 000 empleos perdidos**  
debido al impacto en las empresas privadas.
- La crisis reduciría**  
30% de la disponibilidad de agua potable en la ciudad.
- 44% PBI nacional**  
se genera en Lima y estaría en riesgo frente a una crisis hídrica.

## The quality of water produced by Turku Region Water is rated the best in the world by Unesco (a MAR-related area in Finland)

Turku Region Water, press release 1.12.2021:

The water quality produced by Turku Region Water in Finland has been evaluated among the best in the world. The company is one of the largest suppliers of drinking water using managed aquifer recharge. The contribution of the Unesco book is a tribute to the Finnish water know-how, as the shortage of groundwater is a global challenge to be solved...

More info: [www.turunseudunvesi.fi/en](http://www.turunseudunvesi.fi/en)

<https://unesdoc.unesco.org/ark:/48223/pf0000379962>

## In Memoriam. Professor Ramón Llamas

The professor Ramón Llamas, one of the fathers of hydrogeology in Spain passed away this Dec 11<sup>st</sup>. He was President of the International Association of Hydrogeologists from 1984 to 1989 and an outstanding contributor to the hydrogeology.



An obituario has been published in the IAH main website:

<https://iah.org/news/in-memoriam-professor-ramon-llamas-1931-2021>

The IAH-MAR Commission, with plenty of students of the professor (he was Director of one co-chair's PhD Tribunal), wants to recognize his trajectory, legacy and kindness. Thank you Professor!!

### **Old publications on MAR (another drop of nostalgia...). Ramón Llamas's interview**

The selected drop is... a Professor Ramón Llamas's interview.

It is in Spanish and it deserves the pain to use Google translator or equivalent...

<https://www.redagricola.com/cl/ramon-llamas-catedratico-la-universidad-complutense-madrid-la-escasez-agua-hoy-mito/>

The interview contains two specific excerpts about MAR.

redagricola.com/d/ramon-llamas-catedratico-la-universidad-complutense-madrid-la-escasez-agua-hoy-mito/

Cultivos ▼ Tecnología ▼ Empresas Lo último Educación Papel digital Films 360 Agrifood365 Publicidad Contacto

08 DE NOVIEMBRE DE 2016

### Ramón Llamas, catedrático de la Universidad Complutense de Madrid: "La escasez de agua hoy es un mito"



El título de artículo es la opinión de un experto internacional, español, que lleva casi siete décadas trabajando en hidrología. Pero además habla de la 'hidroesquizofrenia' y la 'aridez mental' que hay en los diferentes países, para lo cual, asegura, aún no hay cura conocida. Ramón

**MAXIMIZA COLOR EN UVAS DE ALTA CALIDAD**

**Próximas Conferencias**

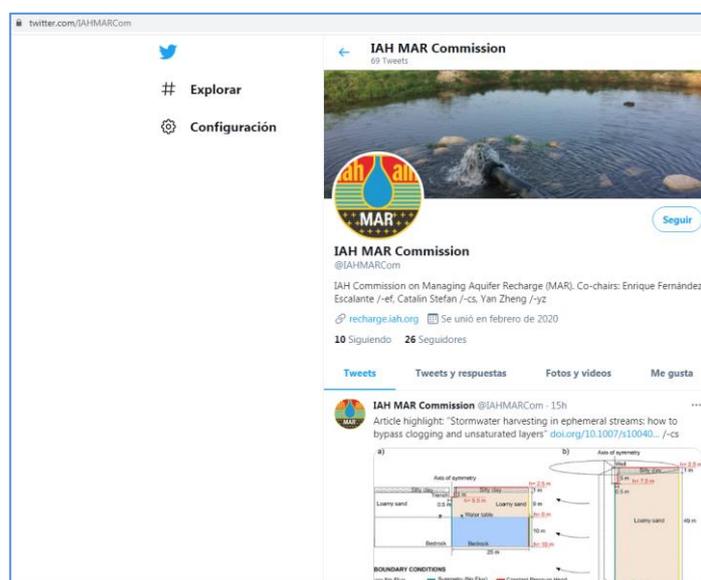
- 06 DE DICIEMBRE DE 2021 Conferencia Redagricola Ica - Perú 2021
- 06 DE DICIEMBRE DE 2021 Conferencia Redagricola Perú Norte 2021

**Cursos de tu interés**

- 05 DE DICIEMBRE DE 2021 2do Curso Internacional de Cítricos Redagricola

## IAH Commission on Managing Aquifer Recharge. Twitter account

Please, follow the Twitter account of the IAH Commission on Managing Aquifer Recharge at <https://twitter.com/IAHMARCom>



## Previous IAH-MAR Newsletters

Please, remember that you can access the previous newsletters in our website: <https://recharge.iah.org/newsletters>

And that's all by now... please, keep reporting ([dinamar@tragsa.es](mailto:dinamar@tragsa.es)).

Thank you very much for your kind attention  
Best regards

Dr. Enrique Fernández Escalante of behalf of the IAH MAR Commission co-chairs,  
Catalin Stefan and Yan Zheng.

2021 December 21<sup>th</sup>



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Please, remember you can book freely in the IAH MAR Commission Forum:  
<https://lists.flinders.edu.au/mailman/listinfo/iah-mar.listcgs> to stay informed on  
MAR issues and to share your info.

### Sister sites:

<http://china-mar.ujn.edu.cn/>



<https://dinamar.traqsa.es/>



@4dina\_mar