



Food and Agriculture Organization of the United Nations



INTERNATIONAL SYMPOSIUM ON THE USE OF

NONCONVENTIONAL WATER TO ACHIEVE FOOD SECURITY

14-15 NOVEMBER 2019

CASA DE AMÉRICA, MADRID, SPAIN

@FAOWATER @MAPAGOB



RECLAIMED WATER



FOG HARVESTING



CLOUD SEEDING



RAINWATER HARVESTING



DESALINATION



FINANCING

OFFICIAL SYMPOSIUM PROGRAMME

INTERNATIONAL SYMPOSIUM ON THE USE OF NONCONVENTIONAL WATERS

The Food and Agriculture Organization of the United Nations (FAO) and the Government of Spain are co-hosting the International Symposium on the Use of Non-Conventional Waters for Achieving Food Security in Casa de América, Madrid, Spain, on November 14 and 15, 2019.

During the event, we will share experiences on reclaimed wastewater, desalinated water, and rainwater, to fog and cloud harvesting. The event presents an opportunity to discuss new mechanisms of collaboration between businesses, technology suppliers, government and other stakeholders to accelerate the needed transitions in the water and agri-food sector. During the event, we will also share the government policy incentives as well as regulatory and financing changes to enable adoption of technology innovations to achieve the Sustainable Development SDGs.

PROGRAMME COMMITTEE

CHAIR OF COMMITTEE

Sasha Koo-Oshima, Deputy Director, Land and Water Division, FAO

CO-CHAIRS

Marta Cimas Hernando, Deputy Director of International Relations and EU Affairs, MAPA

María Fernández Sanz, Deputy Director Irrigation and Rural Infrastructures, MAPA

ORGANIZING TEAM (In alphabetical order by last name)

Maki Abdourahman	Land and Water Officer, Sub Regional Office for North Africa, FAO
Marina Alvarez Fernández	Head of International Relations – FAO, MAPA
María Felicia Arnal	Water and Climate Change Consultant, Land and Water Division, FAO
Ines Beernaerts	Land and Water Officer, Sub Regional Office for Meso-America, FAO
René Castro Salazar	Assistant Director General, Climate, Biodiversity, Land and Water Department, FAO
Rosa Collado Conde	Senior Adviser, Directorate Rural Development, Innovation and Forest Policy Directorate, MAPA
Marlos De Souza	Senior Officer, Land and Water Division, FAO
Maryse Finka	Office Assistant, Land and Water Division, FAO
Manuel Flores Ruíz	WASAG Consultant, Land and Water Division, FAO
Antonio Flores Lorenzo	Spanish Permanent Representative to FAO
Patricia Mejías Moreno	Land and Water Officer, Land and Water Division, FAO
Yo Nishimura	Associate Professional Officer, Land and Water Division, FAO
Patricia Pascau	Communications Expert, Information Office for Spain and Andorra, FAO Spain
Ana Pellicer Vázquez	Program Manager, Casa de América
Sofia Ramirez Fonda	Office Assistant, Land and Water Division, FAO
Guadalupe Rubio Pinillos	Technical Director, Directorate Rural Development, Innovation and Forest Policy Directorate, MAPA
Enrique Yeves	Head of Information Office for Spain and Andorra, FAO Spain

MESSAGE FROM THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS - FAO

Freshwater scarcity already affects every continent, and it is expected to intensify over time due to an increase in demand from all water users and a rise in population. There is a growing need for targeted investments in water and energy efficient infrastructures. Additional factors of climate change and erratic rainfall patterns will pose risks to agriculture with impacts on food security in water scarce regions.

The global water community at large supports efforts in water-scarce countries and communities to go beyond conventional water resources and plan for nonconventional water resources to augment supply. This support stems from the objective to narrow the water demand-supply gap; and to achieve Sustainable Development Goals (SDGs) SDG1, SDG2, SDG3, SDG6, SDG7, SDG9, SDG13 and SDG14, calling collectively for achieving zero hunger and for achieving clean water and sanitation for all by the year 2030.

The water sector is in a pivotal moment, and finding innovative solutions is key to meeting food and water security!

Our gratitude is extended to all the participants, the speakers, the Programme Committee, the Ministry of Agriculture, Fisheries and Food (MAPA), and FAO's Land and Water Team in the steadfast contribution to the joint endeavors of this highly anticipated event.

We look forward to your fruitful contribution to this Symposium,



René Castro Salazar
Assistant Director General,
Climate, Biodiversity,
Land and Water Department
FAO



Sasha Koo-Oshima
Deputy Director,
Land and Water Division
Head of Water
FAO



MESSAGE FROM THE MINISTRY OF AGRICULTURE, FISHERIES AND FOOD OF SPAIN - MAPA

Water is life. The International Symposium on the Use of Nonconventional Waters to Achieve Food Security is a unique opportunity to share Spanish wide experience on nonconventional water management. Irrigation systems represent 60-70 percent of water withdrawals in Spain. Considering the need to meet food demand from global population growth, we must strive for a sustainable use of this natural resource while contributing to the goals and targets of UN Agenda 2030.



María Dolores Ocaña Madrid
Under-Secretary of
Agriculture,
Fisheries and Food,
MAPA



MESSAGE FROM THE GLOBAL FRAMEWORK ON WATER SCARCITY IN AGRICULTURE - WASAG

WASAG global partnership aims at delivering concrete outcomes towards the goal for addressing water scarcity through six partner-led Working Groups focusing on: water and migration, drought preparedness, financing mechanisms, water and nutrition, sustainable agricultural water use and bio saline agriculture. Non-conventional sources of water are critically important as part of the solution to address water scarcity. For WASAG, the International Symposium on the Use of Nonconventional Water to Achieve Food Security will be an important step forward in our quest to deal with water scarcity.



Torkil Jonch Clausen
Chair,
WASAG

MESSAGE FROM THE INTERNATIONAL WATER ASSOCIATION - IWA



Kalanityh Vairavamoorthy
Executive Director,
IWA

We are dealing with a system of systems and hence we need systems-based responses – something the IWA supports and pursues. Sound management of water, and the attainment of end goals such as the universal access to safe water and sanitation, can only be achieved with broad institutional progress and the efforts of all relevant stakeholders. Reuse of wastewater can supplement agricultural supplies directly, as a non-conventional water resource, or indirectly ease pressure on sources used by agriculture by reducing the demand of other sectors.

AGENDA

Thursday, 14 November 2019

PLENARY AND TECHNICAL SESSIONS

ENTRANCE BY CALLE MARQUÉS DEL DUERO, 2

Time	Title
9:00 - 9:30	REGISTRATION Anfiteatro de Casa de América
9:30 - 10:30	OPENING CEREMONY Plenary Room: Anfiteatro de Casa de América (EN-SPA-FR interpretation available) Master of Ceremony: Mr Enrique Yeves , Head of Information Office for Spain and Andorra, FAO Welcome remarks <ul style="list-style-type: none">▪ Mr René Castro de Salazar, Assistant Director-General, Climate, Biodiversity, Land and Water Department, FAO▪ Ms Danielle Gaillard Picher, Vice Chair of the Global Framework on Water Scarcity in Agriculture (WASAG)/ Director of Policy and Programs, World Water Council (WWC)▪ Ms Aina Calvo Sastre, Director, Spanish Agency of International Cooperation (AECID), Spain▪ Ms María Dolores Ocaña Madrid, Under-Secretary General, Ministry of Agriculture, Fisheries and Food (MAPA), Spain Keynotes <ul style="list-style-type: none">▪ Mr Kalanithy Vairavamoorthy, Executive Director, International Water Association (IWA)▪ Ms Cristina Gallach, High Commissioner of the Spanish Government for the 2030 Agenda Closing of Opening Ceremony (and announcement of next Session start time)
10:30 - 11:00	NETWORKING COFFEE BREAK FOR PARTICIPANTS (GROUP PICTURE IN THE GARDEN)
11:00 - 12:30	TECHNICAL SESSION 1 – ACHIEVING THE SDGS Plenary Room: Anfiteatro de Casa de América (EN-SPA-FR interpretation available) Title: "How to make it happen" Chair: Ms Sasha Koo-Oshima , Deputy-Director, Land & Water Division, FAO Panel for setting the scene on Finance, Policy and Technology: <ul style="list-style-type: none">▪ Mr Shony Goldberger, Head of the Jerusalem District, Ministry of Environment, Israel▪ Mr Claudio Bacigalupi, International Cooperation and Development Unit – Environment, Natural Resources, Water, European Commission (EC)▪ Ms Teresa Navarro, Director of Water and Sustainability, University of Murcia, Spain▪ Ms Heba Ahmed, Water Resources and Irrigation Specialist, World Bank▪ Mr Oriol Bellot, Head of Projects Department, Suez Agriculture▪ Ms Valeria Silvestri, Water Management and Rural infrastructure Expert, International Fund for Agriculture Development (IFAD)▪ Ms Maria Lahore, Principal Executive, Development Bank of Latin America (CAF) Questions and Answers Wrap-up by the Chair Rapporteur: Mr Francesc Hernández , Professor in Water Economics, University of Valencia

Time	Title
12:30 - 14:00	LUNCH BREAK
14:00 - 15:30	<p>TECHNICAL SESSION 2 – NONCONVENTIONAL WATER & FOOD SECURITY</p> <p>Plenary Room: Anfiteatro de Casa de América</p> <p>Title: "The Untapped opportunities"</p> <p>Chair: Mr Marlos de Souza, Senior Officer, Land and Water Division, FAO</p> <p>Thematic Presentations</p> <ul style="list-style-type: none"> ▪ Ms Aslihan Kerc, Chair, Global Wastewater Initiative, Turkish Water Institute (SUEN) ▪ Mr Wang Yaosheng, Professor, Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Science (CAAS) ▪ Mr Ahmed Uleimat, ASG for Labs and Quality Affairs, Water Authority, Ministry of Water and Irrigation, Jordan ▪ Ms Natalia Carbonell, Technical Manager, State Society of Agricultural Infrastructure, MAPA, Spain ▪ Ms Akissa Bahri, Former Director, African Water Facility (AWF), Tunisia ▪ Mr Andrés del Campo García, President, National Federation of Irrigators' Communities (FENACORE), Spain <p>Questions and Answers</p> <p>Wrap-up by the Chair</p> <p>Rapporteur: Mr James D. Oster, Department of Environmental Sciences, University of California</p>
15:30 - 16:00	NETWORKING COFFEE BREAK
16:00 - 17:30	<p>PARALLEL SESSION 1.1 – DESALINATION</p> <p>Room: Sala Simón Bolívar</p> <p>Title: "Advancing Desalination: reducing energy consumption and environmental footprint"</p> <p>Chair: Mr Kalanithy Vairavamoorthy, Executive Director, International Water Association (IWA)</p> <p>Thematic Presentations</p> <ul style="list-style-type: none"> ▪ Mr Zaidan AbuZuhry, WASH Officer, Seawater Desalination Plant Project, Nations Children's Fund (UNICEF) ▪ Mr Antonio Borrero, Director, Africa and Europe, Water Department, Abengoa, Spain ▪ Mr Nicholas Sloane, Director, Resolve Marine Group, Cape Town, South Africa ▪ Mr Nikolay Voutchkov, DTRI and Saline Water Conversion Cooperation, Saudi Arabia ▪ Mr Domingo Zarzo Martínez, Technical and Innovation Manager, SACYR Water Services, Spain ▪ Ms Dionysia Lyra, International Centre on Biosaline Agriculture (ICBA), United Arab Emirates <p>Facilitated panel discussion / Questions and Answers</p> <p>Wrap-up by the Chair</p> <p>Rapporteur: Mr Mark Person, Department of Earth Environmental Sciences, New Mexico Institute of Technology</p>

Time	Title
16:00 - 17:30	<p>PARALLEL SESSION 1.2 – FIT FOR PURPOSE WATER REUSE</p> <p>Plenary Room: Anfiteatro de Casa de América</p> <p>Title: "Accelerating implementation"</p> <p>Chair: Ms Birguy Lamizana-Diallo, Programme Officer, Wastewater Initiative, UN Environment</p> <p>Thematic Presentations</p> <ul style="list-style-type: none"> ▪ Mr Enrique Fernández Escalante, Tragsa Group/International Association of Hydrogeologists (IAH), Spain ▪ Mr James D. Oster, Department of Environmental Sciences, University of California ▪ Mr Javier Mateo-Sagasta, Coordinator-Water Quality, International Water Management Institute (IWMI) ▪ Mr Redouane Choukr-Allah, Professor at IAV Hassan II Agadir, Morocco ▪ Mr Falk Momber, Planning Officer, Water, Wastewater and Waste Management, GIZ, Germany ▪ Ms Ana Allende Prieto, Senior Researcher, Center of Edaphology and Applied Biology-Superior Council of Scientific Investigation (CEBAS-CSIC), Spain <p>Facilitated panel discussion / Questions and Answers</p> <p>Wrap-up by the Chair</p> <p>Rapporteur: Mr Nikolay Voutchkov, DTRI and Saline Water Conversion Cooperation, Saudi Arabia</p>
17:30 - 19:30	CULTURAL EVENT – BUS MADRID CITY TOUR (2h approx.)

Friday, 15 November 2019

PLENARY AND TECHNICAL SESSIONS

ENTRANCE BY CALLE MARQUÉS DEL DUERO, 2 (MARQUÉS DEL DUERO STREET, 2)

Time	Title
8:30 - 9:00	REGISTRATION
9:00 - 10:30	<p>TECHNICAL SESSION 3 – TECHNOLOGY & INNOVATION</p> <p>Plenary Room: Anfiteatro de Casa de América</p> <p>Title: "Scaling up technology and innovation"</p> <p>Chair: Mr Vladimir Smakhtin, Director, United Nations University Institute for Water Environment and Health (UNU- INWEH)</p> <p>Thematic Presentations</p> <ul style="list-style-type: none"> ▪ Mr Manuel Pulido-Velazquez, Professor, Water Resources Engineering, Polytechnic University of Valencia, Spain ▪ Mr Maxim Pasik, Executive Chairman, Watergen ▪ Mr Chee Meng Pang, Chief Engineering & Technology Officer, Singapore PUB ▪ Mr Ali Abshaev, ANTIGRAD: ▪ Mr Manzoor Qadir, Assistant Director, UNU-INWEH <p>Facilitated panel discussion / Questions and Answers</p> <p>Wrap-up by the Chair</p> <p>Rapporteur: Ms Dionysia Lyra, International Centre on Biosaline Agriculture (ICBA), United Arab Emirates</p>
10:30 - 11:00	NETWORKING COFFEE BREAK

Time	Title
11:00 - 12:30	<p>TECHNICAL SESSION 4 – POLICIES & REGULATIONS</p> <p>Plenary Room: Anfiteatro de Casa de América</p> <p>Title: "Creating the enabling environment"</p> <p>Chair: Ms Danielle Gaillard Picher, Vice-Chair, Global Framework on Water Scarcity in Agriculture (WASAG)</p> <p>Thematic Presentations</p> <ul style="list-style-type: none"> ▪ Ms Edeltraud Guenther, Director, United Nations University – Institute for Integrated Management of Material Fluxes and of Resources (UNU-Flores), Germany ▪ Mr Eric Stevens, International Policy Analyst, Food and Drug Administration (USFDA), United States of America ▪ Mr Miquel Salgot, Department of Natural Products, Plant Biology and Soil Science, University of Barcelona (UB), Spain ▪ Ms Concepción Marcuello Olona, Technical Coordinator, General Water Directorate, Ministry for the Ecological Transition (MITECO), Spain ▪ Mr Tom Soo, Executive Director, International Association for Hydro-Environment/ Member, Water Policy Group (WPG) <p>Facilitated panel discussion / Questions and Answers</p> <p>Wrap-up by the Chair</p> <p>Rapporteur: Mr Nicholas Sloane, Director, Resolve Marine Group, Cape Town, South Africa</p>
12:30 - 14:00	LUNCH BREAK
14:00 - 15:00	<p>MARKETPLACE</p> <p>Meeting Room: Sala Borges</p> <p>Facilitator: Ms Patricia Mejías Moreno, Land and Water Officer, FAO</p> <p>Marketplace sessions are designed to give presenters a five-minute lightning talk to showcase their innovative methodology, solutions or technology. A stimulating discussion with participants follows.</p> <ul style="list-style-type: none"> ▪ Mr Roy Tin, Chief Investment Officer, Stannum Capital Investments ▪ Mr Tomás Bujeda Rami, Commercial, Area Manager, ARPA, Spain ▪ Mr Mbaruku Vyakweli, Head of Corporate Affairs, Nairobi City Water and Sewerage Company, Kenya ▪ Mr Mohamed Diatta, World Water Forum (WWF) ▪ Mr Miguel Martínez Pérez, Operations Manager Mettech, Chile ▪ Mr Manuel Flores, The Global Framework on Water Scarcity in Agriculture (WASAG) <p>Facilitator Wrap-Up</p> <p>MARKETPLACE</p> <p>Plenary Room: Anfiteatro de Casa de América</p> <p>Facilitator: Mr Yo Nishimura, Associate Land and Water Officer, FAO</p> <p>Marketplace sessions are designed to give presenters a five-minute lightning talk to showcase their innovative methodology, solutions or technology. A stimulating discussion with participants follows.</p> <ul style="list-style-type: none"> ▪ Mr Ioannis Kalavrouziotis, Hellenic Open University, Greece ▪ Ms Yuhong Jiang, CEO, BRISEA Group, Inc. ▪ Mr Kevin Oduor Lunzalu, Young Professional Agricultural Development (YPARD) ▪ Mr Sandy Rodger, Chief Operations Officer, Toilet Board Coalition ▪ Mr Osama Hasan Abdulla Almasawi, Technical Services, Abu Dhabi Agriculture and Food Safety Authority ▪ Mr Marlos De Souza, Senior Officer, Land and Water Division, FAO <p>Facilitator Wrap-Up</p>

Time	Title
15:00 - 15:30	NETWORKING COFFEE BREAK
15:30 - 17:00	<p>TECHNICAL SESSION 5 – FINANCING</p> <p>Plenary Room: Anfiteatro de Casa de América (EN-SPA-FR interpretation available)</p> <p>Title: "Investments and financial instruments in a circular economy"</p> <p>Chair: Mr Guillaume Gruère, Agriculture and Water Leader, Organisation for Economic Co-operation and Development (OECD)</p> <p>Thematic Presentations</p> <ul style="list-style-type: none"> ▪ Mr Francesc Hernández, Professor in Water Economics, University of Valencia ▪ Mr Octavi Quintana Trias, Director, Partnership for Research and Innovation in the Mediterranean Area (PRIMA) ▪ Ms Valeria Silvestri, Senior Water Management and Rural Infrastructure Expert, International Fund For Agriculture Development (IFAD) ▪ Ms Heba Ahmed, Water Resources and Irrigation Specialist, World Bank ▪ Mr Carlos Cosín, President, International Desalination Association (IDA)/ CEO, Almar Water Solutions <p>Facilitated panel discussion / Questions and Answers</p> <p>Wrap-up by the Chair</p> <p>Rapporteur: Mr Ali Abshaev, ANTIGRAD</p>
17:00 - 17:30	<p>CLOSING CEREMONY</p> <p>Plenary Room: Anfiteatro de Casa de América (EN-SPA-FR interpretation available)</p> <p>Facilitator: Ms Sasha Koo-Oshima, Deputy-Director, Land & Water Division, FAO</p> <p>Announcement of the International Observatory on Unconventional Water and Energy Resources (Ms Danielle Gaillard Picher, Director of Policy and Programs (WWC)</p> <p>Remarks by the United Nations Major Group for Children and Youth (UNMGCY): Mr Vincent Lawson Body</p> <p>Key Messages from the Symposium</p> <ul style="list-style-type: none"> ▪ Day 1 – Mr Marlos de Souza, Land and Water Senior Officer, FAO ▪ Day 2 – Ms Patricia Mejías, Land and Water Officer, FAO <p>Closing remarks: Ms Isabel Bombal Díaz, Director General, Rural Development, Innovation and Forestry Directorate, Ministry of Agriculture, Fisheries and Food (MAPA), Spain</p>

SYMPOSIUM AND THE SUSTAINABLE DEVELOPMENT GOALS - SDGs

The Symposium supports the global water community's efforts to help water scarce countries find nonconventional water supply opportunities. More specifically, the Symposium aims to contribute to SDG1, SDG2, SDG3, SDG6, SDG7, SDG9, SDG13 and SDG14, calling respectively, for achieving zero hunger and for achieving clean water and sanitation for individuals by the year 2030.



INTERNATIONAL SYMPOSIUM ON THE USE OF



TO ACHIEVE FOOD SECURITY

PROGRAMME OVERVIEW

14-15 NOVEMBER 2019 | MADRID, SPAIN

THURSDAY, 14 NOVEMBER 2019		FRIDAY, 15 NOVEMBER 2019	
9:00 - 9:30	REGISTRATION Anfiteatro de Casa de América	8:30 - 9:00	REGISTRATION Anfiteatro de Casa de América
9:30 - 10:30	OPENING CEREMONY Plenary Room, Anfiteatro de Casa de América	9:00 - 10:30	TECHNICAL SESSION 3 – TECHNOLOGY & INNOVATION Plenary Room, Anfiteatro de Casa de América
10:40 - 11:00	NETWORKING COFFEE BREAK	10:30 - 11:00	NETWORKING COFFEE BREAK
11.00–12.30	TECHNICAL SESSION 1 – ACHIEVING THE SDGs Plenary Room, Anfiteatro de Casa de América	11.00–12.30	TECHNICAL SESSION 4 – POLICIES & REGULATIONS Plenary Room, Anfiteatro de Casa de América
12:30 - 14:00	LUNCH BREAK	12:30 - 14:00	LUNCH BREAK
14:00 - 15:30	TECHNICAL SESSION 2 – NONCONVENTIONAL WATER & FOOD SECURITY Plenary Room, Anfiteatro de Casa de América	14:00 - 15:00	MARKETPLACE Meeting Room: Sala Borges
15:30 - 16:00	NETWORKING COFFEE BREAK	15:00 - 15:30	NETWORKING COFFEE BREAK
16:00 - 17:30	PARALLEL SESSION 1.1 Room: Sala Simón Bolívar	15:30 - 17:00	TECHNICAL SESSION 5 – FINANCING Plenary Room: Anfiteatro de Casa de América
	PARALLEL SESSION 1.2 FIT FOR PURPOSE WATER REUSE Plenary Room: Anfiteatro de Casa de América	17:00 - 17:30	CLOSING CEREMONY Plenary Room: Anfiteatro de Casa de América
17:30 - 19:30	CULTURAL EVENT – Bus Madrid City Tour (2h aprox.)		

For more information on the symposium, visit the website: www.fao.org/land-water/events/ncwsymposium19



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