

WEFE Nexus Science Advances CONFERENCE

Online from Nicosia, Cyprus
27–29 September 2021



Home - WEFE Conference (wefe-nexus-medconf-2021.eu)



Final programme

A bird's eye view

Monday, 27 September 2021

First day

10:30 – 11:30 Opening - High Level Political Session

Setting the scene

Launch of the Gateway to the Future of the Mediterranean: Water, Energy, Food and Ecosystems

11:45 – 13:00 High Level Session - Science, Society and Policy: From monologues to dialogue

Keynote speech: What perspectives for the Mediterranean and how can policy-making lead to effective and sustainable management of the region's natural resources?

Panel Discussion

14:15 – 15:30 Session 1

Nexus Talk 1: The energy transition in the Mediterranean: challenges, opportunities, and implications for the Nexus.

Panel Discussion "Renewables-based energy-water approaches as enablers for development"

15:45 – 16:45 Poster Session 1

Tuesday, 28 September 2021

Second day

9:45 – 10:45 Poster Session 2

11:00 – 12:15 Session 2

Nexus Talk 2: How to promote evidence-based best practices for an effective food-water system transformation?

Panel Discussion “Exploring the resilience of the Mediterranean food and water systems”

14:15 – 15:30 Session 3

Nexus Talk 3: Which science for the identification of Nexus targets and their translation to inputs for policy making?

Panel Discussion “A step change in science to enable Nexus policy decisions under consensus”

15:45 – 16:45 Poster Session 3

Wednesday, 29 September 2021

Third day

9:15 – 10:15 Poster Session 4

10:30 – 11:45 Breakout Groups

Designing practical Nexus pilots to show economic and socio-ecological benefits

11:45 – 12:30 Sum-up of the Breakout Groups

14:00 – 15:15 High Level Panel - Creating opportunities

Panel Discussion “Recasting and implementing a new science-to-practice Nexus programme”

Award of the PRIMA WEF Nexus prizes

15:15 – 16:00 Closing High Level Political Session

The way forward

End of the Conference

Conference objectives

There are no purely sectoral solutions to the sustainable management of Water, Energy, Food and Ecosystem resources in the Mediterranean region. Moreover, as the COVID 19 pandemic and the migration flows in some parts of the region are dramatically showing, a transformation of our current thinking and approaches is no longer an option, but a necessity. The key concept of the 2021 WEF Nexus Science Advances Conference is “**addressing interdependencies**”. The Conference will analyse the role of science as driver of innovation and its interfacing with the policy and decision-making processes. It will recommend workable measures on how to integrate novel paths in the research and planning of WEF supply chains through a collaborative response across the Mediterranean region. Participants in the Conference will be scientists and practitioners, as well as social actors and decision makers from diverse WEF sectors from the entire Mediterranean area, all brought together with the following common objectives:

- **Survey new approaches and modes of practice that can be applied to inform decisions, choose priorities and incentivize the cross-sectoral management of water, energy, food and ecosystem resources.**
- **Promote the collection and documentation of WEF Nexus best practices in the Mediterranean region and incorporate lessons learned in hands-on guidance for the development of sustainable operational targets, in line with the SDGs.**
- **Elaborate on the role of a WEF Nexus Community of Practice to stimulate cross-organisation collaboration and knowledge-sharing around demonstration projects in the Mediterranean region.**

The Conference focuses on the Mediterranean dimension, but it is of broad interest to participants from outside the region sharing the same interests and wishing to learn from the Mediterranean experience.

Format

The Conference will be held entirely online with successive high-level panel sessions and group work smoothly spread over three days. It will be highly interactive with discussions at the science-to-policy interface triggered by keynote speakers tasked to review the state-of-the-art in specific areas of the Nexus (Nexus Talks). Participants and panellists will be asked to provide inspiring evidence of mutually beneficial solutions based on the co-production of practical and scientific knowledge. Breakout Groups and poster sessions will offer opportunities for networking. Please note that all times are in Central European Summer Time (CEST).

How to join the session of your choice

In order to join the Plenary Sessions on the different days of the Conference, you simply need to click on the links below (if you scroll through the programme, you will see that each day's header is hyperlinked for your convenience):

27th September:

<https://attendee.gotowebinar.com/register/1966171299448886800>

28th September:

<https://attendee.gotowebinar.com/register/6086786837609204752>

29th September:

<https://attendee.gotowebinar.com/register/5874931837657704208>

If this fails, you can still follow the Conference on **YouTube**, at the following links:

27th September: <https://youtu.be/WAVvugHXtfM>

28th September: <https://youtu.be/Alty2PR8waY>

29th September: <https://youtu.be/YOKuPcAr4YI>

Poster Sessions: You will also notice the Poster Sessions. Each poster is allocated to one of the four poster sessions, and you can find the link to the poster of your choice at the end of this document, or on our website (<https://wefe-nexus-medconf-2021.eu/poster-sessions>), where you will also be able to download posters.

Breakout Groups: On the third day, Wednesday 29 September 2021, we will start with Breakout Groups. For this, our audience will be split into small groups. Please find below the links for the Breakout Groups:

- Energy - Water: <https://global.gotomeeting.com/join/612277965>
- Food - Water: <https://global.gotomeeting.com/join/286167101>
- Nexus: <https://global.gotomeeting.com/join/226547429>
- Pilots: <https://global.gotomeeting.com/join/715637789>

Final Conference Programme

ALL TIMES ARE IN CENTRAL EUROPEAN SUMMER TIME (CEST)

Monday, 27 September 2021

[First day: High level opening and Session 1](#)

10:30 – 11:30 Opening - High Level Political Session

Chaired by Stephen Quest, Director General, Joint Research Centre, European Commission

Setting the scene

- Costas Kadis, Minister of Agriculture, Rural Development and Environment of Cyprus ([introductory video statement](#))
- Yasmine Fouad, Minister of Environment of the Arab Republic of Egypt
- Nasser Kamel, Ambassador, Secretary General of the Union for the Mediterranean
- Jean-Eric Paquet, Director General, DG Research and Innovation, European Commission
- Klelia Vasiliou, Commissioner for the Environment of the Republic of Cyprus

Launch of the Gateway to the Future of the Mediterranean

The “Gateway to the Future of the Mediterranean: Water, Energy, Food and Ecosystems” is dedicated to examining the WEF E Nexus in the Mediterranean. It is a collaborative effort of the EC Joint Research Centre and the Union for the Mediterranean, together with the Global Water Partnership - Mediterranean and other institutions from all shores of the Mediterranean region.

- Giovanni De Santi, Director, Sustainable Resources Directorate, Joint Research Centre, European Commission

11:45 – 13:00 High Level Session - Science, Society and Policy: From monologues to dialogue

Science and practice are both rooted in the society, but they often follow different pathways. Experience gained from practice and traditional knowledge need to be fused with the findings of modern science and open up new opportunities in the management of natural resources. The panel will reflect on how to make the boundary between science and practice more fluid, thus facilitating the implementation of the UfM water agenda, the European Green Deal and the UN SDGs agenda.

Keynote speaker

- Janez Potočnik, UNEP International Resource Panel/SYSTEMIQ

Panelists

- Angelo Riccaboni, Chair of PRIMA Foundation
- Isidro González Afonso, Deputy Secretary General, Union for the Mediterranean
- Pavel Misiga, Head of Unit, DG Research and Innovation, European Commission
- Stefano Dotto, DG Neighbourhood and Enlargement Negotiations, European Commission

Moderator

- Chris Burns, Burnstorm Communications

Break

14:15 – 15:30 Session 1: Renewables-based energy-water approaches as enablers for development

The projected increase of the Mediterranean demand for energy is intimately related to water availability, only made more complex by the expected impacts of climate change. The session focuses on prospects for science- and technology-based solutions to this WEF Nexus issue. Discussions will address how science can support cross-sectoral negotiations and propose solutions to ensure Mediterranean energy and water security while considering the decarbonisation of the energy sector and a reduction of impacts on the already limited water resources.

Keynote speaker

- Pedro Linares Llamas, Universidad Pontificia de Comillas, Madrid, Spain

Panelists

- Rabi H. Mohtar, Dean of the Faculty of Agricultural and Food Sciences, American University of Beirut, Lebanon
- Theodoros Zachariadis, Energy, Environment and Water Research Centre of the Cyprus Institute
- Divyam Nagpal, International Renewable Energy Agency (IRENA), Abu Dhabi based
- Jauad El Kharraz, Water-Energy-Climate Experts Network (WECEN), France

Moderator

- Rene Wyndham, Moderators Europe

15:45 – 16:45 Poster Session 1

Tuesday, 28 September 2021

Second day: Session 2 and Session 3

9:45 – 10:45 Poster Session 2

11:00 – 12:15 Session 2: *Exploring the resilience of the Mediterranean food and water systems*

Food systems in the Mediterranean region cross over political boundaries and connect consumer choices with land and water use. Mapping these connections and the journey of food from farm-to-fork will bring to light hidden impacts of food supply chains on ecosystems and threats to nutritional security of vulnerable social groups. The panel will address how to bridge science and practice to optimize material and energy flows in the Mediterranean food-water nexus and ensure resilience and/or adaptability in the face of disruptions.

Keynote speaker

- Ismahane Elouafi, Chief Scientist, Food and Agriculture Organization, United Nations

Panelists

- Semia Cherif, University of Tunis El Manar, Higher Institute of Applied Biological Sciences of Tunis (ISSBAT), Tunisia
- Iddo Kan, Department of Environmental Economics and Management, The Robert H. Smith Faculty of Agriculture, Food and Environment, The Hebrew University of Jerusalem, Rehovot, Israel
- Arianna Giuliadori, Secretary General of the World Farmers' Organisation
- Gianluca Brunori, University of Pisa, Italy

Moderator

- Claire Doole, Claire Doole's Communications

Break

14:15 – 15:30 Session 3: *A step change in science to enable Nexus policy decisions under consensus*

Governing the complexity of the Nexus and the resulting social and economic consequences goes beyond the capacity of a single sector. This is even more true with an expanding understanding of the Nexus concept to include climate resilience and human health, which are also locked in a spiral of decline with diverse manifestations at the local level. Evidence-based trade-off analyses can support the development of such a multilevel governance. The session will highlight scientific findings and analyse the array of options available to design natural resource allocation regimes and promote policy decisions under consensus. It will also address how to integrate a balanced perspective on the social, economic and human health role of ecosystems.

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Keynote speaker

- Wolfgang Cramer, CNRS Research Director, Mediterranean Institute for Biodiversity and Ecology (IMBE), Aix-en-Provence, France

Panelists

- Gidon Bromberg, EcoPeace Middle East
- Irene Sander, Global Nexus Secretariat, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
- Carlo Giupponi, Department of Economics at Ca' Foscari University of Venice, Italy
- Hani Sewilam, RWTH Aachen University, Germany and the American University in Cairo, Egypt

Moderator

- Karen Coleman, SkyeByte Productions

15:45 – 16:45 Poster Session 3

Wednesday, 29 September 2021

Third day: Breakout Groups and Closing Session

9:15 – 10:15 Poster Session 4

10:30 – 11:45 Breakout Groups: Designing practical Nexus pilots to show economic and socio-ecological benefits

Although various technical solutions exist, what is lacking is their wide acceptance and on-the-ground application. We need to translate the WEF E Nexus concept and their applied practices into social and economic terms and explain the tangible return to stakeholders. We need to show how the Nexus can offer entrepreneurial and employment opportunities helping people avoid facing desperate dilemmas, such as migration vs. insecurity, or how the Nexus approach can be a tool for local or transboundary conflict resolution, a game changer for addressing inequalities and peace building in the region. Process design is then crucial to support intersectoral dialogues. The task for the Breakout Groups will be to offer demonstration cases likely to show the economic and socio-ecological benefits of the WEF E Nexus approach¹. Participants will split in small chat rooms to discuss this from different angles, namely

- **Energy – Water:** Moderator: Fadi Comair, Cyprus Institute; Rapporteur: Ad de Roo, Joint Research Centre, European Commission

¹ See guidelines in the separate document titled “Translating the Water, Energy, Food and Ecosystem (WEFE) NEXUS approach into practice: Towards a Mediterranean WEF E Nexus Community of Practice”.

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- **Food – Water:** Moderator: Michael Scoullos, Global Water Partnership-Mediterranean; Rapporteur: Antonio Skarmeta Gómez, University of Murcia, Spain
- **Nexus:** Moderator: Maria Vrachioli, Department of Agricultural Production and Resource Economics, TUM, Germany; Rapporteur: Fernando Nardi, University for Foreigners of Perugia, Italy
- **Pilots:** Moderator: Adriana Bruggeman, Cyprus Institute; Rapporteur: Andrea Castelletti, Polytechnic University of Milan, Italy.

11:45 – 12:30 Sum-up of the Breakout Groups

Each group will present key lessons and suggestions for action based on practical case studies elaborated during the breakout session. On this basis, discussions will focus on the possible formation of a Community of Practice designed to engage partners in experience sharing from hands-on WEFE Nexus actions in the Mediterranean region, based on voluntary contributions made by competent partners.

Moderator

- Vangelis Constantianos, Global Water Partnership-Mediterranean

Break

14:00 – 15:15 High Level Panel: Creating opportunities

Recasting and implementing a new science-to-practice Nexus programme: enabling partnerships among practitioners, scientists and Mediterranean policy and decision makers to make Nexus progress happen at operational level. Discussions will explore how to engage partners in experience sharing from hands-on WEFE Nexus related actions and a network of demonstration cases in the Mediterranean region.

Panelists

- Mohamed El Shinawi, Co-chair of PRIMA Foundation
- Almotaz Abadi, Managing Director Water, Union for the Mediterranean
- Elisabetta Balzi, Head of Unit, DG Research and Innovation, European Commission
- Ayman Ayad, Water and Utilities Sector Manager, Delegation of the European Union to Egypt, Cairo
- Ad de Roo, Joint Research Centre, European Commission

Award of the PRIMA WEFE Nexus prizes

PRIMA will award two recognition Prizes "The PRIMA WEFE Nexus Awards" to those research teams and practitioners having devised and demonstrated the successful implementation of combined management practices of water, energy, food and ecosystem resources at the local or regional scale in the Mediterranean ([Prizes - PRIMA \(prima-med.org\)](https://prima-med.org)).

- John Bell, Director, DG Research and Innovation, European Commission

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Moderator

- Anya Sitaram, Rockhopper Media

15:15 Closing High Level Political Session

The way forward

Chaired by John Bell - Director Research and Innovation, and Giovanni De Santi - Director Sustainable Resources Directorate, Joint Research Centre, European Commission

- Cristina Messa, Minister of University and Research of Italy
- Samia Moualfi, Minister for Environment of Algeria
- Jihad Al Mahami, Secretary General of Ministry of Water and Irrigation of Jordan

Farewell by Costas N. Papanicolas, advisor to the President of the Republic of Cyprus on Climate Change and Presidential Special Envoy for Climate Change

Poster Sessions

Poster Session 1 (Water/Energy) 27th September 2021, 15:45-16:45 (CEST)

- Anna Sperotto, Ferdinando Villa, Stefano Balbi. **Unravelling the Knot of the Water-Energy-Food Nexus using Ecosystems Services.** Room 1 <https://global.gotomeeting.com/join/374476765>
- Manfred A. Lange, Salvatore Carlucci, Georgios Artopoulos. **Urban Environmental Quality in the Eastern Mediterranean and the Middle East.** Room 2 <https://global.gotomeeting.com/join/403084085>
- Ghadeer A. Arafah. **Towards Effective Policies to Develop Investment in Renewable Energy in Palestine.** Room 3 <https://global.gotomeeting.com/join/407430157>

Poster Session 2 (Water/Food) 28th September 2021, 09:45-10:45 (CEST)

- Declan Conway. **Progress in the Water-Energy-Food Nexus.** Room 1 <https://global.gotomeeting.com/join/388386469>
- Fernando Nardi, Enrica Caporali, Maria Cristina Rullii, Rudy Rossetto, Marco Bonamente, Filippo Tessari, Leonor Rodriguez Sinobas, Xenia Schneider, Sebastian D., Marcu, Christophe Cudennec, Mohamed Bahnassy, Mohamed Ouessar, Salah M'hemdi. **NEXUS Nature Ecosystem Society Solution: Fair and Sustainable Resource Allocation Demonstrator of the Multiple WEF E Nexus Economic, Social and Environmental Benefits for Mediterranean Regions.** Room 2 <https://global.gotomeeting.com/join/133741581>
- Mostefaoui Leila. **Water, Energy and Food Nexus in Algeria.** Room 3 <https://global.gotomeeting.com/join/131600597>

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- Antonio Skarmeta, Jesus Argente, Noelia Perez, Burcu Yacizi, Hatice Taner. **WATERMED 4.0: Efficient Use and Management of Conventional and non-Conventional Water Resources through Smart Technologies Applied to Improve the Quality and Safety of Mediterranean Agriculture in Semi-Arid Areas.** Room 4 <https://global.gotomeeting.com/join/561974077>

Poster Session 3 (Nexus) 28th September 2021, 15:45-16:45 (CEST)

- Konstantinos Pappas, Silva C. Hamie, Bassel Daher, Elizabeth Bodenman. **Migration and WEF Nexus interconnections in Insular Regions: Insights from Greece.** Room 1 <https://global.gotomeeting.com/join/901045533>
- Salam Al Rabadi. **Non-Classical Security and the Problematic of Climate Migration.** Room 2 <https://global.gotomeeting.com/join/547881941>
- Ali Karnib. **Modeling the Water-Energy-Food Nexus: The Q-Nexus Model Web Tool for Bridging Science and Policy Making.** Room 3 <https://global.gotomeeting.com/join/901267373>
- Luís P. Dias, Júlia Seixas, Monica Truninger, Luísa Schmidt, Rosário Oliveira, João Graça. **Modelling Local Water-Energy-Food Nexus for Self-Sufficiency Assessment.** Room 4 <https://global.gotomeeting.com/join/153904813>
- José González-Piqueras, Anna Osann, Leon Kapetas. **Managing Resilient Nexus Systems through Participatory Systems Dynamics Modelling (REXUS).** Room 5 <https://global.gotomeeting.com/join/522698605>

Poster Session 4 (Nexus Pilots) 29th September 2021, 09:15 to 10:15 (CEST)

- Domínguez; J.M. Tarjuelo; A. Martínez-Romero; J.J. Pardo; J. Montero; R. López-Urrea; J.A. Martínez-López; N. Sánchez-García; A. Zidi; R.A. Ferrer; L. López; E. Mino; M. Oueslati; N.R. Dalezios; N. Dercas; I. Faraslis; D. Skepastianos; G. Orfanidis; G. Karoutsos; F. Karam; C. Hashem; H. Hawa; M.B. Nassar; H. El Amami; A. Zaïri; Z. Nasr; A. Chebil; T. Hermassi; R. Nsiri; O. Kheriji; H. Maroufi. **SUPROMED project: A Way to Improve the Environmental and Economic Sustainability of the Mediterranean Agro-Ecosystems.** Room 1 <https://global.gotomeeting.com/join/915694869>
- Gidon Bromberg. **A Water Energy Nexus for the Middle East.** Room 2 <https://global.gotomeeting.com/join/322531573>
- Nikolaos P. Nikolaidis, Dionissis Efstathiou, Maria Lilli, Ioulia Koroptsenko. **Optimizing the Water-Energy-Food-Ecosystem Nexus for an Avocado plantation in Crete, Greece.** Room 3 <https://global.gotomeeting.com/join/692990837>
- Daniel A. Segovia-Cardozo, Leonor Rodríguez-Sinobas, Sergio Zubelzu. **Optimization of Irrigation Water in the Duero River Basin.** Room 4 <https://global.gotomeeting.com/join/369847565>

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- Tiziana della Ragione. **A Water-Renewable Nexus between Israel, Gaza and Egypt: Interdependency for regional stability and sustainable green transition** . Room 5 <https://global.gotomeeting.com/join/286441261>