



EMVIS S.A.



National Research
Council of Italy



Swedish
Meteorological and
Hydrological
Institute



EOMAP GmbH &
Co.KG



International
Water Association



Burgundy School
of Business



Ente Acque della
Sardegna



US Environmental
Protection Agency



Commonwealth
Scientific and
Industrial Research
Organization



Melbourne Water



SatDek

Day 2 - 16 November '21

DISASTER RISKS MANAGEMENT

PrimeWater Multi-User Panel Stakeholders week (15-19 Nov)

How to repurpose satellite-derived water quality data and forecasts into water industry intelligent services.

ABOUT THE MULTI-USER PANEL

The purpose of the MUP is to serve as an international panel of users providing expert feedback on Earth Observation (EO)-enabled services developed or extended in the context of PrimeWater and participate in the co-generation process itself through dialogue.

THE OBJECTIVES OF THE MUP STAKEHOLDERS WEEK

The main objectives of this workshop will be: (a) to provide an overview and update on the services that PrimeWater can offer to participants; (b) to understand how different sectors are using EO service to address issues such as Extreme hydrological events (EHEs) and harmful algal bloom (HAB) events and (c) to discuss the added value of PrimeWater products when addressing these issues.

Useful links for Day 2

- GroupMap activity – access the workspace [here](#)
- User preferences for Earth Observation services – access the survey [here](#)

AGENDA

SESSION 1

16 November, 13:00 – 13:45 GMT

- Welcome and introduction - *Dr Samuela Guida, IWA*
- Setting the scene - *Apostolos Tzimas, EMVIS*
- Short to medium term forecasting of water quality for operational applications: opportunities and limitations - *Evangelos Romas, EMVIS*
- Q&A with audience – *all*

Mini-break

SESSION 2

16 November, 13:45 – 14:30 GMT

Moderator: **Cindy Lebrasse**, US EPA

Presentations (10 minutes each):

- *The Disaster Risk Reduction Landscape in the Americas and the Caribbean*,
Carlos Uribe, UNDRR ROAMC Panama US Disaster risk management
- *Satellite-based assessment and forecasting*,
Dr RP Singh, ISRO
- *Applications of SAR Satellites on Oceans and Rivers for Disaster Detection and Preparation*
Drs. Chris Jackson and Sean Helfrich, NOAA

Q&A with audience (10 minutes)

Mini-break

SESSION 3

16 November, 14:30 – 15:15 GMT

14:30-14:55 GMT: Key components for a forecasting-based disaster risk management service (i.e. early-warning) for HAB outbreaks (Groupmap: <https://join.groupmap.com/545-BA9-BD4>), *Katharine Cross, IWA*

14:55-15:15 GMT: Moderated discussion

15:15-15:20 GMT: Closing Remarks

SPEAKERS BIO



Carlos Uribe, UNDRR ROAMC Panama US Disaster risk management

Mr. Carlos Uribe is the Risk Knowledge Officer of UNDRR Regional Office for the Americas and the Caribbean. Carlos is a Colombian / French national and his academic background includes a degree in Environmental Engineering and a Master of Science in the field of Master in Geosciences, Environment and Risks. Carlos has over fourteen years of international experience in the field of Disaster Risk Reduction and crisis management - in the Caribbean, Asia, Africa, and Europe. He has been actively involved in initiatives in development contexts; including management positions in the area of disaster risk reduction, climate change and environment in the past years, including four years as technical specialist in Disaster Risk Reduction within UNDP in Haiti and in other crisis context as part of the UNDAC team. He has an important experience in the production and application of risk knowledge tools such as the mapping of vulnerabilities, exposure and disaster impacts that he developed as part of initiatives like the International Charter Space and Major Disasters and the EU Copernicus Programme. Carlos has a strong background in natural hazards description, interpretation and analysis, disaster risk reduction strategies and disaster response.



Dr Raghavendra P Singh ISRO

Dr. R. P. Singh received the M.Sc. degree in Physics from IIT, New Delhi, India and the Ph.D. degree from Banaras Hindu University, Varanasi, India. He is currently working as Scientist-G and Group Director in Space Applications Centre (ISRO), Ahmedabad and leading team of scientists for hydrological applications. He is Principal Investigator of Thermal Infrared Imaging Spectrometer instrument onboard India's Mars Orbiter Mission. His current research interest includes Space based Hydrological Modeling and Thermal Infrared Sensing of Martian surface and atmosphere. Dr. Singh is Chief Editor, Journal of Geomatics and recipient of Indian Society of Remote Sensing Prof. P. R. Pisharoty Memorial Award.



Cindy Lebrasse, US EPA

Cindy Lebrasse is a PhD candidate in the Marine, Earth and Atmospheric Sciences department at North Carolina State University, and an ORISE fellow with the U.S. Environmental Protection Agency in North Carolina. Her research focuses on two blue carbon habitats: seagrass meadows and salt marshes, where she is applying combination of satellite remote sensing with bio-optical and hydrodynamic modeling to fill the current knowledge gaps in the areal extent and carbon storage capacity of these important blue carbon sinks for better monitoring and management of such ecosystems in the face of climate and anthropogenic pressures.

Dr Chris Jackson and Dr Sean Helfrich, NOAA

Bio to be shared after the meeting

Presenters from PrimeWater Consortium



Samuela Guida, IWA

Dr Samuela Guida is the IWA Strategic Programmes and Engagement Manager. She is responsible for coordinating IWA Strategic Programmes as well as projects, initiatives, and Communities of Practice related to the programmes. She is also responsible for the identification of and engagement with key global and regional partners who are aligned with IWA's strategic goals and for coordinating and supporting the functioning of IWA members' groups – working closely with member engagement team, regional offices, communications team, and other key staff at IWA. She has an academic background in Industrial Biotechnology and a Master's Degree from the University of Padova in Italy. In 2020, she obtained her PhD from Cranfield University (Water Science Institute, UK) with a Thesis on the removal and recovery of nutrients (ammonium and phosphorus) from wastewater through the ion exchange (IEX) process at demonstration scale.



Katharine Cross, IWA

Katharine has extensive experience in the water sector from global to local scale with a focus on climate resilience and adaptation, nature-based solutions, water-energy-food nexus, water governance and the digitalisation of the water sector. She has worked in Asia, Africa, Europe, North America, and South America with NGOs, government, and the private sector. She previously worked for the International Water Association developing and managing strategic programmes. Katharine is currently working for a number of organisations including IWA on climate-smart utilities, water wise cities and digital water, as a senior advisor for Water-Cities supporting the transition of cities towards sustainable water management, and as the Mekong Coordinator for the Australian Water Partnership.



Apostolos Tzimas, EMVIS

Apostolos Tzimas is the Managing Director of EMVIS SA (<http://emvis.gr/>). He has a deep knowledge of the water sector with particular focus on water infrastructure planning, development and management, working closely with public and private sector water bodies. In the field of water resources management, he provides specialized consultancy services and advisory work to competent central and regional authorities for issues related to the implementation of EU water related legislation. He is acting as technology purveyor in digital transformation projects in the water sector. He has co-ordinated the EU funded Research & Innovation project SPACE-O (<http://www.space-o.eu/>). Currently he is the co-ordinator of the EU flagship project for international cooperation of EU Copernicus Program PRIMEWATER (<https://www.primewater.eu/>) and IFOS Project (<http://emvis.gr/index.php/ifos>) funded by Innovation Norway. He is active member of authoritative professional associations (IWA, CIWEM, ISWA, IEMSS) and Technology Platforms (Water Europe).



Evangelos Romas, EMVIS

Evangelos Romas is a researcher in the field of hydraulic and hydroecological modelling. He is Head of the Research and Development unit of EMVIS SA with significant experience in 3D hydrodynamic and water quality models for surface water bodies, process simulation, automated calibration and data assimilation techniques, using satellite imagery and in-situ monitoring datasets. He has deep knowledge of major programming stacks and database systems, and professional experience in developing and applying customized ICT solutions in the field of water resources for the implementation of Environmental and Water related Directives. In recent EU-funded collaborative projects (SPACE-O, PrimeWater, IFOS), he has coordinated the architectural design and development of an operational platform for real-time forecasting of water quality characteristics in inland and coastal water bodies.