

## Workshop Speakers:

**Abou Rayan Magdy** Mansoura University, Egypt  
**Ali Wasim M.** Karlsruhe Institute of Technology, Jordan  
**Aly Ahmed Anwar** Alexandria University, Alexandria, Egypt  
**Alouini Aws** INAT, Tunisia  
**Ammerl Thomas** Bavarian Research Alliance, Germany  
**Azzam Rafiq** University of Aachen, Germany  
**Azaroual Mohamed** BRGM, France  
**Bachev Hrabrin** Agricultural Academy, Bulgaria  
**Benveniste Jerome** European Space Agency  
**Bortnikova Svetlana** IPGG SB-RAS, Russia  
**Bzioui Mokhtar** Ministry of Water, Energy and Environment, Morocco  
**Casanova José-Luis** University of Valladolid, Spain  
**Cidu Rosa** University of Cagliari, Italy  
**Dannenmaier Eric** Indiana University Law, USA  
**Dotsika Elissavet** NCSR "Demokritos", Greece  
**Essahlaoui Ali** University Mly Ismail, Morocco  
**Fanfani Luca** University of Cagliari, Italy  
**Glass-Royal Darci** Foundation for Environmental Security and Sustainability, USA  
**Kadri Mohamed** Boumerdes University, Algeria  
**Kharaka Yousif** USGS, USA  
**Manstein Yuri** IPGG SB-RAS, Russia  
**Manstein Alexander** IPGG SB-RAS, Russia  
**Pavesi Brunella** Telespazio (Finmeccanica), Italy  
**Pedrazzini Fausto** CNR IFC, Italy  
**Raco Brunella** CNR IGG, Italy  
**Soldovieri Francesco** CNR IREA, Italy  
**Subiela Vicente** ITC Canarias, Spain  
**Thierry Dominique** BRGM, France  
**Wang Huaqing** University of Le Havre, France



## ADVANCED RESEARCH WORKSHOP (ARW): Environmental Security: Water Security, Management and Control



In collaboration with:



**CNR Institute of Geosciences  
and Earth Resources, Italy**



**University Ibn Tofail, Faculty  
of Sciences, Lab. LGA, Water  
Resources Technologies,  
Kenitra, Morocco**



**Ministry of High Education,  
Executive Training & Scientific  
Research, Morocco.**



**Moroccan Committee of the International  
Association of Hydrogeologists**



**BRGM – Water Division,  
Orléans, France**



**المعهد الدولي للماء والصرف الصحي  
Institut International de  
l'Eau et de l'Assainissement**

## Co\_Directors :

Scozzari A., CNR Institute of Geosciences and Earth Resources, Italy  
El Mansouri B., University Ibn Tofail, Kénitra, Morocco

## Organising Committee :

Bahaj T., Ministry of High Education and Scientific Research, Morocco  
Kili M., University Ibn Tofail, Kénitra, Morocco  
Chao J. University Ibn Tofail, Kénitra, Morocco  
Echerfaoui H., University Ibn Tofail, Kénitra, Morocco  
Hanich L., University Cadi Ayad, Marrakech, Morocco  
Kacimi I., University Mohamed V, Rabat, Morocco  
Benqilou C., School of mines, Rabat, Morocco  
Benaabidate L. University Mohemd Ben Abdellah, Fes  
Gori L., CNR Institute of Geosciences and Earth Resources, Italy

## Scientific Committee:

Dannenmaier E., Indiana University Law - USA  
Fanfani L., University of Cagliari, Italy  
Azaroual M., BRGM, France  
Pedrazzini F., CNR Institute of Clinical Physiology, Italy  
Bahaj T., Ministry of High Education and Scientific Research, Morocco

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## Justification:

In recent years there has been a growing need for the development of tools for environmental security assessment and for the management of environmental security issues. In this context, emerging risks about water resources and their relationship with more general environmental security concerns are particularly relevant. The strategic assessment of critical environmental factors is a necessary step for the prevention of conflict. These factors, especially in most of the African continent, have been identified in land use practices, deforestation, water scarcity, and water quality.

Water scarcity and degradation are particular threats to human security, especially in many regions of Africa and the Middle East. South-Mediterranean countries are uniquely prone to threats to the quality of water normally exploited for human activities because of rapid industrial and urban development which can lead to uncontrolled (or poorly controlled) forms of pollution.

Focusing on the African context, various partnerships and foundations have been formed during recent years, to address the most critical aspects at a high, informative level. One of the most discussed environmental security priorities emerging from those *fora* concerned the correct management and preservation of water resources.

In such a context, and in order to enhance the analytical capability of institutions, closer and more frequent contact and collaboration among scientists/technologists and policymakers are strongly needed. This workshop represents an opportunity in this respect, within a context in which the north-African countries belonging to the “Mediterranean

Dialogue” group are ready to play a positive role, with the support of NATO countries.

## Scientific content:

Environmental security assessment is gaining importance as a tool for the decision-making process. The scientific program of this ARW is inspired by this concept, and tries to contribute to build a bridge between policy/decision makers and the scientific community.

The three-day ARW will explore different aspects of the environmental security assessment process, focusing on the assessment, monitoring and management of resources, with an overview of the related scientific knowledge.

The workshop is organised into sessions covering specific topics. Scientific sessions will begin with an outlook of the emerging risks, seen from the point of view of experts in law and environmental rights, will go through the discussion of large scale and local scale monitoring frameworks, and will include an overview of existing methods and technologies for the identification of water resources, quality assessment and treatment. A session about selected case studies completes the scientific program of the ARW.

Recent scientific literature, national and international directives, and also some national regulations have clearly highlighted the need of an effective effort to identify/develop efficient and comprehensive environmental and health indicators – and to link those indicators to security priorities. In fact, efficient strategies are generally the outcome of a harmonisation phase, which, in turn, depends on the exchange of information between relevant parties in addressing a problem or a potential threat.

The idea to split the ARW into several short and sequential scientific sessions derives from the concept

to provide an overview, which, although not exhaustive, will permit coverage of a wide range of interconnected topics which are critical to both scientists and policymakers.

This approach is aimed at promoting an active capacity-building process in a context where many actors (both scientists and decision-makers) work separately with great competence, but often with limited communication and few opportunities for collaboration. Taking this into account, a highly multidisciplinary platform which involves scientists from Law studies, Hydrogeology, Information Technology, Geophysics and Geochemistry, will converge and interact in this project.

## Main outcomes:

Capacity development comprises a wide range of issues, including the effective use, strengthening, and building up of human potential and institutional capacity, in order to undertake environmental security assessment (with an emphasis on water issues) and feed it into the decision-making process.

The final wrap-up phase of this ARW is intended to engage invited Policymakers (government officials and stakeholders) in a discussion of how to promote a better link between relevant Parties. In particular, one target of this ARW will be to set up a **R&D platform** for the management of environmental resources, focused on water, and oriented to the environmental security issues of North African countries. All of this will give particular attention to the specific framework and needs of the **Mediterranean Dialogue Countries**, where Morocco offers an ideal point of contact between NATO and its partner countries within the African continent.