International conference

Vulnerability of the Mediterranean soils to water erosion: State of knowledge and adaptation strategies in the face of global change

20 - 21
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Rabat

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The conference "Vulnerability of the Mediterranean soils to water erosion: state of knowledge and adaptation strategies in the face of global change" will be held on 20 - 21 November 2018 in Morocco, Hassan II Institute of Agronomy and Veterinary Medicine, campus of Rabat.

Objective:

The general objective of this conference is to review the present state of knowledge on the vulnerability of the Mediterranean soil in the face of water erosion, discuss the principal tracks of adaptation in the face of global change, provide active dissemination of its results and promote collaborations between North-South and South-South researchers.

Background :

Water erosion of soils is a major handicap for the development of rural areas and the conservation of the natural environment in the Mediterranean basin. It is regarded as the principal cause of soil degradation. Water erosion results from the synergistic effects of the natural conditions and the inappropriate anthropogenic activities. It degrades the ecosystem services secured by soils because of multiple negative effects like the loss of soil fertility and thus their productivity, particularly upstream of the catchment areas, the decrease of arable land potential, and the exacerbation of silting in dam reservoirs or the deterioration of water quality. Titanic efforts were and are always made by the governments of these countries to protect the land and the watersheds against this degradation.

Nevertheless, the areas affected by water erosion continue to increase and the reservoirs continue to silt up. This converging trend could develop in the future since the changes in land use and climate awaited during the 21st century are likely to speed up the process of degradation and soil erosion. Projections of the various scenarios SRES of IPCC show that the Mediterranean basin, as the rest of the world, will undergo changes in the patterns of precipitations and temperatures: alteration of the seasonality of the precipitation pattern, decrease of the annual rainfall accompanied with an increase in the frequency and intensity of extreme hydrometeorological phenomena such as the drought and the floods. These effects will have a significant impact on the degradation of soil and water resources and thus on the development of these countries and their food security.

Confronted to the extension of this phenomenon, the Mediterranean countries in general, and those of the South in particular, are in dire need to increase their research efforts and exchange of experts for a better understanding of water erosion processes and the valuation its consequences. Furthermore, they are needy for developing effective prognostic methods (modeling) and soil conservation and adaptation programs that fit the global change. In that sense, the respective governments of these countries implemented several projects. The learning from these efforts by sharing research and land development experiences would allow, on one hand, to improving the effectiveness of the public actions in the sustainable management of natural resources (soil and water) and on the other hand, to ensuring food security and sustainability of these countries and thus a more stable and secure Mediterranean region by limiting poverty.
In this vision, a group of French-Moroccan researchers initiated in 2011 a JEAI program (Jeune Équipe Associée à l'IRD) "Vecteur" working on "the vulnerability of soils to water erosion". Since, it evolved and was extended to other research teams via international projects such as the Arimnet2 project "MASCC" to encompass in 2017 a broader space of the Mediterranean region: Tunisia, Morocco, Portugal, Spain and Italy.
In this context, the JEAI Vecteur Morocco organizes its second international conference on the "Vulnerability of the Mediterranean soil to water erosion: state of knowledge and adaptation strategies in the face of global change ". The conference has twofold objectives: (i) to bring a scientific and professional light to the various questions related to soil water erosion in the face of climatic change and pinpoint the innovating sustainable strategies of adaptation and (ii) to underpin the cooperation and the exchanges on research matters between the teams of the Mediterranean basin.

The conference will bring together researchers, trainers, development agents, decision makers, funding agencies and agents of international cooperation of the southern and northern countries of the Mediterranean region. It falls under the direct contribution to the Objectives of Sustainable Development (2.Food safety; 6.Water resources and 13.Fight against the CC).

This colloquium will be structured in to the following generic axis (the list of topics by axis is not exhaustive):

1. Study of water erosion (forms, factors, processes, modeling, cartography, environmental, social and economic impacts, etc.):

   - Inventory of the case studies and the indicators of soil degradation;
   - Spatialization and cartography approach of water erosion;
   - Evaluation and analyzes of silting rate of reservoirs and its impact on the availability of water resources;
   - Remote sensing in support of the study of soil degradation and a desertification.

2. Analysis of the course dynamics of climate and society:

   - The course of land use and its impact on the hydrological functioning of watersheds;
   - Evaluation of the impact of climatic change (including extreme events) on soil degradation.

3. Innovative adaptation measures in the face of global change:

   - Soil and water conservation approaches (SWC): installations, farming practices, management of biomass and soil fertility, etc.;
   - Evaluation of the effectiveness of SWC approaches at the scale of the parcel, the installation, and the catchment area;
   - Socio-economic approaches of adaptation measures.

4. Use of ecosystem services in the definition of new alternatives intended to mitigate soil degradation:

   - Evaluation of the costs of soil degradation by water erosion;
   - Payment for ecosystem services (PES) and mechanisms of their implementation.

Organizing committee:

- Chikhaoui Mohamed, IAV Hassan II Rabat, Morocco (Chairperson),
- Aafi Abderrahman , ENFI - Salé, Morocco,
- Badraoui Mohamed, INRA, Morocco,
- Benziane Taoufiq, ENA de Meknès, Morocco,
- Bouaziz Ahmed, IAV Hassan II Rabat, Morocco,
- El Mokaddem Abdelmohssin, IAV Hassan II Rabat, Morocco,
- Hammani Ali, IAV Hassan II Rabat, Morocco,
- Moussadek Rachid, INRA, Morocco,
- Mrabet Rachid, INRA, Morocco,
- Naimi Mustapha, IAV Hassan II Rabat, Morocco,
- Raclot Damien, IRD-UMR LISAH, France,
- Sabir Mohamed, ENFI-Salé, Morocco,

Scientific committee:

- Abouabdillah Aziz, ENAM, Morocco,
- Albergel Jean, LISAH, France,
- Annabi Mohamed, INRAT, Tunisia,
- Aubert Michaud, IRDA, Canada,
- Ayan Sezgin, Kastamonu University, Turkey,
- Badaoui Bouabid, Mohamed V University, Morocco,
- Bouabid Rachid, ENAM, Morocco,
- Bouaziz Ahmed, IAV Hassan II Rabat, Morocco,
- Chikhaoui Mohamed, IAV Hassan II Rabat, Morocco,
- Chebouni Ghani, IRD, Morocco,
- Coulibaly Lacina, Moncton University, Canada,
- Crabit Armand, LISAH, France,
- Aurore Degré, University of Liège - Gembloux Agro-Bio Tech, Belgium
- Douaoui Abdelkader, Center University of Morsli Abdallah, Tipaza, Algeria,
- El Guerouani Abdelkader, FSTF, Morocco,
- El Haji kamal, ISHÉDD - Rabat (Morocco) & INRS eau - Québec, Canada,
- El Mokaddem Abdelmohssin, IAV Hassan II Rabat, Morocco,
- Follain Stéphane, LISAH, France,
- Gallart Francesc, IDAE-CSIC, Spain,
- Haithem Bahri, INRGREF, Tunisia,
- Hicham Ezzine, GIS4DS, Morocco,
- Huard Frédéric, INRA-Fr, France,
- Laaribya Said, Ibn Zohr University, Morocco,
- Laouina Abdellah, Mohamed V University, Morocco,
- Latron Jérôme, IDAE-CSIC, Spain,
- Licciardello Feliciana, University of Catania, Italy,
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- Meddi Mohamed, ENSH - Blida, Algeria,
- Mehdi Bano, University of Vienna, Austria,
- Mekki Insaf, INRGREF, Tunisia,
- Moncef Benmansour, CNESTEN, Morocco,
- Moreno-de las Heras Mariano, IDAE-CSIC, Spain,
- Morsli Boutkhil, INRF, Algeria,
- Moussadek Rachid, INRA, Morocco,
- Mrabet Rachid, INRA, Morocco,
- Mulla David, University of Minnesota, United State of America,
- Naimi Mustapha, IAV Hassan II Rabat, Morocco,
- Pedro Nunes João, CE3C-FC - University of Lisbon, Portugal,
- Planchon Olivier, IRD-UMR LISAH, France,
- Raclot Damien, IRD-UMR LISAH, France,
- René Roy, Ouranos, Canada,
- Sabir Mohamed, ENFI-Salé, Morocco,
- Verheijen Frank, CESAM - University of Aveiro, Portugal,
- Whalen Joann, McGill University, Canada,
- Yassin Mohamed, HCEFLCD, Morocco.

Important dates:

Call for participation: January 29, 2018
Abstract submission deadline: March 30, 2018
Acceptance notification to authors: May 31, 2018
Extended texts submission: September 30, 2018
Conference languages: French & English

Guidelines for writing abstract:

Persons wishing to participate to this conference are invited to submit an abstract of one page to the secretariat of the conference (**soil.vulnerability.2018@gmail.com**) taking into account the model published on the website. The abstract must conform the following layout:

- Research title,
- Names followed by the abbreviations of first names of the authors,
- Affiliations of the authors,
- Email address of the corresponding author.

A manuscript which includes a paragraph on the context, the problematic and the research objective (research question), a paragraph on the study area, a paragraph on methodology, two paragraphs on results, and lastly a paragraph on key discussion elements, conclusion and keywords.

Publishing your paper with:

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- Photo Interprétation European Journal of Applied Remote Sensing.

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