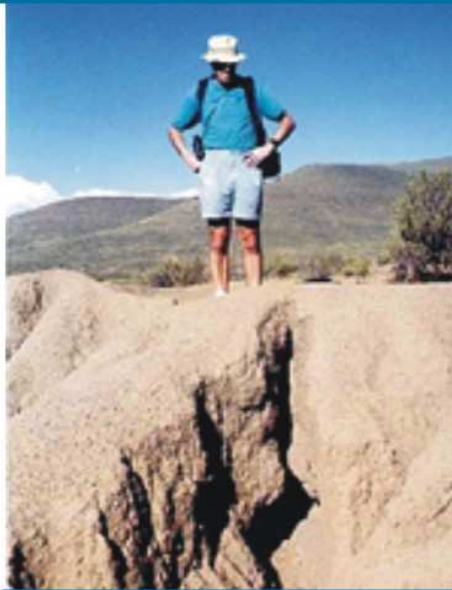


# International Workshop on Urbanisation, Land Use, Land Degradation and Environment (ULE2009)



Denizli, Turkey  
29 September - 01 October 2009



Centre for Science & Technology of the Non-Aligned  
and Other Developing Countries (NAM S&T Centre),  
New Delhi, India



Pamukkale University,  
Denizli, Turkey



The Scientific and Technological Research  
Council of Turkey (TÜBİTAK),  
Ankara, Turkey

## **Introduction**

Land degradation affects the earth's arability, thus reducing the wealth and economic development of nations. It lowers the agricultural production and cancels out gains advanced by improved crop yield. Food security is compromised and competition for dwindling resources increases as the land resource base becomes less productive. Thus a downward eco-social spiral is created when marginal lands are nutrient depleted by unsustainable land management practices resulting in loss of soil stability leading to permanent damage. The effects of land degradation often have more significant impacts on receiving water courses (rivers, wetlands and lakes). Land degradation therefore has potentially disastrous impacts on lakes and reservoirs that are designed to alleviate flooding, provide irrigation and generate hydro-power.

The causes of land degradation are mainly anthropogenic and agriculture related, which include land clearance, deforestation, depletion of soil nutrients, urban conversion, irrigation and pollution. Land degradation is affecting more than 1900 million hectares of land world-wide. The rate at which arable land is being lost is increasing and the loss of potential productivity due to soil erosion world-wide is estimated to be equivalent to some 20 million tons of grains per year.

In the developing and developed countries, the expansion of urban areas and infrastructure is encroaching on productive land and natural habitats. The environment, especially in urban areas, is so polluted that it often poses a danger to human health. Resolution of land use conflicts is essential for sustainable development. Identifying the causes of land-use change requires understanding both how people make land-use decisions (decision-making processes) and how specific environmental and social factors interact to influence these decisions (decision-making context). It is also very important to understand that land use decisions are made and influenced by social and environmental factors across a wide range of spatial scales - from household level decisions that influence local land use practices to policies and economic forces that can alter land use regionally and even globally.

Major threats to soil quality and sustainable land use / management are direct or indirect anthropogenic inputs. Consequently, soil being a resource of common interest, is under increasing environmental pressure originating from or accelerated by human activities. Land degradation / contamination in one region cannot be encountered as an isolated problem and may have adverse impacts at neighbouring regions, and also on water, nature, public health and biodiversity. Thus for a sound and feasible environmental management and sustainable development to be ensured by a consistent and efficient environmental quality protection, protection of soils, prevention of threats and mitigation of related adverse impacts as well as proper land use and management should be in coordination with such mechanisms as integrated watershed management, water resources management, water shortage and quantitative-qualitative assessment of water sources (surface, groundwater etc.), water purification and wastewater treatment practices, control of irrigation-related problems (nutrient loads, pesticides

etc.), water reclamation and reuse, desalination, solid waste management, hazardous waste management, control of landfill sites, leachate treatment, etc.

In order to acquaint the scientists, researchers, academicians and policy makers who are engaged in the work on land degradation, land use and environment, the Centre for Science & Technology of the NAM and Other Developing Countries (NAM S&T Centre) with the approval of its Governing Council announces the organisation of an International Workshop on 'Urbanisation, Land Use, Land Degradation and Environment' at Denizli, Turkey during 29<sup>th</sup> September to 1<sup>st</sup> October 2009 in association with Pamukkale University, Denizli, Turkey and the Scientific and Technological Research Council of Turkey (TÜBİTAK) and invites nominations for participation from the member countries of the NAM S&T Centre and other developing countries.

### **Objectives**

The objectives of the Workshop are to:

- Facilitate the sharing of information on various aspects of land degradation.
- Exchange the country specific information about land degradation, land use decisions and environment.
- Seek possibilities for cross country projects among NAM members.
- Promote scientist-to-scientist contact and interactions.

### **Programme of the Workshop**

The International Workshop will be held during 29<sup>th</sup> September – 1<sup>st</sup> October 2009. The event is structured into two main sections, viz. "Workshop-I: Urbanisation, Land Use, Land Degradation" and "Workshop-II: Environment" to provide an international platform for exchanging information on several aspects of the issue, that may lead to cross-country joint projects among NAM S&T Centre members and other developing countries, and promoting scientist-to-scientist interactions on various topics covered in the event.

A session wise programme would be sent to the participants in due course.

### **About NAM S&T Centre**

The Centre for Science and Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre; [www.namstct.org](http://www.namstct.org)) is an inter-governmental organization with a membership of 44 countries spread over Asia, Africa, Middle East and Latin America. The Centre was set up in 1989 in New Delhi, India in pursuance of recommendations of various NAM Summit meetings for the promotion of South-South and North-South cooperation in science and technology. The Centre undertakes a variety of programmes, including organization of workshops, symposiums, meetings and training courses and implementation of collaborative projects and offers short-term research fellowships to the scientists from the developing countries in association with various Centres of Excellence. The Centre also brings out technical books and other scientific publications in

different subjects. These activities provide opportunity for scientist-to-scientist contact and interaction; familiarizing participants on the latest developments and techniques in the subject areas; identification of the requirements of training and expert assistance; locating technologies for transfer between the members and other developing countries, dissemination of S&T information etc. The Centre also encourages academic-research-industry interaction in the developing countries through its NAM S&T-Industry Network.

**About Pamukkale University** ([www.pamukkale.edu.tr/](http://www.pamukkale.edu.tr/))

### **Faculty of Science & Arts, Biology Department**

The department's aim is to prepare students for a promising future in research, and as a result, a large percentage of graduates pursue graduate studies in the country and abroad. The goal of our department is to offer research and instructional opportunities in the emerging important areas of biology while maintaining a program rooted in the basics of disciplines. The Science of Biology, which is claimed to be the Science of 21<sup>st</sup> century, is of vital importance for Turkey too, because of the necessity to establish environmental policies, prevent the biological richness, and activate sectors that use biotechnology.

### **Faculty of Engineering, Environmental Engineering Department**

PAU Environmental Engineering Department (EED) was founded in 1994 under the Engineering Faculty of Pamukkale University and started her educational activities in 1995 by offering MSc degrees in "Environmental Engineering". With regard to the vision of the department and to meet the needs of the era, a new undergraduate program with 30% of the courses in English, has been initiated as of fall 2008. The department currently houses two divisions, being "Environmental Sciences" and "Environmental Technology". The mission of the Environmental Engineering Department is to provide a premium and contemporary education to prepare her graduates as professionals capable of identifying, evaluating, and solving complex and multi-layered problems in the field of environmental science and engineering, to conduct and encourage fundamental and applied research with a focus of designing and implementing sound, feasible, and sustainable engineering solutions to the environmental real-world issues, to build-up the proficient expertise with a global, inter-disciplinary, and innovative perspective, to be a competent actor coordinating with the public administration, the industry, and the other local, national and, international bodies for implementation of the generated sustainable solutions.

### **About TÜBİTAK**

The Scientific and Technological Research Council of Turkey (TÜBİTAK; <http://www.tubitak.gov.tr/home.do?lang=en>) is the leading agency established in 1963 for management, funding and conduct of research in Turkey. It is an autonomous institution governed by a Scientific Board whose members are selected from among prominent scholars from universities, industry and research institutions. The Council is the highest S&T policy making body in Turkey responsible for promoting, developing, organizing, conducting and coordinating

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