INFORMATION NOTE

United Nations/UNESCO/Saudi Arabia
International Conference on the Use of Space Technology for Water Management

Hosted by the Prince Sultan bin Abdulaziz International Prize for Water

Riyadh, Saudi Arabia, 15-19 March 2008

1. Introduction

The United Nations Office for Outer Space Affairs (OOSA), United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Prince Sultan bin Abdulaziz International Prize for Water (PSIPW) are co-organizing the above Conference to promote the use of space technology for benefits of the developing countries.

The Workshop will be held in Riyadh, Saudi Arabia, from 15 to 19 March 2008, and it will be hosted by PSIPW on behalf of the Government of Saudi Arabia.

2. Background and objectives

Space technologies, including satellite remote sensing technology in particular, have demonstrated proven capabilities in meeting challenges of water resource management, as rapid population growth and development pressures continue to impose additional stresses on scarce resources. Continuous Earth observations from space are crucial to manage water resources for the benefit of mankind and the environment, as well as to provide important forecasting services to prevent water-related disasters such as floods and droughts.

Remote sensing satellites provide data on several key water-related variables (for example, rainfall, precipitations, water storage, soil moisture and evaporation) using spatial and temporal scales that are appropriate for reliable assessment. A satellite-based approach to assessment and management of water resources is especially important in countries and regions of the world where adequate hydrological networks do not exist.

Earth observation from space, complimented with other applications, is a cost-effective method for effective management of resources and providing essential data to decision- makers. Once converted into practical information, these data on water resources provided by satellites could be used to formulate policy and implement programmes at the national, regional and international levels, including those of the World Bank, the United Nations Development Programme and other entities of the United Nations system.

The Conference will address these issues, and will discuss how space technology can contribute in better management of water resources, including combating desertification, ensuring access to safe drinking water and managing water-related emergencies in developing countries, with the following primary objectives:

- To increase awareness among decision makers and research and academic community of space technology applications for improving water resource management in developing countries;
- To promote educational and public awareness initiatives in the are of water resources management;
- To examine low-cost space-related and traditional technologies and information resources available for addressing water-related challenges in developing countries;
- To strengthen international and regional cooperation in the subjects.

The Conference will also feature a special session on **"Space Technology for Water Management: Linking Traditional and Ancient Methods to Modern Needs"** that will consider applications of remote sensing to detecting archaeological/ancient water systems which can be inspired for modern day use to satisfy needs for water, especially in developing countries. Those ancient water systems existed in many sites around the world, and they were designed to efficiently deliver large quantities of subterranean water to the surface and to allow long distance transportation of water in hot and dry climate conditions without considerable losses for agricultural irrigation, drinking, etc.

3. Programme

The Conference will be composed of a series of technical presentations with sufficient time set aside for discussions. Technical sessions will be followed by open discussions, which will focus on specific topics of interest and will provide additional opportunities for participants to voice their opinions.

The programme of the Conference may include, but is not limited to, the following topics:

- Applications of space technologies that provide cost-effective solutions or essential information for planning and implementation of programmes or projects to enhance management, protection and restoration of water resources.
- Use of space-related technologies in mitigating water-related emergencies, providing safe drinking water and combating desertification.
- Use of space technology for detection and exploration of ancient water systems.
- Use of ancient and traditional water management systems (e.g. rain water harvesting methods) to meet current needs for land use and agricultural activities, as well as to improve search for underground and surface water sources.
- Education and training required for various target groups on using space technologies for addressing water-related challenges, as well as public awareness initiatives in this area.
- International, regional and national initiatives.
- International cooperation.
- Case studies on successful applications of space technologies for enhancing water resources management in developing countries.

The Conference discussions will consider ways of expanding the use of space technologies and information/data for better water resources management, as well as will identify the priority areas where pilot projects could be launched and will examine possible partnerships that could be established.

Participants of the Conference are encouraged to make presentations on the topics suggested above, as well as to participate actively in all discussions.

4. Participation

The Conference is being planned for a total of 80 - 100 decision-makers, technical experts, researchers and educators drawn from the following groups: international, regional, national and local institutions, private organizations, academic institutions, multi-lateral and bi-lateral development agencies, non-governmental organizations (NGO) and also from private industry. Experts and professionals from both space-related and water management institutions will be invited, providing an opportunity to exchange experiences and strengthen networks and partnerships that will contribute to the increased use of space technology-based solutions for water resources management.

5. Participation requirements

Applicants must have a university degree and well-established professional working experience in a field related to the theme of the Conference. Applicants should be in managerial, decision-making, technical or academic positions within governmental agencies, international, regional and national institutions, universities, NGOs or private industry with responsibilities for carrying out programmes or projects in the areas related to the theme of the Conference.

Applicants who demonstrate that the Conference is central to his/her professional activities/responsibilities will be selected on a priority basis. **Equally qualified female applicants are particularly encouraged.**

The co-sponsors of the Conference will jointly select participants on a competitive basis. Selected participants will be notified by 15 February 2008.

6. Dates and location

The Conference will be held in Riyadh, Saudi Arabia, at the facilities of Prince Sultan Research Center for Environment, Water and Desert of King Saud University, from 15 to 19 March 2008**.** All selected and invited participants will receive an information package with details on board and lodging and other local arrangements.

7. Language of the Conference and presentation by participants

The working language of the Conference will be English.

Selected participants who are funded by the cosponsors of the Conference will be required to prepare a presentation of approximately 10 to 20 minutes on topics relevant to the Conference objectives and the programme. Presentations on actual on-going projects will be of particular interest to organizers of the Conference.

8. Financial support

Within the limited financial resources available, a number of selected participants will be offered financial support to attend the Conference. This financial support will defray the cost of travel (a round trip ticket – **most economic fare** – between the airport of international departure in their home country and Riyadh, Saudi Arabia) and/or room and board expenses for the duration of the Conference.

Due to limited availability of financial support, not all participants can be funded. In this respect, applicants and their nominating organizations are strongly encouraged to find additional sources of sponsorship to allow them to attend the Conference.

Funded participants will receive detailed information upon notification of their selection.

9. Deadline for submission of applications

The completed application form, properly endorsed by the applicant's government/ institution, should be submitted by mail to the United Nations Expert on Space Applications, Room E-0970, United Nations Office at Vienna, Vienna International Centre, P.O. Box 500, A-1400 Vienna, Austria, **no later than Monday, 21 January 2008**. To accelerate processing of your application, you should also e-mail an advance copy directly to the Office for Outer Space Affairs, E-mail: oosa@unvienna.org or fax it to the following number (+43 1) 26060 5830. **Only complete applications, with all the requested information and signatures, will be considered for financial support**.

10. Life and health insurance

Life/major health insurance for each of the selected participants is necessary and is the responsibility of the candidate or his/her institution or government. The co-sponsors will not assume any responsibility for life and major health insurance, nor for expenses related to medical treatment or accidental events.

11. Point of contact

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