

GRAZ VISION

“Water for all through applications of space technology”

United Nations/Austria/European Space Agency Symposium on Space Applications for Sustainable Development to Support the Plan of Implementation of the World Summit on Sustainable Development

"Water for the World: Space Solutions for Water Management"

(Graz, Austria, 13-16 September 2004)

Taking into consideration that:

While some countries have abundant and untapped stores of water to support growth in water consumption, others already use most of their water resources, and some lack water to satisfy their current needs.

Sustainable access to safe and clean drinking water is one of the elements required to ensure the implementation of the Millennium Development Goals and the recommendations of the World Summit on Sustainable Development related to the improvement of health conditions across countries.

Improved water resource management contributes to the implementation of the Millennium Development Goals and the Plan of Implementation of the World Summit on Sustainable Development related to ensuring environmental sustainability that can help reduce the risk of disaster, *inter alia*, from floods, droughts and desertification.

Water is an essential resource for human well-being and economic activity and the World Summit on Sustainable Development identified water pollution as a major challenge that needs to be met to provide sustainable development.

Management of natural resources was one of the central themes of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).

Recognizing that:

In order to provide access to safe and clean water needed for improved health, sustainable economic development and environment, it is essential to develop and implement national and regional integrated water resource management.

Timely and accurate information is important to develop and implement efficient integrated water resource management, especially, in view of the fact that many water basins are shared by several countries.

Sharing timely information and assessing existing issues in water resources management can pose a challenge in some regions that share the same water basin while space technology could provide objective information, which could lead to building trust among countries sharing the same water resources.

Space technology can provide tools necessary to collect various types of real time data that can be used by planners and decision makers in charge of management of water resources to understand water systems and effectively manage available water resources.

Space technology can provide critical information on water resources in a timely manner with the use of remote sensing and telecommunications capacity.

The Symposium participants:

Agreed that pilot projects on the use of space technologies in water resource management were important tools to develop experience and build capacity in developing countries and to demonstrate the usefulness of space applications to high-level decision-makers.

Agreed that it was important to move from experimental and pilot uses of Earth observation data in projects on water resource management to operational and sustainable use of such data in those projects. At the same time, the participants recognized the importance of standardizing methodologies for the use of Earth observation data and equipment, for data collection as well as for data transfer and analyses.

Agreed that it was necessary to provide customized and understandable information to decision makers and end-users involved in management of water resources. The Symposium participants also concluded that remote sensing data and data products needed to be distributed to all levels of a society to allow each person to understand the conditions and limitations of water resources. Involvement of local communities in the management of water resources could provide “bottom-to-top” approach in making decisions related to water resource management.

Agreed that international organizations should strengthen capacity of developing countries to utilize remotely sensed data to enable developing countries to benefit from space technologies. At the same time, capacity building should be seen as a process that was initiated through projects and sustained beyond the period of project implementation. The participants agreed that it was important to upgrade equipment and capacity of remote sensing users in developing countries and to bring projects to a grass-roots level.

Agreed that public health community should be made aware of the opportunities provided by space technology in detection and monitoring of diseases. Public health community should attempt to use data from the newer satellites for disease monitoring and prediction, which have the potential for vastly improved spatial and temporal data related to water resources and the conditions controlling outbreaks and transmission of diseases.

Noted that science and society should be recognised as equal and key players in meeting the challenges of sustainable development and environmentally sound management of water resources. At the same time, scientists and players in the space applications field should disseminate information not only among scientific institutions, but also among programme implementers at the operational level where interventions were needed to, for instance, turn around disasters, like the lakes Chad and Aral.

Noted the positive experience of ESA’s TIGER Initiative and suggested to expand this initiative beyond the African continent, to Latin America and the Caribbean and Asia.

Expressed their appreciation to the Ministry of Foreign Affairs of Austria, the Ministry of Transport, Innovation and Technology of Austria, the State of Styria, the City of Graz, the European Space Agency and the Office for Outer Space Affairs of the United Nations for providing them with the opportunity and means to acquire knowledge on the many ways in which space applications can be used to enhance the management of water resources.