

**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)**

**REPORT BY THE CHAIRPERSON**

**“Protecting and optimizing water resources”  
Chairperson: Dr. P. Saccon**

**1. Lessons learnt**

Problems at different levels were identified (local, regional and global). The following **issues** were also identified:

- gaps between research community and end-users;
- lack of information at end-users and policy levels;
- heterogeneous technical capacity (education, training, infrastructure etc.) among countries in the same basin and even internationally;
- inadequate water management policies;
- sustainability – cross cutting issues (synergies between water and biodiversity, climate change, land degradation and persistent organic pollutants (POPs));
- conflicts of interests between social/political/economic and environmental aspects;
- knowledge levels of decision makers and local communities are different and need to be addressed.

**2. Recommendations**

The following **recommendations** were made:

- Involve local communities in the management of water resources, providing them with proper information so that they can try to convince policy/decision makers to change the existing policy (bottom-to-top approach). Empower them with knowledge for participatory implementation. It means that decision makers must change their attitudes/policies to enable the local community to take their own decisions.
- Bridge the gap between research and application (to improve the interaction between scientific community and end-users).
- Use remote sensing in an interdisciplinary way in order to achieve most effective results.
- Improve the capacity of science/technology communities in different countries, through knowledge sharing.
- Standardize methodologies (equipment, data collection, transfer and analyses, etc.).
- See capacity building as a process that is initiated through projects/collaborations and sustained beyond the period of collaboration.

- Some countries, like Afghanistan, don't have even basic data and infrastructure. Space Technology could support such countries in water resources management even through basic training and capacity building.

The following good opportunities were identified:

- TIGER Initiative of ESA is a positive initiative. This initiative could be implemented in Latin America, Caribbean and Asia. A preliminary proposal could be ready for the next Latin American Remote Sensing Conference.
- Symposia like this one are important to move further, as they give opportunities for the scientific community to meet, share experiences and to make the basis for new projects/collaborations at various levels.
- Existing case studies of successful application of space technology for water resource management (e.g. Chile, South Africa, etc.) are useful in helping to convince policy makers and other stakeholders.