

CEOS-TIGER Workshop: “Space Technologies for Water Resources Management in Africa”
Address by Ms BP Sonjica, Minister of Water Affairs and Forestry
8 November 2004

Mr Chairperson,
Dear Colleagues and Friends.

Thank you very much for affording me the opportunity to address the opening session of this important gathering. I would in the first instance like to extend the warmest of South African welcomes to all international delegates who have travelled to Pretoria for the workshop. May your stay in South Africa be a productive as well as an enjoyable one.

It is appropriate to start my address this morning by recalling the pledges made by world leaders in 2002, when they had met in Sandton, less than 50 km to the South from here, at the World Summit on Sustainable Development (WSSD). The Summit's adopted Johannesburg Plan of Implementation (JPOI), which outlines the global sustainable development agenda, includes a number of specific references to the urgent need for improving global water resource management, especially in Africa and the developing world. The challenges of water resource management, as rapid population growth and development pressures continue to impose additional stresses on scarce resources, are indeed at the heart of the African development and poverty eradication agenda. The situation is a vulnerable one, which rapidly, for example because of drought, can become a crisis.

The JPOI, as the Plan has become known, further includes a strong focus on the need to strengthen global Earth observation capacities as instruments to enable science-based policy- and decision-making for sustainable development. Within the context of water resource management, the JPOI emphasises the critical role to be played by Earth observation in promoting a better understanding of the water cycle. The Plan therefore calls and commits all signatories to concerted global investments and efforts to develop and optimally exploit the required observation capacities for these objectives.

Dear friends, I do not need to remind you that our world today, in many aspects have become a threatened world, plagued by the scourges of poverty, disaster and disease. Our commitment to the Johannesburg Plan of Implementation has therefore never been more critical. I would accordingly like to salute the Committee on Earth Observation Satellites, the European Space Agency and all partners in the TIGER initiative for their efforts to advance the WSSD agenda in such a concrete manner. You can count on the South African Government's full support in this regard.

It is my understanding, dear Colleagues, that over the next three days, you will be deliberating in detail the use of space technology for water resource management in Africa. I have no doubt that the impressive assembly of experience and expertise brought together in this forum, equips you well for the task of developing relevant and necessary projects. Equally important for you will be the building of a strong political platform for the implementation of TIGER. In this regard I appreciate the participation by so many African experts in this workshop and the close collaboration with the New Partnership for Africa's Development (NEPAD). It is indeed critical for initiatives such as TIGER to be aligned with established continental programmes such as NEPAD.

I thought it would be useful to share with you this morning some thoughts on the unique challenges posed to developing countries to optimally use Earth observation as instrument for sustainable development, specifically within the context of water resource management. In order to enhance developing nations' access to and capacity to use water cycle data for water resource management, there are indeed several and increasing human, institutional, and infrastructural needs, which must be addressed. I would like to briefly elaborate on four of these.

Chief among these challenges, in the first instance, is the access to observation data, which frequently for developing countries are inhibited by high and unaffordable costs. South Africa has previously in many international forums called for the elimination of barriers to the free and open exchange of data and software in order to for example provide water managers in developing countries with all necessary information and tools for analysis and decision-making. I would like to reiterate this call and express my appreciation for the European Space Agency's planned availing of free data from its ERS and ENVISAT satellites to Africa under the TIGER initiative.

Secondly, a comprehensive capacity-building effort is required, since many developing countries lack the basic capabilities needed to access, interpret, and apply water cycle information available from satellite systems. While hardware and software capabilities are quickly improving for much of the developed world,

developing countries are increasingly burdened with outdated hardware and expensive software that requires high levels of expertise to use effectively. From a human resources perspective, specific interventions such as the training of technicians, programmers, software engineers and analysts who will be able to tailor new techniques to specific regional water management applications are needed. The need for the investment in the strengthening of developing nations' own knowledge generation and innovation capacities is indeed paramount, specifically their scientific and technological capacities related to operational and experimental satellites, and advanced data assimilation capabilities

Thirdly and related to the capacity-building requirements, is the imperative need for the development of regional and country specific solutions. A "one size fits all" approach to Earth observation and water resource management is precluded by the many social and economic difference between countries and regions. A continued dialogue between the providers of advanced data systems and the associated data system specialists in the developing countries is therefore necessary to ensure strategies tailored to each country's specific water needs are developed.

In the fourth and last instance, I would like to highlight funding needs. Within the framework of development assistance and cooperation policies, it is imperative to provide for the financing of the recurring costs related to maintaining national expert personnel and covering the operational and infrastructure costs employed and incurred in Earth observation and water management programmes. It is my hope that partnerships such as TIGER will also provide a platform for meaningful engagement with the donor community in this regard.

These challenges I have discussed are of course also addressed in a comprehensive and integrated manner, with other societal benefit areas, by the Group on Earth Observations (GEO) in its work to develop an Implementation Plan for a new Global Earth Observation System of Systems (GEOSS.) The Director-General of the Department of Science and Technology and one of the GEO Co-Chairs, Dr Rob Adam, will of course address us later on this unique global partnership. I would, however, like to urge the close alignment of TIGER with the work of the GEO.

In conclusion I would like to emphasise that we should always remember that in developing nations, water limitations present some of most important contributing factors to poverty and human misery. Food security, well-being, and ultimately economic and political stability depend upon the availability of reliable supplies of clean water. Initiatives such as TIGER, which will deliver enhanced and timely information for water resource management, are therefore of critical importance to developing nations. I wish you a fruitful workshop, and success in addressing this important agenda. Your efforts are indeed appreciated.

I thank you.