

**ADDRESS BY MR RONNIE KASRILS, MP MINISTER OF WATER AFFAIRS AND FORESTRY AT THE LAUNCH OF THE NEW MBA PROGRAMME IN WATER MANAGEMENT OFFERED BY THE UNIVERSITY OF NATAL ON SUNDAY, 21 JANUARY 2001 IN PIETERMARITZBURG**

Ladies and Gentleman, honourable guests

Let me congratulate the University of Natal with this initiative, which will boost the practice of water resource management in South Africa and indeed, the whole African continent. With this MBA degree, you are venturing into a process which combines the stringent requirements of pure academia with the creation of appropriate solutions for a future based on sustainable management of our scarce water resources.

The promulgation of our National Water Act, 1998 (Act 36 of 1998) has given the Department of Water Affairs and Forestry the necessary leverage to focus on the protection of our limited water resources, as well as ensuring the improved and equitable distribution of this precious resource. This process has highlighted the need for:

A more educated public, and more importantly; the need for a trained and skilled cadre of resource managers, particularly those from historically black and marginalised communities. We have to ensure that the socio-economic gains from better water service delivery and infrastructure development will be done in such a way as to be sustainable without compromising the natural environment. For this process we need holistically trained individuals who are both technologically equipped, and who understand delicate interplay between the human and natural environments.

For South Africa, appropriate capacity-building, training and skills development means that options can be created for food production, economic development and the ability to protect natural systems despite the challenges posed by the availability of water. Unless managed effectively, water resources will become a key constraint to the development of our country, continent and indeed the universe.

More positively, the ongoing search for solutions to the equitable and sustainable allocation of water resources presents an important opportunity for improving

livelihoods and for stimulating local economic development. The role of education has always been an integral part of the transformation of our society – with the knowledge that we will continually have to rise to the challenges posed by our country of extremes. Our democracy has certainly challenged conventional knowledge. It has forced us to look beyond conventional knowledge. It has forced us to look beyond conventional methodology and wisdom, and encouraged us to incorporate different aspects of the rich diversity of our cultures into our decision-making mechanisms and institutions.

This perspective also influences the effective and sustainable management of our water resources, which we consider as a crucial underpinning of our existing economic development, as well as of poverty eradication and development programmes. Here, all role-players – government, business communities, individuals – must work together as a team to achieve better understanding.

Although many treat resource management as a purely scientific exercise, it is only partly the case. Resource Managers, across the globe, are increasingly acknowledging the importance of considering socio-economic and political consequences in their daily decision-making and organisational structures.

A further challenge that we face, is the move from a supply-driven paradigm to an integrated approach. That is to say that infrastructure development, water demand management and water quality management should be harnessed together in order that water is used in the most beneficial and efficient way.

Let me summarise the above by saying that water resource management should be a multi-disciplinary exercise involving all sectors of society, to ensure:

- The planning and development of our national water resources;
- The regulation of water allocation;
- The regulation of water use for purposes of water demand management, abstractions and water quality management;
- The prevention of pollution of our water resources;
- The collection and dissemination of information on water availability – of surface and ground water including the quality of available resources;
- The control over dam safety, flood and drought management; and

- International co-operation particularly with neighbouring countries with whom many of the rivers of South Africa shared

It is with this scenario that I encourage you, as contributions to integrated water resource management to address the following research issues, as a means to implementing a sustainable future:

- Research into physical and technical properties (low cost water treatment technologies, regional hydrological responses to climate change, low flow regimes and drought mitigation, relationships between ground and surface water, methods to assess water use efficiency over various crops / cropping systems;
- Research into data and information systems, including processing and storage;
- Analysis, dissemination and use of computer models in decision-making;
- Community advocacy and involvement in water resources management (Community participation in the advocacy and the processing of information influencing political processes regarding the water sector);
- Public awareness in development and management of water resources including issues relating to internationally shared watercourse systems;
- Research into planning and management, and of operational modalities of IWRM including the important role of gender in decision-making processes in water resources management;
- Best management practices in rural and urban settlements; and
- Private and public sector partnerships in WRM, groundwater management, water and environmental linkages and resource economics.

There are many other issues that can be tackled in our quest to reduce the pressure on all our natural resources. But I will re-iterate at this point the University of Natal have undertaken an important step in offering a course that encourages a broadening of the academic senses.

Integrated Water Resources Management is a relatively new concept in Southern Africa and South Africa. There is little knowledge of how each SADC country is approaching integrated water resource management problems, what research is being carried out, and what each country's comparative strengths are. The fact that many SADC countries share international river basins adds to the need for co-operation in integrated water resources management.

We should remember, that water resource management is a tool, and not an end. It is only one element in the struggle to build a socially and environmentally just society. For us the ultimate purpose is to create a society in which there is no more poverty, to create a world in which all human beings have sufficient food and water, a place to live, a job, a clean and healthy environment, education, and a chance for a life of dignity and self fulfilment. As Franklin Roosevelt once said: “The test of our progress is not whether we add more to the abundance of those who have much, it is whether we provide enough for those who have little”.

Here it is important to recognise that it is not only the amount of water per capita that must be taken into account when considering the question of water scarcity, but also the question of social adaptability to such pressures. Some interesting recent explorations around the question of water scarcity have looked at scenarios of physical abundance and scarcity of water, and what could be called “structurally induced abundance” or “scarcity” of water.

In a situation of “structurally induced abundance”, the impacts of physical water scarcity are countered by social and technological adaptation. This situation calls for a rationale where “water development and management is based on a participatory approach – involving users, planners and policy-makers at all levels.” It is the recognition that people lie at the heart of water resources management. It does not remove, however, the challenge of how to make complicated technical information accessible to our citizens – many of whom have been denied access to formal education, as well as speaking languages other than English.

Ladies and gentlemen, we have crossed the proverbial threshold of a new millennium. We stand at the brink of major changes in water resources management in South Africa. An exciting and challenging future lies ahead of us.

The National Water Act is a codification of the move from the old approach to water resources management, to a new, more sophisticated, people centred approach. We are moving into a future in which we must change, fundamentally, how we think about water. We are moving into a future in which we must recognise the physical limitations of water availability; in which we must recognise the devastating impact that we are having on the environment and on aquatic ecosystems.

To do this we must increase our understanding of our water resources of how they are used, by whom, and for what purpose. We must understand the social dynamics that underpin our use of water. We must increase our social adaptability to use less water. Above all, we must increase our human capacity to use water well.

When we are talking about water resource management, we are venturing into one of those emerging sciences where, typically, facts are uncertain, values in dispute, stakes high and decisions urgent. At the same time one of the key challenges for us will be giving voice to the poor, where particularly black students not only gain better educational opportunities, but also bring important dimensions to the development of water resources. And this, it seems, is what will be achieved by the launch of your MBA in Water Management.

I am already looking forward to the moment, when your first graduates will join us.

This invitation gives me hope. I thank you, and congratulate you with this endeavour.