

## **THE HIDDEN TREASURE**

**Opening Address by the Minister of Water Affairs and Forestry,**

**Mr Ronnie Kasrils, MP**

**delivered at the**

**Congress of the International Association of Hydrogeologists**

**Cape Town**

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Chairperson, honoured guests and international delegates, it gives me great pleasure to welcome you to our country and the Southern African region.

The fact that you have chosen to hold your first congress of the millennium here is of particular importance to us because South Africa is a water stressed country; within a water stressed world. There are certain facts about groundwater - one of our planets great hidden treasures that need to be widely known and understood, beyond the fascinating realm of geohydrology. In summary:

- Groundwater comprises 97% of our world's freshwater resources.
- Supplies 1½ billion urban dwellers.
- Used extensively for low-cost rural water supply.
- Increasingly developed for large and small-scale irrigation.
- Reliable in drought.

- Cheap to develop.
- Strategic reserve insurance against catastrophic events.

In South Africa, the Department of Water Affairs and Forestry is the custodian of the country's water resources. We have the difficult job of balancing the long-term sustainable use and the protection of our precious water resources. If we are to balance water supply with demand, especially in meeting the needs of the poor who were without adequate safe water or no such supply in the recent past, we will need to make increasing use of our groundwater resources.

Since the election of our first democratic government in 1994, we have supplied six million rural people with safe basic water at a cost of R3, 8-billion. This is a significant achievement, which cannot be underestimated. In many areas, groundwater has contributed to this supply. In our Northern Province it is estimated that over 75 percent of domestic demand of mainly rural people is met by groundwater.

In many other parts of South Africa, North West Province, KwaZulu Natal, the rural Eastern Cape and the semi-desert Northern Cape there is much reliance on bore-holes for survival. But I would say we have so far only scratched the surface. Yet there exists outstanding scientific and technical

expertise in this country based on our mining and geological history. This expertise must be tapped, encouraged and exploited to further our people's needs and South Africa's agricultural and industrial development.

Just last week I visited a drilling site near Citrusdal some 150 km north of Cape Town near the Atlantic seaboard. There I learnt from a group of hydrogeologists of the extent of the Western Cape aquifer more precisely the Table Mountain group aquifer stretching from the Western Cape to Port Elizabeth and the vast supply of pure precious water flowing in the minute cracks of the rock strata. Should we be able to effectively tap into this hidden treasure we would go a long way to resolving our problem of water supply in an efficient, cost effective and sustainable way far into the future. In fact drilling tests so far, and the preliminary determination of this massive aquifers parameters could well see us sitting on one of South Africa's greatest treasures, more valuable in the long run than this country's gold and diamond wealth for nothing can compare to clean water for the well-being of our people, and the sustainability of our economic development.

The provision of water to meet basic human needs remains one of the biggest challenges faced by our government. We have an enormous challenge to speed up the delivery of safe water to another eight million

rural people, who are still without access to safe water. We have a challenge to ensure the adequate supply and protection of our water resources for the duration of this century and into the future.

In our search for ways to reduce the backlog inherited from our inequitable past and to eradicate poverty, South Africa has formulated some of the most progressive water legislation in the world. We are very proud of our National Water Act, promulgated in 1998, and view this piece of legislation as amongst our significant achievements since 1994.

The Act recognises international obligations and basic human needs as priorities for water allocation, and, for the first time, makes environmental allocation in the Ecological Reserve a priority.

Our old water law separated groundwater from surface water resources. Riparian land ownership rights determined access to groundwater throughout our country. Now groundwater is specifically recognised as having the same standing in law as surface water resources and water managers are instructed to take into account every component of the water cycle and to manage it in an integrated way.

Two years ago the Southern African Development Community (SADC) produced a landmark report on the management of groundwater for the region. A key point in this report is the fact that groundwater management conditions, despite a considerable variation in basic groundwater characteristics, were surprisingly similar from Tanzania to Botswana, Zimbabwe and in South Africa.

In most parts of the region there are still large backlogs of unmet basic water supply needs. This contributes to widespread rural poverty and ill health. Despite considerable use of groundwater, there is virtually no monitoring of the sustainability of supplies.

A SADC task team however is well underway with the development of minimum common standards for groundwater development in the region. Another task team is compiling a regional hydrogeological map and atlas.

In order for South Africa to accelerate water delivery and to ensure a better life for all, we need a comprehensive strategy, taking into account both surface and groundwater supplies.

We need to ensure sustainable use of groundwater by meaningful monitoring of our groundwater supplies and ensuring that every precious

drop abstracted is used efficiently. We need to improve our understanding of the resilience of our groundwater resources and understand how global warming will impact on our reserves.

In addition, we also need innovative solutions to our water supply challenges. We certainly need new solutions to age-old problems, such as sourcing supplies from the low yielding, brackish groundwater resources of the Northern Cape. We also need some practical thinking on how best to implement sound scientific principles for the benefit of all.

One of the huge benefits of groundwater is that its abstraction can be locally controlled and monitored. An example of such local capacity building is the village. In the village, the well is widely seen as the source of life and security for the local community and with sufficient local involvement, the responsibility for groundwater management can effectively be devolved to a local level.

In certain areas of our country, which are as yet without water services, underground water can provide the necessary supply. Until now, boreholes have been operated by handpumps, which involve strenuous effort and are very easily broken. Diesel, petrol or electric pumps have the constant

financial burden of fuel and maintenance costs. The rural landscape is littered with disused boreholes.

One of the measures aimed at overcoming these problems of cost effectiveness and sustainability, while simultaneously providing the minimum basic supply to the poorest of our country, has been the recent establishment of a programme to install playground roundabouts, so called merry-go-rounds.

While children play and make merry on the roundabouts, water is pumped into elevated storage tanks by their energy. The storage tanks are also used to display public health messages, in particular, around HIV and AIDS.

A public-private partnership programme has been put in place to install the roundabout pumps, particularly in rural schools. Seventy sites will be located within KwaZulu/Natal before the end of the financial year, particularly in areas affected by cholera in order to mitigate the spread of the disease. We have an initial partnership with the World Bank, Kaiser Foundation and the manufactures to install 160 in our rural areas as a starter. Innovation and appropriate technology is a necessity not only for the developing countries but for our entire water stressed planet.

We look to you, the scientific groundwater community, for innovative solutions to our water supply challenges.

We still have a long road ahead of us to deliver clean water, develop safe sanitation and sustainable use of resources and to ensure that our commercial and subsistence farmers have sufficient supply of water to grow their crops and feed our people.

After becoming Minister of Water Affairs in President Mbeki's Cabinet just under 1½ years ago, I confronted the challenge of water service delivery to millions of poverty stricken South Africans.

On a chilly day in the foothills of the Drakensberg Mountains of the Eastern Cape I arrived at a village where we were drilling for water. I will never forget the joy of the villagers as water was struck. It was a day when I personally experienced with those villagers the magic of discovering this hidden treasure. The life of those villagers has been transformed. No longer the daily trek by the women in search of often polluted surface water.

Groundwater has become an important part of our strategy to supply this life giving resource to our people. I want to encourage all our



hydrogeologists throughout this Region and internationally - to be at the forefront of uncovering sources of this treasure for the good of humanity. Governments must give you full support. It is important to assess past achievements in geohydrology – it is vital to debate how to meet the challenges of the future. Best wishes for a fruitful four days of this 30<sup>th</sup> Congress of the International Association of Hydrogeologists in Cape Town and congratulations to the Groundwater Division; Geological Society of South Africa for hosting this most important event.

**Viva Water Pure & Clean**