

**Address to meeting of Asian Ministers of Water Resource, Bangkok, 23 May  
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**WATER RESOURCE MANAGEMENT, POLICIES,  
REFORM – A SOUTH AFRICAN PERSPECTIVE**

*Ronnie Kasrils,*

*Minister of Water Affairs and Forestry, South Africa*

When I was invited to give this address, I accepted immediately. On the eve of the World Summit for Sustainable Development in Johannesburg, the South African Government believes it is critical that the developing countries of the G-77 should address the challenges of world development in a united way and this event provides a wonderful opportunity to continue to build a unity of approach in the water sector.

But what, I asked myself, can we bring from Africa to the debates about water in Asia?

Africa is relatively arid and our major challenges tend to be about shortages and drought. Meanwhile Asia is largely humid and your challenges tend to be about the problems of excess and floods.

The countries represented here have a long tradition of irrigated agriculture; In Africa, with a few honourable exceptions, this is relatively new terrain.

But there are also similarities. In our region, we have a mix of middle income countries like South Africa, Algeria, Egypt and low income countries like Mozambique, the Democratic Congo and Ethiopia reflecting in some degree the spread of countries represented at this event.

We have some great rivers, the Nile and the Congo, like your own basins of civilisation on the Yangtse and Mekong. And in both regions, we have rivers that we have to share and manage together with our neighbours. But we also have, as in Sri

Lanka, Indonesia and the Philippines, many countries like my own, largely dependent on a large number of relatively small river systems.

So I believe there is sufficient in common between our diverse regions for me to explain what we are doing in South and Southern Africa in a way which may be relevant to your deliberations here.

### **Political Context**

What I believe will be of interest to you are the forces that drove our water reforms.

The first is that our democratic revolution in 1994 came at an opportune time. South Africa uses a substantial proportion of its available water, nearly 30%, not including the 15% which had already been reserved for environmental purposes to sustain our estuaries and conservation areas. After three decades of major infrastructure development, culminating in the US\$2 billion joint Lesotho Highlands Water Project, which provides the industrial heartland of country with water resource, it was obvious that infrastructure alone would not meet our needs. A new approach to water management was required.

Secondly, the nature of our political revolution called into question some fundamental issues in water management. Because of the history of gross human rights abuse under colonialism and then apartheid, the decades of discrimination based on race, we have built a strong human rights culture. While recognising that this is a controversial subject in many countries, this approach to both social and environmental rights has provided us with an important foundation for our water law reform.

Third, our general reform of the structures of government in our country has created opportunities and made it easier to introduce water reforms that will put us on a sustainable development path in our country and region.

**Key issues**

When in 1994 we turned to review the policy and legislation governing our water, we immediately recognised that water, as it flows through the landscape, brings a number of benefits to a range of users whilst it must serve basic human needs. It waters the wide fields of commercial farmers; it nurtures the crops and stock of rural communities; it provides recreation for our children, our friends, our families; it supports our power generation, our mines, our industry, and the plants and animals that make up ecosystems.

Water gives life. The amount and nature of the available water determines the extent and nature of that life. The amount and nature of water available also determines where development can take place. So we determined as a first step that South Africa's water belongs to its people. It is the task of the South African Government to care for this water, to seek its fair distribution, and to facilitate its wise use for, amongst other things, social and economic development.

Development is crucial to ensure that we can eradicate the scourge of poverty that stalks our land. Under apartheid, development benefited a small white minority, while black communities were under-resourced and underdeveloped and remain the areas where poverty is most intense.

In 1994 the first democratically-elected Government of South Africa put forward, as its manifesto, the Reconstruction and Development Programme. The programme set out five key programmes: meeting basic needs; developing our human resources; democratising the State and society; building the economy; and implementing the Reconstruction and Development Programme. Its implementation approach was that people who are affected by decisions should take part in making those decisions.

Water is an essential ingredient of each of these programmes.

The Constitution of the Republic of South Africa was passed in 1996. The Constitution contains both our Bill of Rights and the framework for Government in

South Africa. Two provisions of the Bill of Rights are particularly relevant to the management of water resources. These are sections 27 and 24, which state that:-

\* “Everyone has the right to have access to (among others) sufficient food and water, and that the State must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of these rights.”

\* “Everyone has the right to an environment that is not harmful to their health or wellbeing; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation, and secure sustainable development and use of natural resources, while promoting justifiable economic and social development.”

These two documents - the Reconstruction and Development Programme and the Constitution - provided the impetus for a complete review and revision of the policy and law which relates to water, and resulted in the development of the National Water Policy for South Africa (1997) and the National Water Act (1998).

And although my talk must focus on water resource management, I should emphasise that the political legitimacy and support for the reforms we have introduced did not come from this big vision of the role of water resources. Our people had more immediate needs in 1994 with 12 million of our rural people without access to basic water supplies and 18 million without sanitation. In rural areas, access to safe water was found to be the second highest priority after jobs. So my Department’s aggressive programme to improve basic services – we have served over seven million people in eight years - earned us the political support to introduce relatively complex long term reforms in water resources.

## **Objectives of Water Management**

In South Africa, we have been through a remarkable process of revising our water law. This exercise was driven by two key factors: the demands and dreams of our people in a new democracy and the limited physical resources at our disposal.

Part of our process of reforming our water law was to ask ourselves what the purpose of water management is. One way of describing it was that "the core objective of water resource management... is to ensure that water is available in sufficient quantity, quality and reliability for the development and well-being of the nation."

But was that sufficient? We were unable to ignore, in the South African context, that we were two worlds within one country providing the contrast of great wealth and development with much poverty and underdevelopment. The ingenuity of our engineers over a century has already linked the Orange river mouth on the Atlantic with the fresh water lakes of Northern KwaZulu Natal on the Indian Ocean, more than 3000 kilometres away. A tunnel of monumental proportions takes water from the westward flowing Orange River to our port and industrial complex of Port Elizabeth while a portion of its waters diverted by the Lesotho Highlands Water Project is discharged, after use, towards the Limpopo, thus linking our northern border with the southern coast. But despite these engineering feats, the reality is that we are facing an increasing imbalance between supply and demand.

After much discussion, we finally agreed that our vision was not to increase supply to meet demand. Rather, "the objective of managing the quantity, quality and reliability of the nation's water resources is to achieve optimum long-term, environmentally sustainable, social and economic benefit for society from their use".

This understanding was, of course, strongly influenced by the international debate that preceded our work, from the United Nations Conference on Environment and Development in Rio in 1992, to the Dublin principles and the growing international understanding of the need for integrated water resources management.

Our task is thus to manage the resource, to manage the tension between growing demand and finite supply, to ensure that what we have is used not just productively and beneficially, but optimally.

This is a simple, but far-reaching understanding and applies even in countries where water is plentiful, since the protection of the resource from the impacts of human activities also requires that we live within our means.

Our water legislation is premised on three fundamental principles: equity, efficiency and sustainability. Each of these principles is important for different reasons.

### **Equity**

The previous water legislation of South Africa - the 1956 Water Act - was not in itself racist. It did not do what the 1913 Land Act did, to reserve the majority of land for one race group. However, since access to water for productive purposes was tied to land through the riparian system, access to water benefited mainly those across whose land it flowed, or under whose land it was found. Access to water was thus similarly determined by skin colour.

The challenge facing our water managers was thus to address the need for equity in resource distribution. Too many of our people are poor. The goals of sustainability and efficiency cannot be divorced from this. Neither can the responsibilities of all South Africans to share water and to use it well.

We are now equipped with the legal mechanisms which allow for a re-allocation of resources from those who have been favoured by history to those who have been neglected. But we must also consider the complex linkages between society, the environment, and the economy.

As a first step, our law determines that water for basic human needs is a first priority. This water is reserved over and above all other needs.

But water is the lifeblood of the country in many ways. Water is one obvious tool in the eradication of poverty - providing a way for the poorest of people to survive and make a living, a burden which so often rests upon women in society. But often, water used by a large commercial farmer or manufacturing industry contributes far more jobs and delivers more taxes per cubic metre than would be achieved by allocating water for use by subsistence farmers.

It is the responsibility of the Department of Water Affairs and Forestry to guide the use of our water wisely in our search for social justice. The needs of industry, agriculture, the demands of cities and of ordinary people all need to be catered for, now and in the future. Water is helping us to promote unique partnerships between commercial farmers and poor rural communities in win-win relationships.

South Africa is moving slowly from a patriarchal society to one in which women are allowed, and encouraged, to take their rightful role as equals alongside men. So another important provision of the National Water Act requires the government to address the issues of gender inequity in water as much as it must address inequity arising from race or disability.

### **Sustainability**

We have increasingly understood, over the past few decades, the interdependence between humankind and ecosystems and our obligation to protect the natural environment. Even as we promote development we must meet not only the needs of current generations, but the needs of future generations as well.

Our National Water Act recognises this and again reserves a certain amount of water to maintain the environment, a reserve which takes precedence over all uses other than those for basic human needs.

While we recognise that we need new approaches to water management which pay at least as much attention to the software of water management, to instruments such as conservation and demand management, as to the hardware, I believe that we will

continue to need to store water, not least because of the increased variability and uncertainty caused by climate change.

As we face the challenges of climate change, I am struck by how poorly Africa is developed to cope with it. According to the World Bank, in the United States, they store 6 150 cubic metres of water in dams and reservoirs for every American; in South Africa, we store only 746 cubic metres per person; in the rest of Africa, it is only one tenth of that, 40 cubic metres per person in Ethiopia, just four in Kenya.

Our uncertain climate requires more not less storage. Despite this self-evident fact, we still have anti-dam lobbyists opposing storage projects. We will continue to build the storage we need but we have taken note of the guidelines of the recent World Commission on Dams. We believe that our current practice in relation to addressing the needs of people affected by dams and considering alternative management approaches already largely reflects those guidelines and in some cases, exceeds them.

### **Efficiency**

As a water-scarce country with an average annual rainfall little more than half of the world average, much of South Africa is semi-arid. Potential evaporation is higher than rainfall across most of the country. Our land is vulnerable to floods and droughts. All of us have shared the horror of flood waters sweeping away people, houses and roads. All of us have shared, with our farmers and our rural communities, the bitter longing for rains that never seem to come. Our water resources are limited, and we must use them efficiently, and in the best interests of all our people.

### **Integrated water resources management**

The three principles of equity, sustainability and efficiency come together in the field of water resources management to result in integrated water resources management. Integrated water resources management, as enshrined in the National Water Act, is intended to enable us to meet the needs of our people for water, jobs, and economic



growth in a manner that also enables us to protect and, where necessary, rehabilitate our aquatic ecosystems. Above all, integrated water resources management will enable us to grapple with the overwhelming need to use our precious water to assist in the battle to eradicate poverty and to remove inequity.

### **International rivers**

But we have to recognise that we do not face the challenges alone. For many years, the democratic forces of South Africa were supported by our neighbouring countries, often at great cost to themselves. So we have a particular duty and responsibility to our neighbours who are in most cases less well-off than we are.

It is also vital to our own interests that our entire region must develop if we are to eradicate poverty and enable our people to live with dignity. They potentially face many of the same challenges although at present, our neighbours are using a far smaller proportion of their resources than we do. Countries such as Namibia and Botswana, perceived of as arid (although because of their smaller populations, they have more water per capita than South Africa) are using only 5 to 10% of their usable water compared with South Africa's use which is approaching 30+%.

Rivers do not respect political boundaries so an important step is therefore to develop cooperative relationships on what we, in SADC, the Southern African Development Community call "shared rivers". South Africa shares four major river systems with neighbouring countries:-

\* The Orange-Senqu system is shared with Lesotho (trans-boundary) and Namibia (contiguous).

\* The Limpopo River is shared with Botswana, Zimbabwe and Mozambique (contiguous for the first two and trans-boundary with Mozambique).

\* The Inkomati system is shared with Swaziland and Mozambique (trans-boundary for both)

\* The Usutu/Pongola-Maputo system is shared with Mozambique and Swaziland (trans-boundary).

The SADC Protocol on Shared River Courses provides the framework for the management of these rivers, whilst the National Water Act gives international requirements a priority that is superseded only by the reserve for basic human needs and ecological requirements.

### **The role of Governments and effective development**

Unfortunately, as all of us know, it is one thing to be clear about an objective, and another to achieve it. The state is not a fashionable agent in this so called post-industrial world in which we all live. More and more emphasis is placed on the role of the private sector. Yet the developed part of the world, which is pushing this position, is characterised by high levels of infrastructure investment that in most cases would not have occurred were it dependent on the whims of the market.

There is a danger in accepting the same view of the state in the very different circumstances of nations which have not yet achieved an acceptably comfortable level of equilibrium. For example, on the eastern sea-board of South Africa, the Komati basin could support much more economic activity (and even development, were we to manage it right) in Swaziland, Mozambique and South Africa. But the figures show that it could take around 45 years to reap a return on the initial investments needed to tap those waters.

There are few private investors willing to wait for that sort of term to get a return. So we must depend on the states of the region to take the steps needed to harness un-exploited water resources. We will have to depend on the wisdom of governments to ensure that we build useful social and economic infrastructure.

In short, we find that in our region where there is still so much to be done we cannot accept institutional prescriptions appropriate to developed countries where the role of

the State in achieving a mature infrastructure as in the developed world has been played out. We have come to the conclusion, in water resources issues, that our challenge is to reinvent government, not to abandon it.

None the less, we have moved away from the old notion of the apartheid South Africa of a central, all knowing, all powerful state. In water resources management, we are in the process of establishing Catchment Management Agencies. These are statutory bodies which will perform water resource management functions in 19 water management areas throughout the country.

These agencies will enable us to manage water according to watershed boundaries, rather than provincial political boundaries. They are also designed to ensure that stakeholders can play a key role in decisions around water management that directly affect them. We hope to establish the first of these agencies in my country this year, and the rest will follow over the next 8 to 10 years. Already, however, my department is thinking, planning and managing according to these watershed boundaries, these water management areas, and not according to the old political boundaries within the country.

Our National Water Act is premised on wide consultation with the people of South Africa about how we should manage water. In the middle of this year, for the first time ever, we will be publishing a draft National Water Resources Strategy, for comment and input from the people of South Africa. The National Water Resource Strategy sets out the ways in which we aim to achieve integrated water resources management in South Africa. It describes the policies, strategies, plans and procedures by which this will be done. It is a remarkable document, the first of its kind in South Africa. It is a living and interactive document, that will continue to grow and change as the needs, capacity and understanding of our people change and grow.

Under the new water law of South Africa national government is defined as the custodian of the nation's water resources. But it is recognised that many of these resources serve more than only the people of South Africa.

In relation to our neighbours, the law reinforces the approach we have already begun. On a bilateral basis, we are committed, actively, to co-operation and a number of joint developments and studies are underway. At regional level we have ratified the protocol on shared river basins and we are keen to see the management of water given a higher priority within the regional framework provided by the Southern African Development Community.

Internally we continue to face a number of challenges. As I have mentioned, much of our water has already been allocated and is used in terms of an earlier riparian system which, because of the racist legislation of the country under apartheid, allocated water primarily to whites. We are now trying to demolish the foundations inherited from the past before we can build our future.

Historically, the bulk of South Africa's water has been linked to land. 87% of the land, particularly the productive land, was in the hands of a very small proportion of the population, the white farmers. But through a transparent, consultative approach we have managed to win over a large number of these farmers to understanding that the new system of water management is not a camouflaged attack on them but a genuine response to a national concern. In many cases they are responding with positive initiatives both to help us manage water more effectively and to do so in a way which opens opportunities for those previously excluded to benefit from it.

In the end though, the best assurance we can give all our citizens is that we are guided by our Constitution which affirms the rights of all South Africans to dignity and equality before the law.

## **Conclusion**

Let me conclude by addressing those matters which I believe are important for us all at the Coming Johannesburg Earth Summit.

First, I believe that we must keep the focus on the needs of the poor for basic water – and for adequate sanitation because it is about the protection of water quality as well as the recognition of human dignity.

Second, we should encourage all countries to adopt an integrated approach to water management as has long been advocated at the United Nations. Measures designed to help us, as governments, to do this should be supported.

Third, we must raise the impact of climate change on water management. It is increasing our water management costs, it is increasing our vulnerability to floods and droughts yet there are no mechanisms to fund mitigation measures to this threat which has largely been imposed on us by external forces.

Finally, I would commend to you the approach of SADC on shared rivers. We seek to work together to share the benefits from water use rather than squabble amongst ourselves over who can take how much water. We believe that an approach to sharing benefits rather than just sharing water makes water a source of cooperation not of conflict. In this year of the world Summit on Sustainable Development, water and our management of it is an appropriate metaphor for our development and our relations with one another.

In Southern Africa, we are trying hard to ensure that our management of water resources is a source of peace and development, both internally and with our neighbours, just as we would hope to see sustainable development leading to peace and democracy throughout the world.