



**The AGRI SA Water Conference: Water use and Food security: Policy and Practice  
Speech by The Minister of Water and Environmental Affairs, MS Buyelwa Sonjica  
At The Birchwood hotel Conference Centre, Boksburg  
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Distinguished guests

Ladies and gentlemen: goeie more

It is indeed an honour for me, in my capacity as the Minister responsible for water, to meet with the Agricultural Sector, the sector that is responsible to produce the food that feeds our nation. That noble responsibility has led to this sector being the biggest water user in the country. It is very important for me and the department, i.e. the Department of Water Affairs, to maintain strong relations with AGRI SA and the Agricultural Sector. Indeed it is a very important partnership. It is our responsibility as the Ministry and Department to ensure the partnership continues to exist and grow.

We live in a global world where we are all influenced by what is happening wherever else on our planet. You as farmers of our country may live in relative isolation on your farms, but you know that the rainfall on your farm and the reliability of the water in the river on your farm is influenced by climate change due to human activities. In the past few years, global warming has become very topical around the capitals of the world, albeit Africa, Europe, Australasia or

the Americas. This is simply because this phenomenon, as scientists tell us, is a great threat to our very existence. All of us must be concerned and involved in concerted efforts to mitigate against and adapt to the effects of global warming as much as we can, ensuring that the underlying causes of this phenomenon are reduced.

You are also aware that the prices you are paying for your equipment and inputs like diesel, electricity and fertilizers as well as the price that you get for agricultural products are influenced by world markets.

In South Africa, water is a scarce resource and there is increased competition for it between sectors and different water users. In our country we view water as a national resource that must be managed for the benefit of all citizens. It is for this reason that the Constitution sees water as a national competence and South Africa has a national Department of Water Affairs, unlike many other countries in the world, where you will only see water departments at provincial or local level.

For a considerable period now, some experts have been saying that the next world wars will not be about mineral resources, territory, imperialism, conquest and so on. It is said that the next wars will be fought over and about water. This is ominous stuff indeed and it would be foolhardy of any of us to ignore such warnings, especially as we are rated as one of the countries that are water stressed.

It is important to note that the reliability and the quality of the water on your farm, is also impacted upon by activities of other water users and development in your catchment. Without effective regulation, your water may dry up or the quality may deteriorate significantly.

The National Water Act (NWA) of 1998 and the Water Services Act (WSA) of 1997 provide the mechanism for us as South Africans to jointly protect and manage our water resources. Water management is delegated to a number of water management institutions, and the Department of Water Affairs plays the central regulatory role. I would like to convince you today that our regulatory approach is not only in the national interest, but also in the interest of everybody including commercial farmers who have a vested interest in our water resources.

A decision has been taken to separate the Department's Policy, Strategy and Planning Function from its Regulatory Function. A Chief Directorate for Regulation has been established this year and the intention is to develop it into a Branch so as to give high level focus to the regulatory function especially the Compliance Monitoring and Enforcement aspect. We see enforcement as a centralised function relying on the decentralised compliance and monitoring of water use and water services' activities at regional level.

Unauthorised or illegal water abstraction is of great concern for us. As such the DWA is in the process of strengthening its enforcement capacity to deal with unauthorized abstraction, over abstraction, unauthorized discharges and discharges not complying with the licence / authorisation conditions. The capacity of the Directorate: Compliance, Monitoring and Enforcement (also known as the Blue Scorpions) has been increased significantly. A total number of 14 Water Management Inspectors has been recruited and trained.

In the 2009/10 financial year, we have issued a total of 239 directives, 31 of these have been resolved positively and 14 are currently before the courts. The rest of these are undergoing the rigorous process of being resolved. We will intensify this aspect of our work to ensure that we bring to book all offenders.

We are working closely with the South African Police Service and the Public Prosecutors in the Directorate of Public Prosecutions to address water crimes that threaten the security of supply to lawful water users. In addition we are setting up environmental courts, in cooperation with our sister department, the Department of Environmental Affairs. We will invite you to the launch of the first courts in the near future.

I understand that water pollution is one of the areas of great concern for the agricultural sector today. Water pollution is caused by a number of factors, including agricultural practices, mining, industries and urban development.

Causes of pollution from agricultural activities include the use of pesticides, erosion, fertilizers, agricultural chemicals and animal waste. Agricultural activities posing risk to the environment are: piggeries, abattoirs, feedlots, tanneries, dairies, poultry farming, orchards, vineyards, vegetable units etc. As the Agricultural sector, you have a crucial role to play in conserving and protecting the country's water resources and ensuring its sustainability- because in doing so you are also securing your own livelihoods.

Water pollution is generally categorized as *point source pollution* and *nonpoint source pollution*.

Point source pollution can usually be traced to the "end of a pipe" and can be controlled by the regulation of water use activities, because the discharge of waste water is included in the definition of water use in the National Water Act. Point source pollution is usually relatively easy to detect, monitor and control.

Non point source pollution is generated by diffused land use activities and conveyed to waterways through natural processes such as storm runoff or groundwater seepage, and intensive crop irrigation. Non point sources of pollution are not so easy to control and it is thus in everyone's interest to try to ensure it is avoided. In the case of diffuse pollution from mining activities, the Department has developed the Best Practice Guidelines for Water Resource Protection in the South African Mining Industry and the Regulations on use of water for mining and related activities aimed at the protection of water resources (Government Gazette Notice 704 of 4 June 1999), which we intend to revise in the near future.

The Department is very concerned about the impact of deteriorating water quality on our water resource and on agriculture.

I am aware that the agricultural industry is currently very concerned about the impact of poorly managed sewage systems on the quality of water used for irrigation.

The Department regulates this matter through Chapter 4 of the National Water Act dealing with the regulation of water use. The discharge of waste or waste water into a stream is defined as a water use and may only be done if authorised by a water use licence or a water use authorisation. The licence / authorisation will lay down the conditions to which the

discharge must comply. One of the successful intervention methods we have developed is the Green Drop Certification Programme which is an incentive-based regulation approach that has been developed locally to address our unique challenges in the municipal wastewater sector. Currently we have more than 50 qualified assessors conducting consultative audits on the management of the waste water treatment works with the objective of guiding Local Authorities in the direction of excellence.

The 2009 Green Drop Report found that 203 waste water services systems out of the 449 (45%) assessed, scored better than 50%, measured against the stringent set criteria. 7.4% of all waste water systems were classified as excellently managed, which is encouraging and proves that the benchmark is not an impossible feat. We are well on our way to meet the 2010 target of assessing 100% of the municipal wastewater treatment works.

The design capacity of some of these waste water systems has been stretched to the limit due to population growth and other economic factors. Shortcomings in the local government funding model as well as the skills deficit in the labour market exacerbate the problem even further.

Our efforts to reduce the impact of wastewater effluent in the Berg River in the Western Cape promise to have major benefits for the agricultural sector, since irrigation water quality is bound to improve. A duplicate initiative is underway in the catchment of the Hartbeespoort Dam. These are but small steps but definitely major strides in the right direction.

Another concern to all of us and especially to the agricultural industry is the impact of mining on our water resources, our own health, food security and the safety of our food produced by irrigation in catchments affected by mining.

In the case of pollution from mining activities, my department has developed the Best Practice Guidelines for Water Resource Protection in the South African Mining Industry and the Regulations on use of water for mining and related activities aimed at the protection of water resources (Government Gazette Notice 704 of 4 June 1999), which is now due for revision to be in line with the latest developments in policy such as the Mining and Petroleum Resources Development Act.

Acid Mine Drainage (AMD) is caused by the exposure of rock containing certain sulphide minerals, like iron pyrite ( $\text{FeS}_2$ ), with air and water, resulting in the production of acidified water, containing elevated concentrations of sulphates and metals. AMD is largely associated with gold mining in the Witwatersrand and other goldfields, coal mining in Mpumalanga and KZN, and also with copper mining in O'Kiep.

Concerns and risks associated with AMD include low PH, high sulphates, elevated levels of heavy metals and radio activity, resulting in negative impacts on water quality.

In terms of the Mining and Petroleum Resources Development Act, Act 28 of 2002, as well as the National Water Act and environmental legislation, mines are responsible to manage the environmental impacts of their operations, in line with the polluter pays principle.

In a country like South Africa, where mining started more than 100 years ago, some of the mines are classified as derelict and ownerless (or abandoned). In terms of section 46 (1) of the Mining and Petroleum Resources Development Act, Act 28 of 2002, these mines may become the responsibility of the State.

Progress is being made in addressing some of these challenges. In the Olifants River Catchment, for example, the mine water problem is being addressed by the involvement of all stakeholders through the CMA, river forums (e.g. Olifants River Forum), mines, local authorities and other relevant departments. In addition DWA is actively engaged in efforts to stop illegal water use activities by mines and implement stricter control on discharges. A 3 year project to identify pollution sources in the Olifants River has been started.

Discharges are only allowed if the water complies with acceptable criteria and this is forcing mines to treat their water. In most cases, lime treatment only is practiced before water is discharged back into the environment. However, in two cases, desalination plants have already been built by the coal mining industry in the Olifants River catchment to treat the water to potable water standards (at New Optimum and Emalahleni AMD treatment plants). The coal mines are really setting the standard and we are hoping that the gold mines will follow suit.

In the Witwatersrand area, current initiatives revolve around the possible formation of a Proposed Public Private Partnership, which will see government & mines contributing to the capital costs of necessary infrastructure for the pumping and treatment of mine water. The relative cost of desalination has decreased over the last decade, making it possible to treat the mine water to drinking water standard and to recover a significant portion of the cost of treatment by selling of the water for municipal or industrial use, as demonstrated by two desalination plants already built by the mining industry in the Olifants River Catchment.

Our approach has always been that mines are responsible to mitigate against the impact of mining on water resources and the environment in line with the Polluter Pays Principle. DWA and The Department of Mineral Resources are in the process of establishing a new inter-departmental team of senior executives to consider the problem in the Witwatersrand area. This initiative cannot end there; it has to cater for the challenges in Mpumalanga and KZN as well; it has to be viewed therefore as “work in progress”.

I understand that research has indicated that treated coal-mine water could be used for irrigation of some crops. More research should however be done to evaluate the long term effects on soils and the health effects of using treated mine water for agricultural production. We will need co-operation and joining of forces with the agricultural sector in order to ensure accuracy in the findings.

The NWA allows for existing lawful water use, as defined therein, to continue until a process of compulsory licences is implemented.

As custodians of the national water resource, the Department of Water Affairs must promote the beneficial use of water in the best interests of all South Africans.

The authorisation of water use for abstraction and storage should promote equity, redress the effects of previous discriminatory legislation, address poverty, generate economic

growth and create jobs. It must promote the sustainable use of water resources, promote water conservation and the protection of water resources.

A primary focus of water allocation processes is to redress past imbalances in water allocations and contribute to Broad-Based Black Economic Empowerment (BBBEE) and gender equity. It should be appreciated that equity is one of the fundamental principles of the NWA and thus cannot be compromised.

Applicants from the agricultural sector must fully motivate how their application will redress the results of past racial and gender discrimination and why it is in the public interest. Many applicants from the agricultural sector merely respond by stating that their total revenue is less than R5million and that they are therefore classified as Exempted Micro Enterprises in terms of Broad Based Black Economic Empowerment requirements. Such a response provides no motivation why an application should receive priority over a similar application from another applicant or over applications from other sectors.

I want to emphasise that the transfer of water from one water user to another is subject to the granting of a licence to the new water user and therefore subject to the same criteria.

The decision to approve or not to approve a licence application is complex and can only be taken in the context of complete information. The Department has acknowledged that a significant backlog has developed over the years with the processing of licence applications. In response to it, we initiated Project Letsema this year to eradicate the backlog. A project team led by senior officials of the Department has been created to work full time on the backlog and to eradicate it by the end of this year. I am happy to report to you that good progress is being made. The agricultural sector can contribute to Letsema by expediting the provision of the information required for licence applications.

Ladies and gentlemen, South Africa is a water scarce country and the largest portion of water is already authorised for irrigation. Other sectors like mines, industries, municipalities, previously disadvantaged communities and the environment are also competing for this already allocated water and motivating that their applications are in the national interest.

In catchments where the water resource is already over-allocated, the compulsory licensing process will be initiated as soon as circumstances allow. In these catchments, commercial farmers must expect that their water allocations for irrigation could be curtailed. It will therefore be wise to start with water conservation measures as soon as possible to reduce the water demand and to increase the agricultural output per cubic metre of water consumed. The agricultural sector is the biggest water user and should make use of the latest available research and technology to conserve water.

The process of compulsory licences will start soon in the following 4 catchments:

- Inkomati Water Management Area, including the Inkomati, Crocodile and Sabie River systems. This is a Transboundary River shared by South Africa, Swaziland and Mozambique and this process will also have to consider the requirements of our neighbours and the international treaties on this river, in line with the Revised SADC Protocol on Shared Watercourses.
- Jan Dissels catchment in the Western Cape.

- Umhlathuze catchment in KZN.
- TOSCA, an exclusively groundwater area in the Molopo catchment in the Northern Cape.

Finally I want to thank you for your attention and I trust that you will understand that our regulatory approach is not only in the national interest, but also in the interest of commercial farmers who have a vested interest in our water resources. We need to be mindful of the fact that our challenges become smaller if we approach them as a collective rather than as individuals.

Dankie, thank you, ke a leboga!!