

Approved, except for one minor blemish.  
You haven't spelled my name correctly  
at the end!

D.S.H  
8/10/86

DRAFT

VICE-CHANCELLOR'S SPEECH OF WELCOME AT THE SYMPOSIUM ON DAM SAFETY  
LEGISLATION

OCTOBER 15, 1986

I am happy to welcome all of you to Rhodes University today - as representatives of Steffen, Robertson and Kirsten Inc, farmers, and others interested or involved in the vital issues of using water to the best advantage in this parched country.

I am particularly glad that the Rhodes University Hydrological Research Unit and Steffen, Robertson and Kirsten have joined forces to produce a programme of topical interest in this way. This symposium is a good example of the manner in which the results of academic research can and should be welded together with professional expertise and experience - in this case irrigation engineering - to provide a service to the community.

The Hydrological Research Unit, which was established in the Department of Geography in 1973, has done a great deal of pioneering work, most of it under contract with the Water Research Commission, in investigating the little-known hydrology of arid and semi-arid regions.

The Unit set up a monitoring network in the dry Ecca River catchment area to recall rainfall, runoff, and the factors affecting them as the basis for the mathematical prediction of runoff. The Unit has since extended its studies to the sub-humid, forested catchments of the



southern Cape between George and Knysna. Further work has also been undertaken on the problems of irrigation return flow in the Fish River and Sundays River valley areas.

Anyone who has grown up in South Africa, particularly in the Eastern Cape, knows the importance of water and water conservation, the devastation caused by drought, the dangers of flood, and the economic and ecological toll taken by soil erosion. The wind pump, reservoir and farm dam are familiar landmarks throughout the rural areas of the land.

Watching the rain fall with varying degrees of intensity over the past few weeks, I have been aware that this natural process sets off a complex series of events. Some water seeps into the ground, some runs off to join rivers and streams, some is caught in water tanks and some seems to lurk in puddles waiting for the arrival of a freshly-polished shoe. Groundwater, replenished by rainfall, is an essential element in the country's survival, but the layman knows very little about the dynamics that make it available to him. Farm dams may be easier to understand, but if they are to be used to their full potential, building and maintenance methods need to be constantly reviewed and updated.

Although we do not have control over the weather, the human element plays a large part in the use or misuse of water. The more we learn about the best means to conserve and use water, and distribute it fairly to all those who need it, the better for all of us in this country. The fact that new legislation has been introduced to govern



the safety aspects of dams may seem somewhat daunting now, but if it can be used to prevent loss of life, erosion, or any other catastrophe, - economic or ecological - it will be worth the trouble of its application.

At Rhodes we are very much aware of the community around us. It could be argued that this is because we are set in a small town, without the distractions of the bright city lights and the frenetic lifestyle that goes with them. This may be part of the truth, but it is undeniable that researchers at Rhodes are involved in work on a number of projects with direct bearing on the life of the eastern Cape. It is certainly true that many of our past students are farmers in this area, and many of our present students are the offspring of farmers in the eastern Cape. These links mean that the University has strong and warm links with the farming community which are, I believe, of mutual benefit.

Much of the research work at Rhodes is of direct interest to the farmer. The Leather Industries Research Institute (LIRI) is one of the best known of our research family. Since its establishment 44 years ago, LIRI has built up a world-wide reputation in the fields of hide and skin preservation, leather manufacture, footwear technology, wastewater management and pollution control, and training. One of its more recent projects was a study of the effects of 'pour-ons' on hide quality.

The J L B Smith Institute of Ichthyology and the Department of Ichthyology and Fisheries Science at Rhodes are researching the possibilities and practicalities of aquaculture - a long-neglected area of agricul-



tural expertise in southern Africa. An experimental fish farm has been  
x in operation for just over a year, providing a basis for research which,  
we believe, will be very important to the South Africa of the future as  
the country seeks ways to provide protein-rich food for its population.

The Rhodes Institute for Freshwater Studies has extended its activities  
from the study of aquatic ecosystems in coastal areas to include re-  
search into the biological structure and functioning of a variety of  
southern African aquatic ecosystems. The Institute has recently been  
involved in an extensive collaborative survey of the P K Le Roux Dam on  
the Orange River. It has also collaborated on a project which assessed  
the environmental and water quality status of the Buffalo River catch-  
ment. Concern about the ecological effects of reduced freshwater flow  
into estuaries as a result of river damming has led to studies of the  
freshwater-seawater interface in the Keiskamma River and estuary.

Since the eastern Cape is an area where ticks are endemic, it made  
sense that a Tick Research Unit should be established here. The Unit's  
x current research is mainly concerned with the life-cycles and ecology of  
the tick species of major economic importance to stock farmers in this  
region, and it has recently expanded its activities to include work on  
the internal parasites of domestic livestock.

Apart from ticks, this area is also well known for its pineapples -  
hence the establishment of the Plant Nutrition Research Unit in the  
Department of Plant Sciences. This unit has made studies of the  
effects of nutrients and hormones on the growth of pineapple plants and



the problems associated with detinning in pineapple cans. Leaf, soil and water analyses are done as a service to pineapple farmers.

Some of our academic, teaching departments are also involved in work that is of interest to the farmer. In the Department of Microbiology, Professor Newman, with his research team, has been working towards the production of a vaccine for the bluetongue virus and several members of the Department of Zoology and Entomology have been working on the biological control of exotic plants which have become pests in this country.

As computers become more and more important, members of the staff in the Department of Computer Science at Rhodes have collaborated with researchers in producing programmes for the study of a wide variety of subjects - from leather research to business applications for dairy farmers, streamlining both research and record-keeping.

Even the Department of Chemistry and Biochemistry has something to offer the farmer - biochemistry students study brewing science. We all know that the sporting and agricultural life of South Africa would be all but impossible without beer.

Although some of the areas of research I have mentioned today may seem to have little to do with the subject of your symposium, I hope it is clear that most of these research fields benefit from interdisciplinary collaboration. We need one another - researchers, farmers, administrators and engineers.



I wish you well with your symposium today - both the speakers and those who listen, learn and ask questions. I hope that this will be the first of more such events that will bring you together at Rhodes University.

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D S HENERSON  
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October 15, 1986