



Letters to the Editor

New ways needed to deal with water offenders

Environmental awareness and water consciousness have significantly improved in South Africa and I express gratitude not only to government for their proactive stance in creating significant legislation (for instance NEMA, Air Quality Act, waste management and the recent advances in waste tyre management, National Water Act, etc.) – and also to a significant effort being made by *Water Wheel* to provide valuable information on progress in and development of water and its resources.

A recent editorial (January/February 2010) regarding the emphasis on dedicated courts being established, with skilled professional staff to hear water and environmental cases is the only solution to enhance the various legislation and to ensure that compliance is enforced, giving effect to the noble aspirations of government in preserving our environment and scarce water resources.

One suggestion would be to centralise the administration of the Court and to establish dedicated courts, sitting at intervals staffed by independent and part-time prosecutors and judicial officers with the respective Department conducting investigations. The process of disseminating cases can be via our traditional courts where a special register records the case numbers but the administrative allocation of cases for courts sitting in areas where the transgression occurs, will drastically limit the usual costs for establishing permanent courts.

Compliance and enforcement is lacking where there are transgressions

committed by businesses and the only way a new culture of awareness will be created is if government takes the issue of enforcement seriously.

Government should also consider rewarding businesses for proactive steps taken to alleviate environmental hazards and pollution, to encourage and impose corrective measures as a form of punishment rather than the imposition only of fines, for instance, compulsory rehabilitation (and mitigation, bio-remediation) with regular audits being submitted, establishing committees and workshops on an ongoing basis where points are allocated to businesses who attend and which points could be redeemed for certain benefits to that business, setting ambient air quality targets as goals to reduce emissions. The forms of sanction should be innovative rather than punitive in nature as the general forms of punishment in our courts defeat the purpose for which our environment legislation is designed for. Sustainable development is measured by our ecological footprint we leave behind.

It is unfortunate that many municipalities, especially those in smaller towns, are oblivious about the importance of our environment and water preservation and the way to remedy this situation is to ensure that properly qualified and skilled persons are employed to protect our important commodity rather than it being seen as a secondary interest.

Rashid Patel, Estcourt



Climate change – more questions than answers

My article "Climate change - there is no need for concern" was published in the January/February, 2004 edition of the *Water Wheel*. There was an immediate, coordinated response by some 17 scientists in the following issue. I was denied the opportunity to respond.

In essence, we were arguing at cross purposes. I maintained, and still maintain, that there is no statistically believable evidence that supports the claimed consequences of global warming in my fields of interest. These are claimed increases in floods and droughts; changes in regional rainfalls; threats to water supplies; and large-scale environmental damage. The other side argued that global warming itself would have a whole range of adverse environmental consequences. My frequent requests that we get around the table to resolve our differences were ignored. The confrontation grew and became unpleasant.

The four-month period November 2009 through to February 2010 witnessed the total collapse of the climate change issue on an international scale. It suffered irretrievably on two grounds. The most important was political. The 192 nations of the world failed to reach an agreement at Copenhagen last December. The objective was to develop a binding international agreement whereby all nations would substantially reduce their emissions of the so-called greenhouse gases, principally carbon dioxide.

The divisions between the nations on political/economic grounds make it unlikely that a meaningful agreement will be achieved on the reduction of these emissions in the foreseeable future. These undesirable emissions must inevitably continue to increase.

The failure on scientific grounds was equally dramatic. It was claimed that if global emissions were not reduced, global temperatures would continue to

rise, thereby threatening human habitation on this planet. Increasing global temperatures was the key assumption. Remove this assumption and the whole climate change issue must collapse.

Climategate

In November 2009 there was a leakage of earlier e-mail exchanges emanating from the UK University of East Anglia's climate research unit. This unit was the major source of information on global temperatures. The leakage was called Climategate.

The leaked e-mails showed that the principal institutions in both the UK and the USA manipulated the historical proxy temperature data from tree ring studies and other sources in order to demonstrate continued increase in global temperature.

They produced the now infamous 'hockey stick' global temperature graph that featured prominently in the 2001 assessment reports of the Intergovernmental Panel on Climate Change (IPCC). It showed a slow decline in global temperatures from about 1000 AD through to 1900 AD when it rose rapidly through to 2000 AD and beyond. It was claimed that this dramatic increase in temperatures was proof of human causality. The principal institution involved in this study has now acknowledged that during historical warm periods the global temperatures were higher than at present. Even more important it was also acknowledged that there has been no statistically significant increase in global temperatures since 1995.

Two important aspects associated with the Climategate Affair should be noted. The first is that the university is being held to account for the actions of its researchers. The second is that three national scientific institutions publically expressed their concern that the incident had broken honourable scientific traditions with far reaching

consequences for the reputation of science as a whole. They were the Royal Society of Chemistry, the Royal Statistical Society and the Institute of Physics.

There was more to come. During January and February, skeptical scientists uncovered fraudulent activities within the IPCC itself. Claims that the Himalayan glaciers would melt by the year 2035 were based on an earlier Russian report where the year was given as 2350 and not 2035. The source of the information that the glaciers were melting at an alarming rate was based on a telephone conversation reported in a scientific journal and not on refereed literature. This has been acknowledged by the IPCC.

Details in the IPCC reports quoting the percentage of the area of the Netherlands vulnerable to inundation by rising sea levels, were also grossly

exaggerated. After publication, the statements were corrected on the insistence of the Netherlands authorities. Another example of fraudulent tactics was the IPCC's dire prediction regarding the imminent depletion of the Amazon forests as a result of climate change. This was based on unverified reports by a freelance journalist. There were other examples in the IPCC reports. The IPCC has lost all credibility as a trustworthy scientific institution.

A final embarrassment was that at the time that these fraudulent activities were exposed, despite the claimed global warming virtually the whole of the Northern Hemisphere was experiencing one of the coldest winters on record. This contradiction did not escape the notice of the media and the public.

Verification

An essential component of all prediction models is that the outputs must be verified by subsequent observations. My "No need for concern" article was published six years ago. It has been verified on two grounds. First, there have been no climate-related extreme events in South Africa during this period. Second, there has been no statistically significant increase in global temperatures during this period. My views expressed six years ago have been fully vindicated.

The future

A great deal is at stake. Many millions of dollars have been spent on climate change research. National emissions reductions programs if implemented, will adversely affect national economies especially those of the developing nations.

Consequently, all scientists involved in this issue should study the Declaration on science and the use of scientific knowledge produced by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the International Council for Science (ICSU) in 1999. It is the complete disregard of these basic scientific requirements that is the direct cause of the present unsatisfactory situation.

Those who have an interest in the effects of climate variability from whatever cause, on South Africa's water resources, should study my 530+ page handbook *Analytical Methods for Water Resource Development and Management*. It is now in the hands of the Water Research Commission.

WJR Alexander, Professor Emeritus, Department of Civil Engineering, University of Pretoria



THE WATER TREATMENT SPECIALISTS

OUR EXPERIENCE FOR YOUR FUTURE



Degremont, a subsidiary of SUEZ Environnement, is the world specialist in water treatment plants and as such makes an important contribution towards sustainable development.

Degremont, South Africa can assist the client and propose various technologies depending on client requirements and site constraints. Its teams design, build and commission facilities for potable water production, desalination, wastewater treatment and sludge treatment. It can assist with the rebuilding and refurbishment of water treatment plants.

Area of expertise

- Drinking water treatment
- Desalination
- Waste water
- Reuse
- Biosolids treatment

Degremont's contacts :

Dumi Luthuli,	Deputy Managing Director,	dumi.luthuli@degremont.co.za
Mornay de Vos,	Business Development Manager,	mornay.de.vos@degremont.co.za
George van der Merwe,	Technical Manager,	george.van.der.merwe@degremont.co.za
Tel: +27 (0) 11 807 1983		Fax: +27 (0) 11 807 4118
www.degremont.edx.co.za		www.degremont.com

Services

- Design, Engineering studies
- Execution supervision
- Installation & Commissioning
- Plant operation
- Technical assessment
- Spare parts