



World Water Day

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Clean Water for a Healthy World

Africa's Water Quality

A Chemical Science Perspective

A report by the **Pan Africa Chemistry Network**
March 2010





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Africa's Water Quality: A Chemical Science Perspective is a unique report summarising the conclusions and recommendations emerging from the Pan Africa Chemistry Network Sustainable Water Conference 2009. It represents the opinions and knowledge from some of Africa's best scientists and practitioners, from 14 countries in Africa, in the field of sustainable water research and development.

The recommendations presented in the report specify 'fit for purpose' solutions for water wherever it is used: for drinking, for growing food, and to satisfy domestic and industrial needs.

The chemical sciences will be crucial, in particular through centres for analytical chemistry for the evaluation and monitoring of water quality.

The vital role that Africa's scientists must play in meeting water quality challenges cannot be overestimated. These challenges present the opportunity for genuine partnership and collaborations between scientific communities and governments, both across the African states and internationally.

The ultimate goal of the report is to raise the profile of water quality in policy agenda, so that water quality is always considered alongside water quantity. To access a full version of the report, visit the Royal Society of Chemistry website.

www.rsc.org/AfricasWaterQuality

Key messages and recommendations from the report

1. Scientists working within Africa have the knowledge, expertise and potential to help formulate and implement sustainable water strategies.

African scientists need to be given a platform to work more closely with African Governments to ensure that a culture of science-based water management is established.

2. Increasing Africa's capacity in analytical chemistry is imperative in order to support chemical monitoring and water management activities.

The creation of 'Centres of Excellence' will be essential to achieve a critical mass of scientifically qualified and technically trained personnel. These centres should also facilitate scientific networking activities both intra-Africa and internationally.

3. Improving water quality is a vital requirement for better public health, productivity and economic prosperity.

This must be addressed through innovative water management and water treatment technologies that are appropriate for local needs, coupled with adequate monitoring systems.

4. Food production accounts for a large proportion of total water use.

The conversion rates of water to food in Africa are amongst the lowest in the world. Efficiency of water use as well as land productivity must be improved whilst maintaining a sufficient source of good quality water for other purposes.

5. Governments must be responsible and accountable for providing sustainable water strategies and a framework to provide clean drinking water, sanitation services, and food.

Water data should be shared across jurisdictions and new institutions, regulatory bodies and organisations should be established where appropriate to ensure efficient water management.

About the Pan Africa Chemistry Network

The Pan Africa Chemistry Network (PACN) was set up by the Royal Society of Chemistry in the UK, with a special focus on the Millennium Development Goals. With support from Syngenta, the network aims to advance the chemical sciences across Africa and represents an innovative approach to working with policy makers, scientists, universities, teachers and students.

The PACN is engaging with chemical societies through Africa, together with the Federation of African Chemical Societies, and has established regional hubs in Ethiopia and Kenya; these can respond to the local needs of scientists whilst building extensive relationships across the continent.

www.rsc.org/pacn