



PACN SUSTAINABLE WATER CONFERENCE

25th-28th August 2009

Overview

African countries are very dependent on rain fed agriculture. The rainfall pattern is altering due to climate change, deforestation, a high evaporation index and over exploitation of water resources. Three hundred and forty million people in Africa lack potable water, another 497 million people have no access to adequate sanitation. The *per capita* access to water is low (50m³) compared with Europe (350 m³) and the United States (6000 m³). The total renewable water resource of the continent is 5,400 billion m³ of which only 3.8% is developed for supply, irrigation and hydropower use. Most of the ground and surface water resources, for example Lakes Victoria and Chad; Rivers Nile, Niger, Omo, Zambezi and Limpopo, are trans-boundary and likely sources of conflict if not properly managed.

The sanitation standards are unacceptably low due to a lack of technology for water re-use, recycling and treatment. The Millennium Development Goals (MDG) target on sanitation will be missed by 700 million people. The situation in Sub-Saharan Africa, in particular, has only marginally improved; only 31% of the population currently has access to improved sanitation, *i.e.* only 5% more than in 1990. By contrast, considerable progress has been made in the area of drinking water: The number of people without access to clean drinking water has dropped below the one billion mark for the first time, although some countries in Sub-Saharan Africa and Oceania are still falling short of their targets. If the current trend continues, the MDG in this area will probably be achieved, and by 2015 more than 90% of the world's population will have access to clean drinking water.

Seventy per cent of industrial waste water in developing countries is not treated before being discharged into the environment due to unsatisfactory waste water disposal. In the case of municipal waste water that figure is 90%. Each year more than 200 million tonnes of human waste are discharged into the environment without treatment, thus causing pollution to water resources and people's living environment.

Dirty water is a major obstacle to health and economic development. Nearly 90% of all diarrheal illness in developing countries is attributable to dirty water and a lack of basic sanitation and hygiene. Half of all patients occupying hospital beds suffer from waterborne illness. Around 5,000 children under the age of five die every day from the consequences of dirty water - *many more than the number of children who die of AIDS*. Sanitation alone can more than halve child mortality. Water supply and sanitation are therefore the best forms of preventive medicine and a fundamental vehicle for economic growth.

Water quality is therefore inadequate and below the World Health Organization standards. Many African countries have no established water quality monitoring programmes. Above all, the rural and peri-urban water supply quality is not considered as an essential part of most water treatment systems. Due to these shortcomings there is a knowledge gap with respect to water data. Most of the rivers and water courses are non-gauged. Water pollution statistics are limited old technologies are used and water laboratories are scarce. Hence there is a need for robust and low cost technologies to

measure key water quality parameters. There has been a lack of focus on water as a critical resource and this requires urgent and substantial investment. Above all, the absence of a structured framework for water governance is hindering effective water management.

Challenges

African countries face several water challenges that require solution at the national, regional and global levels, not least because the water quality is in constant decline. In addition, the water demand for agricultural use is increasing rapidly due to food security issues, the introduction of biofuels requires diversion of water resources to produce energy crops, most hydropower projects have resulted in the damming of rivers, with subsequent reduction of river flows, and there is a programme of accelerated destruction of water towers.

Women and girls are particularly challenged by the lack of adequate water supply and sanitation. The lack of access to clean drinking water at home and in the immediate vicinity considerably restricts their educational and developmental opportunities, because in 64% of the affected households it is the female population that is responsible for fetching water from sources, some of which are a long way from home. In rural regions of Africa, women and young girls spend an average of three hours a day engaged in the unproductive activity of collecting sufficient water for a family of six, to say nothing of the physical burden to which they are thereby exposed. However the lack of sanitation is also especially problematical for women as there are other associated challenges, for example the risk of falling victim to sexual violence. In addition, the educational opportunities for girls are clearly limited on account of the lack of toilets in schools.

Objectives and Challenges for the PACN Sustainable Water Conference

At the 2000 Millennium Summit, the heads of state and government agreed within the framework of MDG 7 (Ensure Environmental Sustainability) to reduce by half the proportion of people *"without sustainable access to safe drinking water"* by 2015. Two years later, at the World Summit on Sustainable Development in Johannesburg, they added the goal of reducing by half the proportion of people living without access to improved sanitation by 2015 compared with 1990 levels.

The United Nations Development Programme estimates that in Sub-Saharan Africa loss of working hours and expenditure on health issues caused by insufficient water supply and sanitation due to unhygienic housing and living conditions, cost Sub-Saharan African states 5% of their economic performance annually - that is more funds than the region received in development aid and debt relief in 2003. Investing in sanitation is extremely worthwhile; according to the Human Development Report 2006, every Euro spent in the sector generates 9 Euros on average in economic profit. UN Water claims that a heavy burden is being placed on freshwater supplies, which are dwindling as a result of rising consumption and climate change.

The PACN Sustainable Water Conference is aware of the resolutions of the Millennium Development Goals, the Commission for Sustainable Development and the World Water Forum and will explore ways and mechanisms for improving Africa's water situation. It is important to note that, at present, a segmented approach to African water issues is not

yielding positive results. The following UN Organizations have some activities related to water: African Ministerial Committee for Water of UNEP, the World Bank, the UN Economic Commission for Africa, Africa Development Bank, UN Children's Fund, WHO, UN Educational, Scientific and Cultural Organization and World Meteorological Organization. There is no central coordinating body handling water in the continent. Therefore, we urge the scientists and policy makers attending the PACN Sustainable Water Conference to consider the way forward to solve the continent's water issues. We encourage participants to extend the "water wisdom" concept by submitting papers for discussion on any of the following areas: sustainable water management and training, technological development that enhances water quality and quantity, water policy, legal and institutional and financing of water resources and the effects of climate change on water quality and availability.

PACN Sustainable Water Conference Scientific Committee

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