

CONFERENCE ON ACHIEVING WATER SECURITY AND MITIGATION OF HYDROLOGICAL EXTREMES IN AFRICA FOR SUSTAINABLE DEVELOPMENT

Introduction

The International Conference on *Water Security and Hydrological Extremes: Towards Sustainable Development in Africa* convened under the auspices of UNESCO and the Federal Ministry of Water Resources of Nigeria, from 27th – 28th February, 2006, in Abuja, Nigeria. This important event brought together water experts associated with UNESCO water programmes to address common water issues in Sub-Saharan Africa (SSA).

The Conference brought to the fore the fact that the concept of water security is crucial to realizing the eight Millennium Development Goals in Africa (MDGs)

With this recognition, Water has been placed in the forefront of the regional agenda of development programmes in Africa. Water security in Africa is therefore central to sustainable development, poverty reduction, education and health.

Context

Africa suffers from one of the most unpredictable rainfall counts worldwide, causing severe aridity in areas such as the Sahara and Kalahari and extremely humid and tropical conditions in areas such as the Congo Basin. The high temporal and spatial rainfall variability has also repeatedly led to extreme climatic situations such as drought and flooding that pose a continuous risk to Africa's people and their livelihood as well as its national economies. According to the Intergovernmental Panel on Climate Change (IPCC), global change scenarios predict continuing global warming for this century – between 1 to 6°C and a rise in sea level between 0.1 and 0.9 m – and an increasing frequency of climatic extremes that may further aggravate the state of available freshwater resources.

Furthermore, the fundamental issues facing water resources in Africa does not appear to be one of water availability alone but also of water access and treatment - of both drinking water and wastewater. Water access is influenced by the governance of the available resources, legal and institutional frameworks, over-exploitation and pollution of the resources, conflict and political instability, inadequate technical know-how and institutional capability. There is also the problem of the low priority given to water and sanitation in terms of securing financial resources. Other important issues are the high rates of population growth and urbanization. Consequently, access to adequate freshwater resources in Africa is projected to worsen considerably in the future. 25 African countries are expected to experience water scarcity or water stress over the next 20–30 years. This will exacerbate the current situation facing Africa having the lowest water supply and sanitation coverage in the world.

There is therefore urgent need for greater focus on the above water-related issues, in order to achieve internationally agreed upon water-related goals as contained in Agenda 21, the MDGs and the World Summit on Sustainable Development (WSSD) in most of the sub-Saharan African countries.

Recommendations

In view of the above problem statement, the conference makes the following recommendations:

- A clearer articulation of African plans and actions within the UNESCO-IHP in order to contribute towards achieving the United Nations MDG targets for water in Africa, through partnership with the Development Partners.
- Develop capacity and adequate tools to achieve water security and mitigation of hydrological extremes
- Development assistance should be provided to enable Africa to acquire capacity for the sustainable management of water resources in response to climate change and variability impacts.
- African member states should exchange information on water resources management and strive to harmonize both equipment and techniques of data gathering.
- Common databases should be established or improved for riparian countries within shared water basins.
- Establishment or strengthening of existing National Water Institutes and Regional and sub-regional UNESCO Water Centres as training hubs for sub-Saharan Africa.
- The understanding of surface-groundwater interaction issues and their protection should be accorded greater attention; UNESCO IHP and Global Environmental Facility (GEF) could provide valuable support in tackling these issues.
- Measures be put in place for the management of the Transboundary Aquifers systems in sub-Saharan Africa through the present efforts under the canopies of GEF to undertake Transboundary Diagnostic Analysis (TDA) as well as the Hydrological Risk Analysis of various regional aquifers are recognized and acknowledged.
- Sub-regional inventories of the aquifer systems should be prepared under the umbrella of the UNESCO IHP project on transboundary aquifer systems (ISARM) in order to facilitate cooperation between countries sharing the same resources.
- Support is required to establish surface and groundwater monitoring networks and protection measures in sub-Saharan African countries particularly in the most vulnerable watersheds and aquifers.
- Development assistance should also support the utilization of new technologies (e.g. remote sensing) to enhance water resources assessment and management. The joint UNESCO-ESA TIGER project could be a vehicle to enhance these capacities.

- Mainstreaming of concerns and participation of women and youths in all water related and activities.

There should be the commitment and concerted efforts of different African countries to implement the above recommendations and encourage networking synergy between the public and private sector, Non Governmental Organization's and other stakeholders and promotion of efficient private sector led participation which should include adoption of preventive precautionary measures against environmental disasters resulting from hydrological extreme events.

The delegates and participants at the Conference expressed their gratitude to the government of the Federal Republic of Nigeria and UNESCO-IHP for sponsoring and facilitating the conference and Consultative meeting.