

Experts urge govts to reduce unsustainable water management, others

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Water management and climate change experts have called on governments at national and state levels in the country to gear up efforts to reduce unsustainable water management and improve the efficiency of agricultural water use in the country.

Besides, they stressed that innovative and strategic investment, research and development together with international cooperation should be promoted to improve agricultural water management by means of participatory irrigation management, water harvesting, water-saving/drought-resistant crop varieties, water storage and dissemination of agricultural best practices.

In a communique issued at the end of a one-day dialogue on water and climate change in Lagos organised by the Bread of Life Development Foundation in collaboration with the Water and Sanitation Media Network and signed by Mr. Babatope Babalobi, executive director, Bread of Life Development Foundation and Mr. Michael Simire, Lagos State Coordinator of Water and Sanitation Media Network, participant resolved that there is a need to thoroughly investigate groundwater-stream flow interactions in Nigeria.

This, they added, could be done through the Integrated Water Resources Management (IWRM) as a veritable tool for adaptation to climate change impacts on water resources in the country.

The communique reads in part: "Water conservation should be promoted throughout Nigeria with people's participation, groundwater recharge/monitoring mechanisms should be set up by water service providers and policy formulators in the water sector. Water efficiency plans should be promoted particularly in rural communities, inter basin water transfer and hydraulics structure provision should be encouraged.

"The Aquifer load should be reduced using surface water with simple purification systems like slow sand filtration, efficient water management and drinking water saving devices should be promoted. Water utilities should take measures to reduce water theft and leakages."

It added that the Federal and State Ministries of Water Resources in Nigeria should ensure that water resources issues are adequately addressed in climate change analysis and climate policy formulations. Likewise, climate change problems should be adequately dealt with in water resources analysis, management and policy formulation in the state.

The communique also said that water supply and sanitation policies should be updated to address climate change adaptation measures, reuse and recycling should be promoted including better utilization of grey water, construction of dry toilet/ecosanitation model systems should be promoted by rural water supply and sanitation agencies to reduce water use.

It says: "Water utility bodies should incorporate information about current climate variability into water-related management. Industries in the Nigeria are encouraged to change industrial process changes to reduce water intensity. The Water and Sanitation Dialogue therefore should hold monthly as a platform to discuss and proffer solutions to problems facing Nigeria's water supply and sanitation sector."

The dialogue that drew participants from civil society organisations, community groups, environmental journalists and the academia, noted that the changing climate is likely to exacerbate water management problems in Nigeria through its impact on rising sea levels in coastal regions, variable rainfall and extreme events like floods and drought, particularly in northern Nigeria.

Besides that, the consequences of climate change are a major challenge to the management of water resources and barriers to the transition from poverty to prosperity of Nigerians.

It warns that Nigeria is likely to experience an increase in global warming from 1.4 oc to 5.8 oc over the period 1990 to 2100, and that climate change will affect urban and rural water through unpredictable rainfall leading to inadequate recharge of aquifers and surface water, quality and quantity of water sources to be impaired, over exploitation of aquifers – no regulation, agriculture taking precedence over domestic use of water and fresh inland water likely to be affected by salt intrusion from the sea.

It says: "Drought arising from climate change is likely to have adverse consequences for the hydrological cycle and water resources in Nigeria. Other consequences of drought in Northern Nigeria are a decrease of water table flows in the alluvial aquifers resulting in a decrease of base flows; a decrease of the non-dissolved solid transportation capacity due to the severe low flows; and a reduction of the capacity of rivers in sediment transport while air, mechanical and hydraulic erosion has been accentuated.

"There is an increased river siltation in Nigeria, and the monthly rainfall data show that the dry period is being characterised by a decrease in the number of rainy events, while the mean storm rainfall varies little. Rainfall variability in Nigeria is likely to have a drastic effect on river discharges. A deficit of 20 to 30 per cent in rainfall results in a water shortage or deficit of 40 to 60 per cent.

"Stream flow modification in Nigeria has been resulting in water quality changes due to reduced dilution capacity; reduced extent and health of wetlands areas; reduced groundwater recharge and reduced aquifer capacity; and water scarcity as a result of diminishing precipitation, reduction in river flows, falling water tables, and an increase in the amount of evapotranspiration.

"Climate change is also expected to have the following impacts on Nigeria's water sector- increases in sea surface temperature and mean global sea level, changes in salinity, wave conditions, and ocean circulation; disruption of marine ecosystems dynamics, with significant impacts on fish-dependent human societies; and increased levels of flooding, accelerated erosion, loss of wetlands and mangroves, and seawater intrusion into freshwater sources.

"In the coastal regions of Nigeria, the receding shoreline coupled with the 30 to 60 km tidal excursion length around the Niger Delta suggests increasing salinisation of upland ground water. In the forest zone of southern Nigeria, projections indicate an increase in rainfall during the rainy season months, and a decrease during the dry season months, especially December-February, as well as probability of the dry season becoming drier while the rainy season becomes wetter."

* Three papers were presented: Babatope Babalobi Executive Director of the Bread of Life Development Foundation spoke on the 'Imperatives of mainstreaming water issues into Climate Change Discussions'; Professor Lekan Oyebande, Chair of the Technical Committee, West African Water Partnership, spoke on the 'Likely Impacts Of Climate Variability and Change on Water Resources and their Availability in Nigeria', while Engineer R.A. Ayeni, Deputy Director, Rural Water Supply Department of the Lagos State Ministry of Rural Development delivered a paper on 'Water and Climate Change: Lagos State as a case study'.

The dialogue on water and climate change is aimed at highlighting water resources management issues in the context of climate change, thereby empowering Nigeria's water resources stakeholders to engage in National and International negotiations, to ensure that water is placed on the climate agenda.