

WATER RESOURCES

Journal of The Nigerian Association of Hydrogeologists





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COMMUNIQUE OF THE 34TH ANNUAL CONFERENCE OF THE NIGERIAN ASSOCIATION OF HYDROGEOLOGISTS (NAH) AN AFFILIATE OF INTERNATIONAL ASSOCIATION OF HYDROGEOLOGISTS (IAH) AND A SPECIALIST GROUP OF THE NIGERIAN MINING AND GEOSCIENCES SOCIETY (NMGS) HELD AT CEDARS SHOPPING AND RECREATION CENTRE DAMATURU, YOBE STATE, NIGERIA

The 34THAnnual conference and workshop of the Nigerian Association of Hydrogeologists was held at Damaturu, Yobe State, Nigeria from 5TH to 10th November 2023. A total of two hundred and fifty (250) Participants from within and outside Nigeria attended the conference. The Federal and State Ministries of Water Resources, Environment and Agriculture and associated Ministry, Departments and Agencies (MDAs), Academia, Captains of water industry, Non-Governmental Organisations (NGOs), the Private Sector and the General Public were in attendance.

The theme of the conference was 'Sustainable Groundwater Resources Management' with the following sub themes:

- 1. Overview of Groundwater Resources and Challenges
- 2. Arid and Semi-Arid Groundwater Dynamic and Climatic Resilience
- 3. Water Governance and Regulatory Framework for sustainability
- 4. Groundwater Quality Monitoring and Surveillance

The Conference was declared open by His Excellency, the Executive Governor of Yobe State, Hon. Mai Mala Buni CON, COMN.

A total of thirty-five (35) technical papers were presented at the conference. A pre-conference panel discussion and brainstorming session on the theme and sub themes was held on the 6th of November 2023 and the following observations were made after exhaustive deliberations:

- 1. Arid and semi-arid regions are characterised by limited water resources with high rates of evaporation presenting unique challenges for groundwater availability, poor recharge, and quality degradation;
- 2. Environmental factors influencing groundwater characteristics are geology, soil characteristics, climate change, land cover, vegetation, land use and human activities;
- 3. Factors influencing groundwater management include depletion of groundwater due to overexploitation, deterioration of quality, and natural disasters;
- 4. Inadequate integrated data collection, knowledge dissemination, synergy and collaboration with programs, academic/research institutions, and development partner agencies, with specialized knowledge;
- 5. The relationship of water governance to political, social, economic, and administrative systems was also identified; and
- 6. The generally weak enforcement of groundwater policies and regulations, especially in borehole drilling and the water resources sector in general.

Consequently, the following recommendations were made:

- 1. Water conservation and efficient utilisation strategies should be adopted as crucial measures for sustainable groundwater management;
- 2. The conference strongly recommends putting in place effective measures for long term adaptation to climate change and hydrologic variability which will protect, enhance groundwater recharge, and manage water overexploitation;
- 3. Rainwater harvesting through construction of artificial catchments, water reuse and recycling should be encouraged to reduce reliance on groundwater.
- 4. The conference recommended the implementation of Institutional and Legal Regulatory Framework with strong political will and holistic management of the country's water resources.
- 5. The conference strongly canvasses piloting a new approach of end-to-end service delivery in conjunction with States Water Boards, with a policy that would go beyond water abstraction and incorporate components of monitoring in the project execution and delivery; and
- 6. Continuous education of relevant stakeholders on the consequences of not sustainable groundwater management practices across the water sector.

The Association wishes to express her immense gratitude and appreciation to the Honourable Minister of Water Resources, Engr. Prof. Joseph Terlumun Utsev, FNSE, FNICE, FNIWE, FICEN FILA.; His Excellencies the Governors of Yobe and Borno States Hon. Mai Mala Buni CON, COMN and Prof. Babagana Umara Zulum CON, MNI, FNSE respectively, and the good people of Yobe and Borno States for their uncommon African Hospitality and support during the Conference.

Signed and Dated

3 4

Dr Martin O. Eduvie FNAH, FNMGS, FIAH President Nigerian Association of Hydrogeologists



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NIGERIAN ASSOCIATION OF HYDROGEOLOGISTS

The Association is a specialized body of the Nigerian Mining and Geosciences Society (NMGS). The Association is subject to those Articles statuses and by laws of the society that apply to the association and to the society. It is an affiliate to the International Association of Hydrogeologists (IAH).

Objectives and functions of the Association:

- 1 To provide a forum for the meeting of professionals in hydrogeology and allied disciplines.
- 2 To prescribe qualifications required for the practice of the profession of hydrogeology.
- **3** To standardize qualifications required for the practice of the profession.
- 4 To encourage the collection of data, research, and dissemination of information on water resources
- 5 To advice the government and their agencies as well as the public on the need to control the investigation and development of our water resources.
- 6 To harmonize funds and support from the government and other bodies in their involvement in programmes to enhance the practice of hydrogeology.
- **7** To cooperate with other allied professional bodies connected with the water resources development.
- 8 To nominate any member or members as arbitrators or investigators on water resources problems when called upon to do so.
- 9 To establish forum and facilities for:
 - a Annual conference and general meetings of the Association
 - **b** Holding of symposia, seminars, and workshops on water resources problems from time to time.
 - **C** Publishing proceedings of annual conferences, symposia, seminars, workshops, and hydrogeological papers.
 - d Registering professional Hydrogeologists.
 - **e** Advertising of curricular development on the training of hydrogeologists in higher institutions in the country.
 - **f** Any other functions to promote the profession of hydrogeology.

Membership

Membership to the association is open to all practicing Hydrogeologists and allied disciplines. Institutional membership is open to all water resources departments, companies, institutions, research bodies and others.

Information about the Association can be obtained from the Secretary, Dr. Aisha A. Kana, Department of Geology and Mining, Nasarawa State University Keffi, Nigeria

Grand Patron Hon. Minister,

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Book

Draper N.R, Smith H (1981) Applied regression analysis, 2nd edn. Wiley New York.

Journal article

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Dissertation of thesis

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Article or chapter in a book

Zimmerman U, Munnich K.O, Roether W (1967). Downward movement of soil moisture traced by means of hydrogen isotopes. In Gleen ES (ed) Isotope techniques in the hydrologic cycle. Am geophys Union, Geophys Monograph 11:28-36.

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