



NIGERIAN NATIONAL COMMITTEE FOR INTERNATIONAL HYDROLOGICAL PROGRAMME

**Department of Hydrology/Hydrogeology,
Federal Ministry of Water Resources, P.M.B. 159, Garki, Abuja, NIGERIA .
234-9-2342520
234-9-2343714 (Fax)
E-mail: ihpncng@yahoo.com**

REPORT OF THE COOPERATIVE ACTIVITIES OF THE NIGERIAN NATIONAL COMMITTEE FOR UNESCO-IHP IN THE FRAMEWORK OF THE PROGRAMME FOR THE PERIOD 2004 – 2006.¹

Introduction

Since the IHP depends strongly on national efforts we have in place a Nigerian National Committee for UNESCO- IHP (NNC-IHP), with the Department of Hydrology and Hydrogeology of the Nigeria's Federal Ministry of Water Resources providing the Secretariat.

The National Committee was inaugurated since 1988 and was constituted to be representatives of the Hydrological Community in Nigeria, who are to actively participate in the implementation of the IHP Projects in Nigeria and is therefore a multidisciplinary body comprising professionals nominated to serve by the various Water departments/agencies along with renowned experts in the private sector of the Water industry.

Briefly the Committee among others has the following functions:

- Draw up Nigeria's programme of participation in the UNESCO-IHP
- Serve as Steering Committee for planning and promoting hydrological activities under IHP
- Promotion of training in Hydrology and Water Resources management
- Coordinates the fellowships programme of UNESCO
- Participates at regional and international meetings of UNESCO
- Organises workshop and symposium to promote hydrological awareness programme

The structure of the National Committee at the time of inauguration and till recently comprised of a 20-member representatives of the Federal Ministry of Water Resources, Meteorological Services Agency; National Inland Waterways Authority; National Commission for UNESCO; River Basin Development Authorities; States Water Boards; Universities/ Research Institutions, professional Associations of Hydrologists and Private Consultants in Water programmes.

2. Meetings of the Nigerian National Committee for IHP

The Nigerian National Committee for IHP was quite inactive in previous times, until this last biennial 2004 – 2006, during which period the Committee received tremendous financial support from its Secretariat's Ministry which has enabled it to hold and host its meetings, with the reactivation of the Committee.

¹ Report submitted on behalf of the Nigerian National Committee for UNESCO-IHP at the 17th Session of the Intergovernmental Council for IHP of UNESCO, Paris, France, July, 2006.

2.1. Meeting of the Nigerian National Committee for IHP, 10-12, May 2005, Abuja.

The meeting of the Nigerian National Committee for UNESCO-IHP was held at Sharon Ultimate Hotels, Abuja from 10th to 12th May 2005. The primary aim of the meeting was to rekindle the inactivity of the Committee and address matters, among others on the 32 C/5 Programme and Budget (2004-2005) of UNESCO; IHP-VI National Projects Implementation; Co-operation with UNESCO-IHP Secretariat, Paris; Preparation of Programme and Budget for 2006-2007 of UNESCO; Draft Concept Paper for the Seventh Phase of IHP (2008 - 2014); resuscitating the National Hydrology Symposium and the establishment of Technical Working Groups to carry out the Committee's work.

Election was conducted at the meeting and the three candidates were elected as follows:

- J.A. Hanidu - President
- Prof. H.I. Ezeigbo - 1st Vice Chairman
- Engr Nosa Ukonmwan - 2nd Vice Chairman

The Secretariat remains coordinated by:

- Engr. M.H. Ibrahim - Secretary
- Mr. Olufemi Odumosu - Assistant Secretary

A total of 15Nos. documents and papers were presented during the technical sessions at the meeting and there was reconstitution and constitution of sub-committees as well as ad-hoc committees to implement adopted programmes of the Nigerian National Committee for UNESCO-IHP as follows:

- ***Technical Sub-Committee*** is to serve as a ***Working Group on Nigerian Water Resources Assessment***.
- ***Communication and Information Sub-Committee***
- ***Working Group or Technical Sub-Committee on Joint Hydrology Symposium / Conference with the Nigerian Association of Hydrological Science (NAHS)***
- ***Ad-hoc Sub-Committee for the Fourth World Water Forum***
- ***An Ad-hoc Sub-Committee on UNESCO Education for Sustainable Development on Water Resources***
- ***Working Group on Data Collection/Water Resources Assessment***

In concluding the meeting, a number of recommendations were put forward towards sustaining and improvement of the activities of the Nigerian National Committee for UNESCO-IHP.

2.2. Meeting of the Nigerian National Committee for IHP, 15th – 17th November, 2005, Lokoja, Kogi State, Nigeria.

The meeting of the Nigerian National Committee for UNESCO-IHP was held at the Confluence Beach Hotel, Lokoja, Kogi State, from 15th – 17th November 2005. The main highlights of the meeting were as follows:

- Minutes of the last meeting of the Nigerian National Committee for UNESCO-IHP, 10th – 12th May, 2005, at Sharon Ultimate Hotels, Abuja.
- Brief on the 38th Session of IHP Bureau meeting.
- Report on the 33rd Session of UNESCO General Conference.
- Preparation of Programme and Budget for 2006- 2007 of UNESCO.
- Draft Paper for the Seventh Phase of IHP (2008-2014).
- Reports from Ad-hoc/Technical Sub-Committees established during the UNESCO-IHP meeting held in May 2005, in Abuja.

- Report on Nigeria’s hosting of the International Conference on **“Water Security and Hydrological Extremes: Towards Sustainable Development in Africa”** and the **“1st African Regional Consultative Meeting of the National Committees for UNESCO-IHP”** Abuja, Nigeria 27th February – 2nd March, 2006.

The Committee deliberated extensively on the recommendation of the National Water Resources Institute, Kaduna to be designated as UNESCO Centre for Water Resources and therefore recommended that for the Institute to become UNESCO regional Centre for water resources, it must reform and must be well funded adequately by the Federal Ministry of Water Resources.

In considering the report on Nigeria’s hosting of the International Conference on **“Water Security And Hydrological Extremes: Towards Sustainable Development in Africa**, and the **“1st African Regional Consultative Meeting of the National Committees for UNESCO-IHP”**, 27th February-2nd March, 2006, Abuja, as presented, the Committee is of the view that the Nigerian National Committee for IHP should be at the forefront of the organization of the Conference; and therefore set up a Technical Sub-Committee which examined and reviewed the entire Draft Document for the International Conference as prepared by the UNESCO-IHP Secretariat, Paris, France.

The reports from Ad-hoc/Technical Sub-committees established during the last meeting of the National Committee for UNESCO-IHP were also considered and reviewed.

2.3. Meeting of the Nigerian National Committee for IHP, 23rd – 25th February, 2006, Abuja, FCT, Nigeria.

The meeting of the Nigerian National Committee for UNESCO-IHP was held in Abuja at the Sharon Hotel from 24th – 25th February, 2006. This was an extraordinary meeting of the National Committee for UNESCO-IHP, the purpose of which was to enable the Committee in conjunction with the National Organising Committee for the International Scientific Conference and Regional Meeting assessed and review the preparatory programmes for Nigeria’s successful hosting of the International Conference on **“Water Security and Hydrological Extremes: Towards Sustainable Development in Africa”** and the **“1st African Regional Consultative Meeting of the National Committees for UNESCO-IHP”** Abuja, Nigeria 27th February – 2nd March, 2006.

The main highlights of the meeting were as follows:

- Minutes of the last meeting of the Nigerian National Committee for UNESCO-IHP, 15th-17th November 2005 at Confluence Beach hotel, Lokoja, Kogi State.
- Report on Nigeria’s hosting of the International Conference on **“Water Security and Hydrological Extremes: Towards Sustainable Development in Africa”** and the **“1st African Regional Consultative Meeting of the National Committees for UNESCO-IHP”**, 27th February-2nd March, 2006
- Final Draft Programme of the Conference and the Regional Meeting.
- Preparation of a draft Recommendation to the Conference
- Report of the National Committee for UNESCO-IHP for 2004-2006
- Draft Paper for Seventh Phase of IHP (IHP-VII, 2008-2013)
- Preparation for the National Hydrology Symposium being jointly organised with the Nigerian Association of Hydrological Sciences(NAHS)
- Update from the Ad-Hoc/Technical Sub-Committees of the NNC-IHP

Various reports on the level of preparedness to host the events were presented by the Secretariat. The reports gave a run-down of the local and international inputs towards hosting the events. The need to prepare a draft recommendation to the Conference stating Nigerian's stand on various issues was highlighted. The Secretariat stated that it has not prepared the Report of the National Committee for UNESCO-IHP for 2004-2006 as members were expected to make submissions/contributions for a more comprehensive report that the whole house would consider. The meeting adopted September 2007 as new date for the joint Symposium. The LOC was mandated to work out the exact date and programme of event.

The Working Group on Data Collection reported that a meeting was held with the Director of Hydrology and Water Resources of WMO during participation at the UNESCO General Conference in Paris in October 2005. It was reported that Consultants have been appointed for the two projects, namely Hydrological Data Rescue Project and the Nigerian National Hydrological Assessment Programme. No report was received from the other ad-hoc Committees owing to the absence of their Chairmen. The Communication and Information Committee informed the house of their inability to convene a meeting.

3. Restructuring of the composition of the Nigerian National Committee

The Nigerian National Committee for UNESCO-IHP has been restructured to include representatives from all the professional Departments of the Ministry including the representatives from each of the 12Nos. River Basin Development Authorities, and the National Water Resources Institute, as well as other Hydrological and Water Resources agencies nationwide including Universities and Private Consultants, in order to enhance Nigeria's beneficial participation in UNESCO's water programmes in collaboration with the Department of Hydrology/Hydrogeology, of the Ministry.

To this end, requests were made for invitation of resource/focal persons in Hydrology and Water resources programmes of the IHP from these bodies, who will be able to make meaningful contribution from their respective perspective to the UNESCO-IHP's three essential lines of action:

- Hydrological programmes
- Water Resources Management
- Water Education and Capacity Building

The representatives of the organizations will also contribute to the key role of sustainable water management efforts of the UNESCO-IHP in a follow-up to the World Summit on Sustainable Development (WSSD - Johannesburg, 2002) Plans of Implementation and the UN Millennium Development Goals (MDGs) as well as the relevance to our on-going Presidential Water Initiative, "*Water for People, Water for Life*".

This invitation was extended for nominations into the memberships of the Committee from the following:

- Fed Min of Water Resources – 5Nos. Technical Departments of Irrigation and Drainage; Water Supply; Planning, Research and Statistics; Dams & Reservoir Operations
- Nigerian Meteorological Agency
- National Inland Waterways Authority (NIWA)
- National Electric Power Authority (NEPA)
- Geological Survey of Nigeria Agency
- Federal Ministry of Environment.

- Federal Ministry of Science and Technology
- National Commission for UNESCO
- National Water Resources Institute, Kaduna.
- 12Nos. River Basin Development Authorities.
- 36Nos States Water Boards and FCT Water Board
- Nigerian Association of Hydrological Sciences
- Nigerian Association of Hydrogeologists
- 9Nos. Universities
- Private Consultants in Water Programmes

4. Status of IHP-VI activities

As earlier reported, the Nigerian National Committee for IHP had been quite inactive in recent times, and this had invariably affected our preparedness to participate and implement the relevant projects at the commencement of the IHP-VI activities.

However the Department of Hydrology and Hydrogeology of the Federal Ministry of Water Resources which provides the Secretariat of the Committee had continuously been involved in the implementation of the various national and regional IHP programmes as part of our various hydrological activities in the Ministry. Some of these projects therefore falls within the implementation of IHP-VI Activities, and therefore kept our role alive in the International Hydrological Programme.

5. Contribution to/participation in IHP-VII Plan.

We had twice acknowledged with respective contributions to the Consultation on the Planning process for the proposed content of the Seventh phase of IHP (2008-2014), which is of relevance to Nigeria's long-term priorities with regard to the UNESCO International Hydrological Programme. This includes:

- Water to remain the principal priority of UNESCO, so as to ensure further benefit of substantial and increasing budgetary reinforcement in years ahead, as a decline will greatly reverse the gains achieved in the IHP in the previous years, thereby ensuring that IHP in particular and UNESCO in general, will have a basis for continuing to serve Member States in the field of water sciences and sustainable development.
- UNESCO's responsibility in Water Education and Capacity Building should not be left alone in the hand of the UNESCO-IHE Institute of Water Education, but rather the UNESCO-IHP should continue to pursue Education and Training programmes as well as Capacity Building and furthermore foster future collaboration for research-oriented work in hydrology and water resources as was done in previous years as part of the IHP-VII activities.
- In a consideration of the future development of the World Water Assessment Programme (WWAP) and its World Water Development Report, we will urge UNESCO, as part of the action plans that could form part of the IHP-VII, to support the initiation of the National Water Assessment Programme at country level in its member-states, so as to provide the mechanism for each country to prepare a National Water Development Report as respective contribution to the WWAP and its series of World Water Development Reports.
- With regards to the proposed concept and structure of IHP-VII, we also stressed on the need to incorporate, in the overall framework for the IHP-VII, relevant aspects of the

International Decade on “Water for Life” 2005-2014, as part of UNESCO’s long term priorities in global water resources management.

- We have further suggested the proposals for the four major “Themes” of IHP VII as presented by the Task Force could be further enriched explicitly as follows:
 - Theme I: Impacts of Global Changes on Watersheds and Aquifers Management
 - Theme II: Governance and Socio-Economics for Sustainable Water Management Policies for Human Development
 - Theme III: Sustainable Water Resources and Environmental Management for water security
 - Theme IV: Water Quality, Human Health and Food Security

Nigeria had hosted the *1st African Regional Consultative Meeting of the National Committees for UNESCO-International Hydrological Programme* from March 1-2, 2006 in Abuja, and one of the items on the agenda was the review of the IHP-VII Plan. The meeting went into sub-regional groupings to further review the themes of the IHP-VII as relevant to their programmes

Nigeria was therefore part of the West Africa sub-regional group whose contributions to this meeting included:

- Full endorsement of the IHPVII Draft Plan.
- The sub-region indicates that groundwater resources related issues are priorities for the region.
- Theme 1 is a priority and within theme 1 the priority is given to Focal area 1.4: large-scale groundwater dependencies related to global changes and quality deterioration.
- Within Theme 2 the priority is given to Focal area 2.2. Good governance, capacity development and stakeholder participation.
- Within Theme3 the priority is given to Focal Area 3.5: Groundwater dependent ecosystems identification, inventory and assessment.
- Within Theme 4 the priority is given to Focal Area 4.2 :Access to safe surface water and groundwater for human health and for food security.

As the planning process for the Seventh phase of IHP is still continuous, the Nigerian National Committee for UNESCO-IHP at its February 2006 meeting also constituted a 6-man sub-committee to study the Draft Paper so as to forward further review of the Draft Concept paper and make recommendation based on appropriate comments from the members and resource persons to reflect the needs and priorities of Nigeria as a UNESCO member-state.

6. Meeting of Experts of the Nigerian National Commission for UNESCO on Nigeria’s participation in the 33rd General Conference of UNESCO (Document 33 C/5), 8th - 9th August, 2005, Abuja.

The Nigerian National Commission for UNESCO had hosted a meeting of Experts to consider the relevant documents towards Nigeria’s participation in the 33rd UNESCO General Conference, from 8th – 9th August, 2005, in Abuja.

We had participated at this meeting in the Sub-Committee that deliberated on Science and Technology programmes in a Panel of Experts which examined UNESCO Draft Programme and Budget for 2006-2007 (33C/5) in order to determine the extent to which Nigerian’s interest, and indeed Africa and developed countries, generally, have been taken into consideration with

respect to Nigeria's response to UNESCO Director-General's consultation document on the preparation of Doc. 33C/5.

The work of the Panel was on the Major Programme II, Natural Sciences. Since our own focus is on Water Resources, our presentation were made on the issue of **Managing Water Interactions: Systems at Risks and Social Challenges**, and after exhaustive discussion on this the panel, resolved based on recommendations made in the presentation that; The National Water Resource Institute Kaduna, Nigeria, be upgraded to sub- regional Water Centre. UNESCO to strengthen Regional cooperation of IHP National Committees in Africa, UNESCO to support capacity building in water education, UNESCO to explore compiling data bank of scientists in water resources in Africa. On this note, the panel recommended 2Nos. Draft Resolutions for adoption by the meeting, which is related to the Water Resources programmes.

7. Collaboration with other national and international organizations and/or programmes

The Department of Hydrology/Hydrogeology that has provided the Secretariat of the IHP National Committee, has always been in collaboration with other national and international organisation in the implementation of programmes in hydrology and water resources that is of mutual benefit and relevance. The Department along with the Nigerian Meteorological Agency has been in active collaboration in the implementation of various national and regional programmes of the World Meteorological Organisation (WMO).

The Department also collaborates with the International Atomic Energy Agency (IAEA) in the use of Isotope Hydrology Techniques in water resources assessment, along with a national agency, the Energy Commission of Nigeria.

The National Committee for IHP is also encouraging a scientific collaboration with the Nigerian Association of Hydrological Sciences in the joint hosting for resuscitating the National Hydrology Symposium.

8. Educational and Training programmes

The IHP National Committee as a result of being previously inactive was not able to make appropriate contribution to IHP courses or involved in the organization of specific courses.

However, we had participated in the UNESCO-IHP sponsored course in Groundwater Management in the Framework of Integrated Water Resources Management (IWRM) in May 2006, in Egypt and supported by the Italian Ministry for the Environment and Territory (IMET) within the framework of the UNESCO-IMET "Water Programme for Africa" (WPA)

9. Cooperation with the UNESCO-IHE Institute for Water Education and/or International regional water centres under the auspices of UNESCO.

At the inception of the establishment of the National Water Resources Institute (NWRI) in Kaduna, Nigeria, UNESCO had played a leading role in giving the desired support towards the curricula development and provision of teaching and educational materials. The NWRI runs a certificate course in Water Resources Engineering and professional Post Graduate course in Water Resources engineering.

The NWRI whose main responsibility is to train all categories of lower and middle cadre manpower that will execute and operate various water resources projects in Nigeria, and where possible in other African countries, should be encouraged to build on a collaborative cooperation and institutional networking with the UNESCO- IHE Institute for Water Education and other UNESCO associated centres in human capacity-building in the various aspects of integrated water resources management as well as in the preparation for the United Nations Decade on Education for Sustainable Development (2005- 2014).

10. Publications

We have published eighth editions of our electronic Newsletter, which is being released quarterly for circulation for the purpose of our mutual collaboration in the implementation of the national programmes of the IHP and to provide a wide forum for inputs and on line-consultation with the Secretariat of the Nigerian National Committee for UNESCO-IHP (NNC-IHP).

The first edition in the Newsletter series, which came out in 2004, was an introductory note on the IHP Programme and the National Committee and the subsequent editions highlighted the various events and programmes within the UNESCO-IHP's as relevant to Nigeria as at the time of publication.

We also use each edition of the Newsletter to provide access to the “*Water news, events and Links*” from UNESCO water portals, and the “*Currents*” from the World Water Assessment Programme and useful and relevant information to meet the scientific needs and programmes of our hydrological community in Nigeria.

The e-mail address of the Newsletter is ihpncng@yahoo.com, through which the Secretariat of the Nigerian National Committee for IHP also communicates.

11. Participation in International Scientific meetings

11.1. Nigeria's successful hosting of the International Conference on “Water Security and Hydrological Extremes: Towards Sustainable Development in Africa” and the “1st African Regional Consultative Meeting of the National Committees for UNESCO-International Hydrological Programme”, 27th February - 2nd March, 2006, in Abuja.

The International Conference on Water Security and Hydrological Extremes: Towards Sustainable Development in Africa and the 1st African Regional Consultative Meeting of the National Committees for UNESCO-International Hydrological Programme, were held from 27th February – 2nd March, 2006 in Abuja, Nigeria. These two events were convened under the auspices of UNESCO– International Hydrological Programme (IHP) Secretariat, Paris, France and the Nigeria's Federal Ministry of Water Resources. Thirty-two (32) African countries were represented at the two events: Algeria, Angola, Benin, Botswana, Burkina Faso, Congo-Brazzaville, Cote d'Ivoire, Democ.Rep.Congo, Ethiopia, Ghana, Guinea Equatorial, Kenya, Lesotho, Madagascar, Malawi, Mali, Niger, Nigeria, Senegal, South Africa, Sudan, Swaziland, Tanzania, Tchad, The Gambia, Togo, Tunisia, Uganda, Zambia and Zimbabwe

The President, Commander in-Chief of the Armed Forces of the Federal Republic of Nigeria, His Excellency, Chief Olusegun Obasanjo, *GCFR*, graciously attended and presented the Keynote Address and declared open the Scientific Conference and the African Regional Consultative Meeting.

The Conference and the Regional Consultative Meeting brought together African experts and stakeholders associated with UNESCO Water Programmes to mainly discuss and address the common water issues in Sub-Saharan Africa. There were over 300 participants that attended the International Conference, including experts, donors, non-governmental organisations, United Nations agencies and diplomatic delegates

The Scientific Conference was organized as parallel two-day sessions on 27th – 28th February, 2006. This was followed by a Panel meeting on 1st March, 2006, with the participation of AMCOW-NEPAD-IHP National Committees and Donors/ Development Partners for the purpose of identifying regional proposals and projects. The Regional Meeting of IHP National Committees in Africa commenced in the afternoon of same day, 1st March, 2006 till 2nd March 2006.

In concluding the Scientific Conference and Regional Meeting, the recommendations of the Conference on “Water Security and Hydrological Extremes: Towards Sustainable Development in Africa” and the “Declaration Statement of the IHP National Committees” were adopted. These recommendations of the Conference and the Statement were presented at the Fourth World Water Forum (4WWF), Mexico City, Mexico, March 2006, to intimate the global community on water issues that are of great concern to the African region. These include amongst others 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 AMCOW and the Development Partners.

It was also agreed that the Consultative meetings of the IHP National Committees in Africa will be organized every two years in order to ensure the sustainability of regional cooperation.

11.2. 16th Session of the Intergovernmental Council of the UNESCO-IHP, 20-25 September 2004, and the 7th UNESCO/IAHS Kovacs Colloquium on Scales in Hydrology and Water Management, 17 - 18 September, 2004, Paris, France.

The Sixteenth session of the Intergovernmental Council of the International Hydrological Programme (IHP) of UNESCO was held at the UNESCO Headquarters in Paris, France, 20th – 25th September 2004. The Council Session was preceded by the 7th UNESCO/IAHS Kovacs Colloquium on Scales in Hydrology and Water Management, 17-18 September, 2004.

Our delegation to the Council meeting was led by Engr. Bashr Ishola Awotorebo, Honourable Minister of State of Water Resources and included Engr. M. H. Ibrahim, Director of Hydrology/Hydrogeology, Dr. Abdulmumin, Director, National Water Resources Institute, Kaduna; Mr. Olufemi Odumosu, Deputy Director (Operational Hydrology); and Mr. Olurotimi Omodunbi, Personal Assistant to Honourable Minister of State. Engr. Aliyu M. Adnan, Director/Chief Executive, Hydraulic Equipment Development Institute, Kano along with Dr. Lijadu and Mr. Nwafor of the Permanent Delegation of Nigeria to UNESCO in Paris.

Mr. Ognjen Bonacci of Croatia was elected as Chairperson of the IHP Bureau while four Vice-Chairpersons were also elected: Mr. S. Demuth (Germany) for the Western Europe and North America-Region I; Mr. L.Heng (China) for Asia-Region IV; Mr. M.H.Ibrahim (Nigeria) representing the sub-Saharan African group-Region Va; Mr. E.A.E.Qunqar (Jordan) for the Arab and Middle East-Region Vb; Mr. Victor Pochat, the Outgoing Chairperson, for the Latin America Caribbean- Region III.

The Council adopted its provisional agenda presented by the Secretariat and deliberated on the items as presented in the adopted agenda and discussed the many aspects of the successful implementation of IHP's sixth phase, notably IHP's active involvement in internationally relevant events, the 2002 World Summit on Sustainable Development, the Third World Water Forum and the International Year of Freshwater 2003 and first World Water Development Report (WWDR) with World Water Assessment Programme, its incorporation of new initiatives such as the International Flood Initiative and the establishment of new water centres under the auspices of UNESCO and its establishment of professional posts (in India, Ghana and Kazakhstan). There was an acceptance for consideration of UNESCO's support for our National Water Resources Institute in Kaduna, Nigeria.

In the course of the deliberations of the above adopted agenda, our active participation at the 16th Session of the IHP Council, which was led at a high political level by Engr. Bashr Ishola Awotorebo, Honourable Minister of State of Water Resources was elaborated by his presentation of five major Ministerial Intervention at the Council, and a number of various comments as contributions to this meeting which had positively affected the outcome of the meeting. These Ministerial Interventions therefore facilitated Nigeria's visibility and respect in our lead role in speaking for and raising voice of the African group at this meeting, which otherwise would have been marginalized by the non-attendance and non-participation of the other African countries that are members of the IHP Council.

11.3. Nigeria's participation at the 38th session of the IHP Bureau, 6-8 June, 2005, Paris, France.

The 38th session of the Bureau of the Intergovernmental Council of the International Hydrological Programme (IHP) was held at UNESCO Headquarters in Paris from 6 to 8 June 2005. The entire six members of the IHP Bureau attended the meeting.

Nigeria's delegation to the Bureau meeting was led by Engr. M. H. Ibrahim, Director of Hydrology/Hydrogeology and includes Mr. Olufemi Odumosu, Deputy Director (Operational Hydrology).

Mr. Bonacci, Chairman of the Bureau, opened the meeting while Dr. A. Szöllösi-Nagy, Deputy Assistant Director-General for Natural Sciences and Secretary of IHP, presented the agenda, timetable as well as the background documentation for the meeting's ensuing deliberations.

It was noted that Africa would proceed to organize a regional technical and management conference of IHP National Committees in Nigeria, to be held before March 2006. The Bureau has encouraged the African National Committees to act as scientific advisory committees to the African Ministerial Council on Water (AMCOW) and therefore agreed as suggested by Nigeria that IHP and AMCOW sign a memorandum of understanding on the subject.

The Nigeria's delegation had drawn the attention of the Bureau members that no category II Centres existed in Sub-Saharan Africa, and in response to Nigeria's concern of African countries not being able to meet the financial requirements to upgrade to such UNESCO Water Centres, the Secretariat suggested that countries within that region might want to submit a request to the African Development Bank for financial assistance to upgrade. It was also proposed, following attention to the omission drawn by the Nigerian delegation, that the Niger River might later be additional case study for the International Sediment Initiative Project.

11.4. Participation of Nigeria's Water Resources Ministerial delegation at the 33rd Session of the UNESCO General Conference, 3rd – 21st October, 2005, Paris, France.

The 33rd session of the UNESCO General Conference, which takes place every two years, was held from 3rd – 21st October, 2005 at UNESCO Headquarters in Paris, France. The Conference brought together more than 2,000 participants, including a large number of Ministers and several Heads of State and Government from 191 of the Member States of UNESCO. The representatives of governmental and non-governmental organisations and representatives of UN organisations also participated.

The examination and adoption of the Programme and Budget for 2006-2007 and the preparation of the Draft Programme and Budget for 2008-2009 were the focus of the sessions of the Conference.

The Honourable Minister of Education, Mrs Chinwe Nora Obaji, led the Nigeria's delegation to the Thirty-Third session of the UNESCO General Conference. The Water Resources delegation to the Conference was led by the Honourable Minister of State for Water Resources, Engr. Bashr Ishola Awotorebo and included Engr. M. H. Ibrahim, Director (Hydrology & Hydrogeology), Mr. Olufemi O. Odumosu, Deputy Director (Operational Hydrology).

The Conference, was declared open by the president of the 32nd session of the General Conference, Prof. Michael Abiola Omolewa, Ambassador and Permanent Delegate of Nigeria to UNESCO, Paris. The plenary sessions thereafter commenced with the adoption of the agenda and a presentation of the Organisation of the work of the session. The 33rd UNESCO General Conference session coincided with UNESCO's 60th anniversary, which was marked by a special ceremony on 5 October, 2005, was dedicated to human dignity.

The Technical Commission III, in which the Water Resources delegation participated in, considered issues of Part II.A: Major Programme III (Social and Human Sciences), and Major Programme II (Natural Sciences) of the Draft Programme and Budget for 2006-2007 (33 C/5), as well as the Draft Programme and Budget for 2008-2009 (34 C/5), and the preparation of the Medium-Term Strategy for 2008-2013 (34 C/4) in the areas of Natural Sciences and Social and Human Sciences. The Honourable Minister of State for Water Resources, Engr. Bashr Ishola Awotorebo, presented Nigeria's Ministerial Interventions at the Technical Commission III's session while the Nigeria's Honourable Minister of Science and Technology of also gave a number of Ministerial interventions for Nigeria.

11.5. Participation of Nigeria's Water Resources Ministerial delegation at the Fourth World Water Forum, 16th - 22nd March, 2006, Mexico city, Mexico.

The Fourth World Water Forum was held at the Centro de Convenciones de Banamex in Mexico City from 16th – 22nd March 2006, under the overarching theme of "**Local Actions for a Global Challenge**". It focused on analysis of experiences and knowledge sharing and was attended by more than 13,000 participants and representatives from more than 120 nations. The representatives of governmental and non-governmental organisations and representatives of UN organisations also participated.

The Water Resources delegation to the Forum was led by the Permanent Secretary, Engr. E.O. Okeke and included

- Senator Tunde Ogbeha, Chairman, Senate Committee on Water Resources

- Hon. Baba Shehu Agaie, Member, House of Representative Committee on Water Resources
- Alhaji M.N. Gusau Hassan, Hon. Commissioner for Water Resources, Zamfara State
- Engr. M. N. Gundiri, Director (Dams & Reservoir Operations)
- Mr. Olufemi O. Odumosu, Deputy Director (Operational Hydrology)
- Engr. Tolu Fadahunsi, Managing Director, Ogun-Oshun River Basin Development Authority
- Dr. J. Sadeeq, Special Assistant to the HMWR and Executive Secretary of AMCOW
- Ms. Laide Sodeko, Assistant Director, Water Supply

The President of Mexico, Vicente Fox Quesada, declared the Forum opened calling for a new culture based on shared responsibility, equity and solidarity, in light of the water crisis that the world is experiencing, and called for international cooperation and coordination to face the vast global challenge of reaching agreements for the rational and fair use of the water resources.

The Thematic Component of the 4th World Water Forum was centered on five framework themes, which included some of the world's most important and challenging problems relating to water, as well as five cross-cutting perspectives representing some of the processes and factors affecting the development of local actions around the world.

The Regional Document on Africa, "***Water Resources Development in Africa: Challenges Response and Prospective***" which was presented indicated that the African continent has thus far developed only 3.8% of its water resources for supply, irrigation and electrical power. The three primary water challenges that the African continent faces are: water security, water governance, and the transboundary management of water, given that on this continent there are 80 rivers and 38 groundwater aquifers that are shared by various nations. It must therefore be emphasized that Africa's message to the world is infrastructure projects must be developed, the global partnership must be strengthened so that this continent might attain the Millennium Development Goals, the principles of Integrated Water Resource Management must be developed .

At a session organised by the UNESCO-IHP on 21st March on "***Groundwater and Risk Management: Coping with Climate Change, Water Scarcity and Emergency Situations***", Engr. E. O. Okeke, Permanent Secretary and Head of Nigerian Delegation to the 4th World Water Forum, along with the Koïchiro Matsuura, Director-General of UNESCO and the Jabu Sindane, Director-General, National Dept. of Water Affairs and Forestry of South Africa had given respective opening statements at this session.

The World Water Day 2006 celebrated on 22nd March of every year was marked as one of the events of the 4WWF and was dedicated to the topic of Water and Culture. Water is a source of culture and there is no civilization whose origins were not in water. Representatives of the 24 water-related UN agencies, including UNU, ESCAP, UNEP, WHO, FAO, UN-ISDR, UNDP, presented the second edition of the World Water Development Report, "***a shared responsibility***".

For the first time, a Nigerian, Mr. Michael Ale was elected into the Governing Board of the World Water Council as one of the Governors. He is also the youngest of all the Governors.

11.6. Nigeria's participation at the 39th session of the IHP Bureau, 3-5 May, 2006, Delft, Netherlands.

The 39th session of the Bureau of the Intergovernmental Council of the International Hydrological Programme (IHP) was held at the UNESCO-IHE Institute for Water Education in Delft, The Netherlands, from 3 to 5 May 2006.

All the six members of the IHP Bureau were represented by their respective delegations; including Nigeria at the meeting. Nigeria's delegation to the Bureau meeting was led by Engr. M. H. Ibrahim, Director of Hydrology/Hydrogeology and Secretary IHP National Committee, who is the Vice-Chairman representing the African group in the Bureau, and included Mr. Olufemi Odumosu, Deputy Director (Operational Hydrology) and Assistant Secretary, IHP National Committee.

The Bureau noted that "Water and associated ecosystems" remained a principal priority for the 2006-2007 biennium and the establishment of five new water-related category II centres and need to emphasize the close relationship between water and all the Millennium Development Goals (MDGs) and on the role of the UNESCO-IHE Institute for Water Education in relation to the International Hydrological Programme, and its delivery of post-graduate water education globally. The Bureau also adopted a proposal for the establishment of RICs.

It also acknowledged the progress made in developing the IHP-VII Draft Plan and endorsed its structure and recommended the preparation of an updated version of the draft plan to the 17th session of the Council in July 2006 for discussion and formal adoption. It also requested that the Task Force be complemented by experts from Africa at its 6-7 June 2006 meeting.

The document as submitted by the Nigerian delegation, on the Information Report of Nigeria's successful hosting of the International Conference on "***Water Security And Hydrological Extremes: Towards Sustainable Development In Africa***" and the "***1st African Regional Consultative Meeting of the National Committees for UNESCO - IHP***" held at Transcorp Hilton Hotel, Abuja, Nigeria, 27th February – 2nd March, 2006, was circulated to the meeting and the Bureau was requested to review this report, endorse the "***Recommendations of the Conference***" and the "***Declaration Statement of the IHP National Committees***" for its submission to the 17th Session of the IHP Intergovernmental Council.

The Bureau also reviewed the Progress Report on new IHP Initiatives, the International Sediment Initiative (ISI); International Flood Initiative (IFI); Ecohydrology Programme and the proposed thematic programme on water education within the UN Decade on Education for Sustainable Development (DESD, 2005-2014). On relations with United Nations and Non-Governmental Organizations, the Bureau noted the co-operation between IHP and the UN World Water Assessment Programme (WWAP) and the upcoming transfer of the WWAP Secretariat to Perugia, Italy and noted the many joint activities that WMO is conducting with UNESCO and between UNESCO and IAHS and the Report on IHP's participation in the 4th World Water Forum and the visibility and recognition of UNESCO's leading position within the UN system in the field of freshwater. The preparations for the 17th Session of the IHP Intergovernmental Council, Paris, 3-7 July 2006 was also reviewed by the Bureau and it decided to carry out the Council in the same format as the 16th session.

12. Ongoing Scientific Projects at Regional level

12.1. UNESCO-IHP sponsored Transboundary regional aquifer study for the management of the Iullemeden basin shared between Nigeria, Niger and Mali.

This is a project in which the Department is actively participating in the regional shared aquifer study for the management of the Iullemeden basin shared between Nigeria, Niger and Mali.

A regional workshop held in Niamey, Niger Republic from June 29th – July 1st, 2005 on the establishment of Tripartite Consultation mechanism for the Management of the Iullemeden Aquifer System (IAS).

A National workshop on Transboundary Diagnostic Analysis (TDA) and Consultation mechanism on the project: ““Managing Hydrogeological Risks in the Iullemeden Aquifer System (IAS)”” was held from 6th – 8th February, 2006 to discuss and rationalize issues on-

- Transboundary Diagnostic Analysis (TDA) and Consultation mechanism for the Iullemeden Aquifer System.
- Establishment of legal/Institutional framework for the management of the Iullemeden Aquifer System.

The 1st meeting of the Regional Steering Committee of the GEF/UNDP assisted project comprising Nigeria, Niger and Mali was also held in Nigeria from 25th – 26th February, 2006 with all the development partners in attendance.

Two members of the Project team also attended group training on Groundwater Modelling for the Management of the Water Resources of the Iullemeden Aquifer System (IAS) at the OSS (Observatory of the Sahel and the Saharan) headquarters in Tunis, Tunisia from April 17th – 29th, 2006.

Nigeria through the Federal Ministry of Water Resources has just concluded a field data verification exercise in the Nigerian segment of the Iullemeden Aquifer System (IAS) this June, 2006.

12.2. Regional UNESCO-IHP project for the Joint Management of Shared West African Coastal Aquifer Resources.

This is a Saline Water Intrusion Studies regional project which involves the countries of Benin, Nigeria, Ghana, Cote d’Ivoire and Togo. The goal of the project is to create a control mechanism for a sustainable management of West African coastal aquifers.

This phenomenon of saline (Salt) water intrusion is rampant in the Nigerian coastal areas, specifically in the Dahomey (Benin) and Niger Delta Basins. It occurs in recent sediments and aquifers in the Dahomey (Benin) Basin around Lagos metropolis. It also occurs in both confined and unconfined aquifers in the Niger Delta Basin.

Usually the phenomenon occurs mostly due to overdevelopment of coastal aquifers and in recent times due to either flooding of groundwater recharge areas by seawater, reclamation of seawater filled channels or saturation of evaporate deposits in the case of inland areas.

Since most of the urban and communities along the Nigerian coast covering an estimated area of 143,000 km² depend on groundwater for their water supplies it has become imperative to study the phenomenon and come up management measures to address the problem.

The objectives of the study is to map in three dimensional basis the extent of the saline water intrusion in the coastal areas to determine both the depth to the salt/fresh water interface and the areal boundaries of the zones (aquifers affected).

At the end of the studies output will include the design of groundwater level and water quality monitoring network and recommendations of measures to check the incidence of saline water intrusion, and ensure the provision of adequate water supplies for Nigerian communities where the incidence occurs.

A preliminary data collection for the project has been carried out for detailed geological, hydrogeological and geotechnical data as well available water quality data. A desktop and a laptop computer were procured for data management.

12.3. Application of Isotope Hydrology Techniques in contemporary water resources assessment, development and management in Nigeria, under the auspices of the International Atomic Energy Agency (IAEA) and the UNESCO-IHP as part of the establishment of the Joint International Isotopes in Hydrology Programme (JIHP) between UNESCO and IAEA

Application of Isotope Hydrology Techniques was first successfully used in Nigeria between 1997-2000, with the study of recharge, general flow pattern and determination of sources of pollution in the Wurno Irrigation Scheme in the Sokoto Hydrological basin.

Thereafter, the technique was employed in the study of the aquifer characteristics, recharge age determination and general aquifer disposition of the multilayered aquifer systems of the Chad basin in order to solve the problems of water demand in the basin.

The technique is presently being employed in the study of the sources of artesian flows in the Middle and parts of the Eastern Nigeria, as well as the study Hydrochemistry and Isotope Geochemistry of the Middle Benue Trough.

As a result of the success made in the implementation of the previous projects, the IAEA has procured (through the cost sharing agreement) and shipped a Mass Spectrometer (MS) to Nigeria for installation at the newly constructed Isotope Hydrology Laboratory at Center for Energy Research and Training (CERT) Ahmadu Bello University, Zaria, Nigeria. The availability of the MS will allow the study of other hydrogeological provinces in the country as well as earn revenue to the government from other West African countries through analysis of their samples.

13. Future Activities and Programmes of the IHP National Committee

It will be recalled that Nigeria hosted the International Conference on “*Water Security and Hydrological Extremes: Towards Sustainable Development in Africa*” and the “*1st African Regional Consultative Meeting of the National Committees for UNESCO-International Hydrological Programme*”, which was successfully held from 27th February - 2nd March, 2006, in Abuja and produced a “Conference Recommendations and a “Declaration Statement of the IHP National Committees” which were presented at the Fourth World Water Forum (4WWF), Mexico City, Mexico, March 2006, to intimate the global community on water issues that are of

great concern to the African region. These include amongst others 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 AMCOW and the Development Partners.

One of the aims of the International Scientific Conference and the 1st African Regional Consultative IHP Meeting is also to strengthen and create an enabling environment to rekindle the inactive African IHP National Committees, including that of Nigeria.

This will therefore enable us to facilitate our continuity and commitments in the implementation of UNESCO's water programmes by making preparations for effective participation at the forthcoming 17th Session of the IHP Intergovernmental Council, 3rd - 7th July, 2006 in Paris through a Ministerial delegation which is now being led by the Honourable Minister who is to vie for Nigeria's candidacy into the Presidency of the IHP Council, a position which we have been canvassing for support at different water Conferences and events in the last one year.

Nigeria will thereafter be able to obtain first hand information and contribute in influencing the course of the UNESCO-International Hydrology Programmes in the position of the Chairman of the IHP Bureau of the Intergovernmental Council, and will represent and lead not only the African group's interest but the global initiatives of the UNESCO's water programmes in the next 2-year intersessional period 2006- 2008.

The discussions that will emerge from the 17th Session of the IHP Intergovernmental Council, 3rd - 7th July, 2006, Paris and the arising Resolutions that will be adopted at the meeting which will be subject to a review by the Nigerian National Committee for IHP at its next meeting especially as related to the Draft Strategic Plan for the Seventh Phase of IHP (2008 - 2013) will obviously determine the Activities envisaged in the long term.

The National Secretariat,
Nigerian National Committee for UNESCO-IHP,
June 2006.