



# NEPAD Western African Water Centres of Excellence

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# Our Mandate

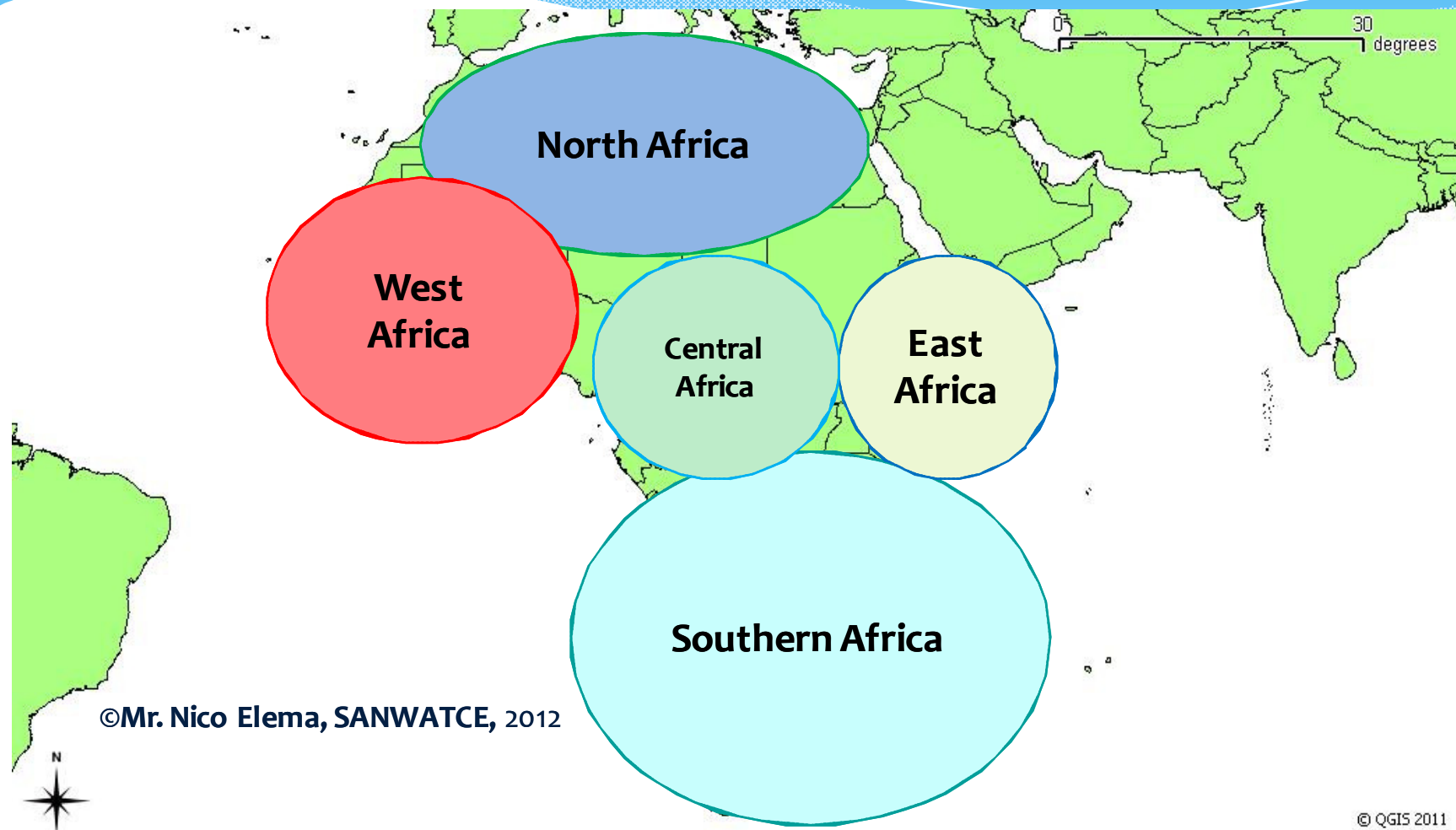
The African Ministry Council on Science and Technology (AMCOST) and - Water AMCOW has taken forward this initiative through the NEPAD Office of Science and Technology (OST) – Cairo Resolution, 2006)



NEPAD Planning and Coordinating Agency  
Agence de Planification et de Coordination du NEPAD

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# Five regions are defined by the African Union



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# Background to Networks of Centres of Excellence

- \* The New Partnership for Africa's Development (NEPAD) initiated the vision of identifying Centres of Excellence in science and technology on water for Africa's sustainable development towards new forms of regional and sub-regional networks.

# The objectives of the initiative are the following

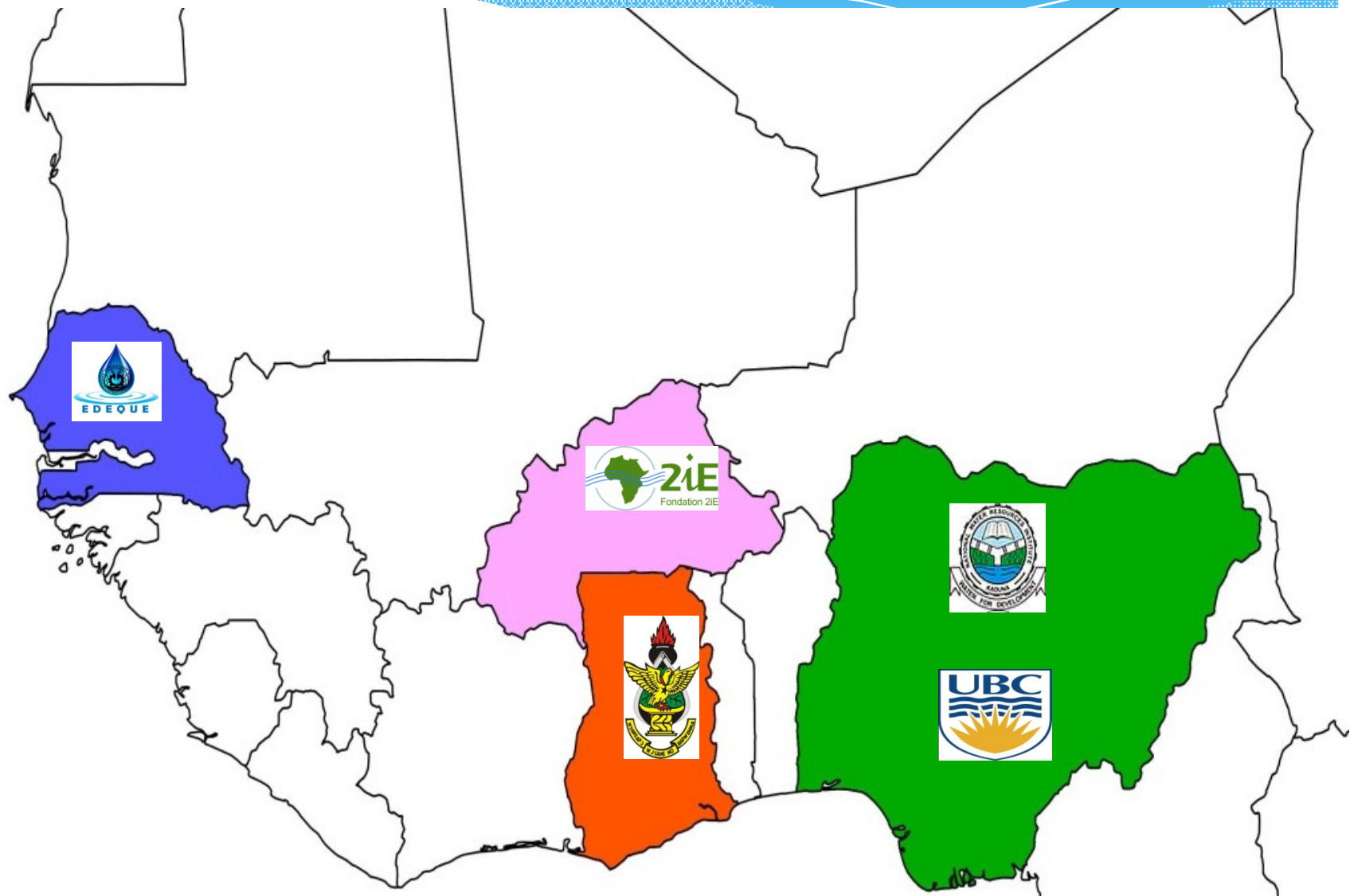
- \* Improve conservation and utilization of the continent's water resources;
- \* Improve the quality and the quantity of water available to rural and urban households;
- \* Strengthen national and regional capacities for water resources management and reduce impacts of water related disasters;
- \* Enlarge the range of technologies for water supply and improve access to affordable quality water.

# The Western African Centres of Excellence Network

## The Members are:

- \* University of Cheikh Anta Diop (Senegal)
- \* International Institute for Water and Environmental Engineering (Burkina)
- \* Université of Benin (Nigeria)
- \* National Water Resources Institute (Nigeria)
- \* Kwame Nkrumah University for Sciences and Technology (Ghana).

The coordinator is the Doctoral School on Water from University of Cheikh Anta Diop.



2nd GMES & Africa Workshop on Water Resource Management, 14 to 15 may 2013, Abuja/Nigeria

# EU Project

1. Design and implement a Join Learning Programme on the water sector in West Africa.
2. Carry out a Knowledge Management programme in the West African water sector through the regional network



# The Project planned activities

*JLP.1.1: Survey on requirements in higher education and within trainings for practitioners in the water sector*

*JLP.1.2: Study on how the Centres of Excellence could better address sector expertise for Consultancy and Advocacy needs for water sector development in the region*

*JLP.1.3: mechanisms for dialogue*

*JLP.1.4: planning*

*JLP.1.5: final design of the seminars and trainings*

*JLP.1.6: a) Organizing and b) Implementing training/seminars*

*JLP.1.7: proceedings and feedback from the trainings/seminar*

*JLP.1.8: Reports to AMCOW and ECOWAS*

**KM 2.1 Analysis of Aquaknow users and policy makers**

**KM 2.2. Information and dissemination materials**

**KM 2.3 Generating materials**

**KM 2.4 International Workshop**

# Country reports

1. Kwame Nkrumah University of Science and Technology (Janvier 2013) : Report on Ghana Water Sector Stakeholders' Capacity Analysis. FINAL REPORT ; Document prepared by Dr. S. Oduro-Kwarteng, KNUST Civil Engineering
2. University of Benin (January 2013). Report on the Water Sector Stakeholders Analysis. Task JLP 1.1 and JLP 1.2. Document prepared by: Dr J. O. Ehiorobo
3. National Water Resources Institute (NWRI) (January 2013). Report on Task JLP1.1 and JLP1.2
4. University of Cheikh Anta Diop, Dakar Doctorate School of Water and water Usages, , Senegal. (January 2013). Stakeholder and Human resources analysis in Sénégal. Document prepared by Prof. Alioune Kane and his team.
5. Western African Water Centres of Excellence. (February 11-15, 2013). A joint stakeholders analysis of the water sector in Western Africa. FINAL REPORT. ABUJA, NIGERIA

# Kwame Nkrumah University of Science and Technology



KNUST



JOINT RESEARCH  
CENTRE Institute for  
Environment and  
Sustainability



## **Western African Water Centres of Excellence**

Kwame Nkrumah University of Science and Technology

### **Report on Ghana Water Sector Stakeholders' Capacity Analysis FINAL REPORT**

Document prepared by:  
**Dr. S. Oduro-Kwarteng**  
KNUST Civil Engineering

Date: January 2013

# University of Benin



University of



## **Western African Water Centres of Excellence**

**University of Benin**

### **Report on the Water Sector Stakeholders Analysis Task JLP 1.1 and JLP 1.2**

**Document prepared by: Dr J. O. Ehiorobo**

**Date: January 2013**

# National Water Resources Institute



**NEPAD West African Water Centres of Excellence**

**Report on Task JLP1.1 and JLP1.2**

**National Water Resources Institute (NWRI)**

**January 2013**

2nd GMES & Africa Workshop on Water Resource Management, 14 to 15 may 2013, Abuja/Nigeria

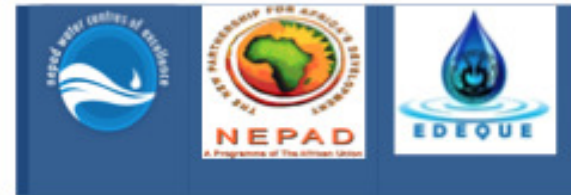
# University of Cheikh Anta Diop Dakar



EUROPEAN COMMISSION

JOINT RESEARCH CENTRE

Institute for Environment and Sustainability



NEPAD WESTERN AFRICAN WATER CENTRES OF EXCELLENCE

Program Office

## West African Water Centres of Excellence



Document prepared by:

Doctorate School of Water and water Usages, University of Cheikh Anta Diop, Dakar, Senegal

Prof. Alioune Kane and his team

Date: January 2013

# A joint stakeholders analysis of the water sector in Western Africa

This study was conducted based on the objectives set on the project document and agreed with all involved institutions partners. These are as follows:

- 1. To carry out a survey on requirements in higher education and within training for practitioners in the water sector.***
- 2. To carry out a study on how the centre of excellence would better address sector expertise consultancy and advocacy **needed** for the water sector development in the west **African** region.***



NEPAD Western African Water Centres of Excellence

A joint stakeholders analysis of the water sector in Western Africa

February 11-15, 2013 - ABUJA, NIGERIA

FINAL REPORT



In the pictures from the left: the coordinator of the Network, Prof. Kane, with the ECOWAS Water Commissioner; the participants at the Nigerian Ministry of Water Resources; the participants at the Guarara Dam.



# Main findings/Results

- ❖ Lack of enforceable legislation for water practitioners(Nigeria).
- ❖ Lack of awareness on the importance of hydrological data in the planning and management of the nation's water resources.
- ❖ Lack of adequately trained manpower in the sector
- ❖ No proper coordination in research and monitoring of water related activities in various institutions, both at the Federal, States and even non-governmental levels need to be addressed



# Main findings/results

❖ **Knowledge management: Formal** Knowledge management systems does not always exist in many of the existing water and sanitation organisations;

❖ **Mechanism of dialogue among water actors for water resources management is weak**

❖ **Collaboration among research centres**, academia and development partners (government and donors) for research and development in water resources management IS LIMITED

○ The National Learning Alliance Platform for WASH (water, sanitation and hygiene) could be extended to include water resources in Ghana

# Main findings

1. The findings revealed a deficiency of human capacity and skill gaps that are necessary to be filled to enhance service delivery within the Water Sector in Western Africa.
2. This was attributed to inadequate funding, stagnated recruitment and replacement of retiring officers in the water sector.
3. Skill gaps lie mainly in “software” subject areas such as sector governance, public administration, cultural and social sciences, forestry, geochemistry, industrial ecology and environmental law.
4. there is a higher concentration of civil engineers and hydrologist that are however more present in capital cities and big towns at the expense of the countries’ inner parts.

# Development of a joint training course by the NEPAD Western Africa water centre of excellencies in the water sector in Western Africa

CoE	Sub-topic title
Senegal	Module 1 Frameworks for Integrated water resource management
Ghana	Module 2 Water Allocation and Demand Management
University of Benin	Module 3 Environmental Impact Assessment Module 4 Post Construction Monitoring and Evaluation
NWRI Nigeria	Module 5 Conflict Resolution in River Basin Management

# Training sessions

1. AquaKnow GIS module2.
2. Analysis of precipitation data through the L-moments approach.

The L- moments are statistics that can be used to facilitate the estimation of frequency extreme events.

The functionalities of this module were extensively described during the presentation and can be summarized as follows:

1. find and download spatial datasets from the AquaKnow Geodata Library,
2. share data among registered members uploading data and maps into the system including the possibility of uploading tables in CSV, shapefile formats,
3. represent them in a map (geocoding tools) exploring data tables, customizing your maps/graphs, and
4. perform spatial operations and visualize maps using the Map tool.

# Collaboration between two centres of excellencies

NWRI( Nigeria)/UCAD (Sénégal)

- \* Human resource requirement to meet the water supply and sanitation Millennium Development Goal (MDG) targets is relatively unknown
- \* Therefore there is a need to assess the constraints to meet the MDGs
- \* To sustain services in relation to the numbers of staff, their qualifications and their practical experience

**République du Sénégal**  
Université Cheikh Anta Diop

## Meeting the Water and Sanitation MDGs

*A study of human  
resources capacity gap  
assessment*



EDEQUE-UCAD Report  
February 2013



Global Water for Sustainability  
PROGRAM

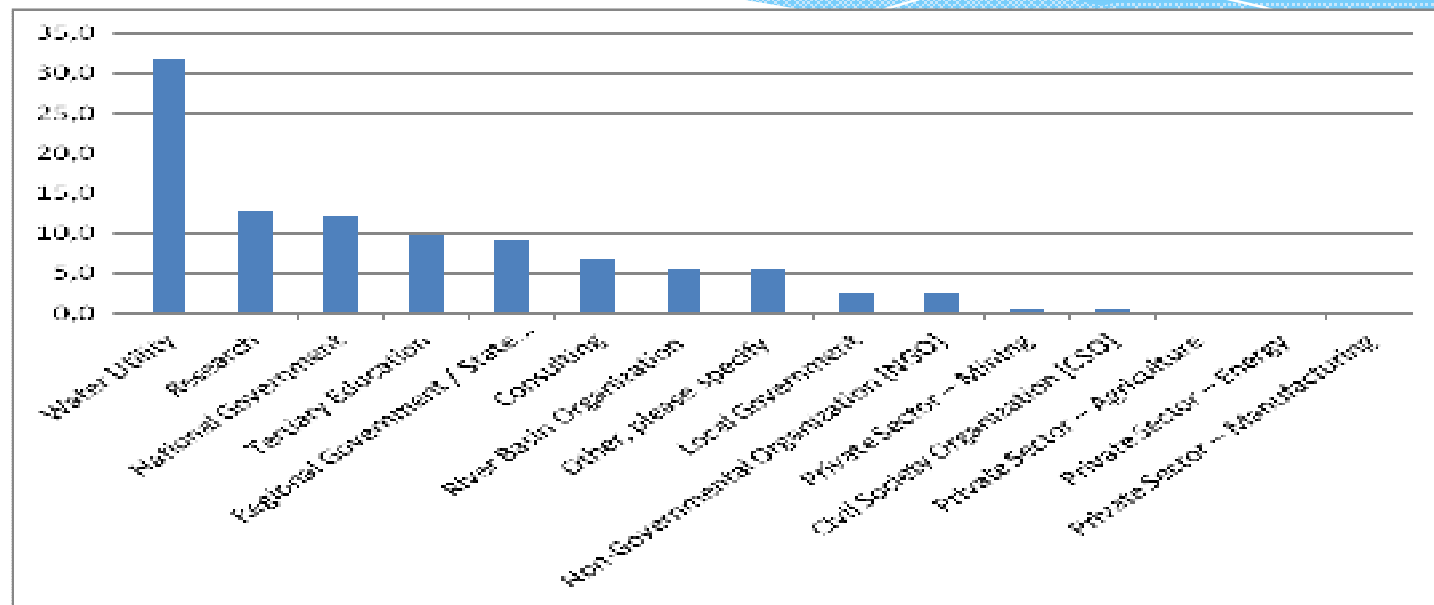


# The idea is to...

- ✓ Estimate existing capacities and qualifications in the water sector in west Africa region ie private, public, academia, NGO, utilities, international partners, etc.);
- ✓ Identify needs in the water sector in West African sub-region for advocacy and consultancy;
- ✓ Establish priorities base on the results of the survey.

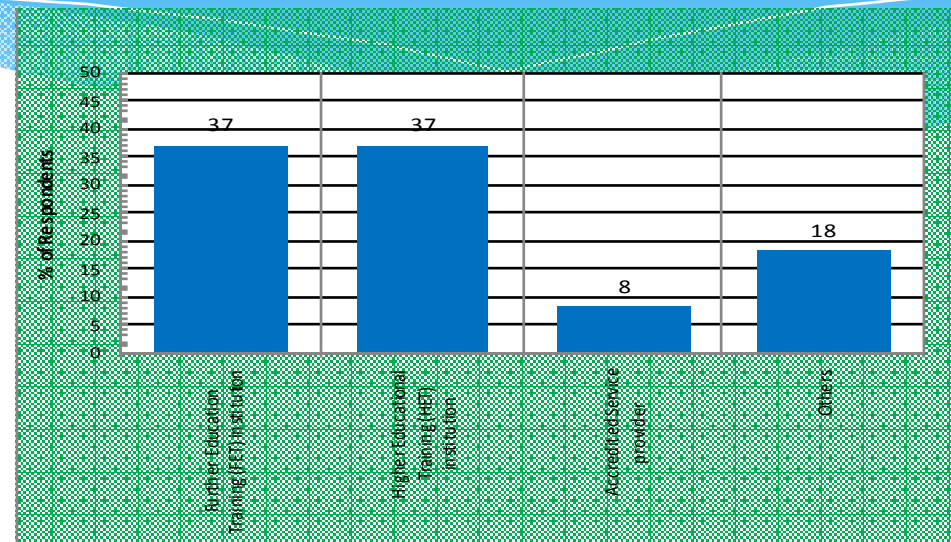
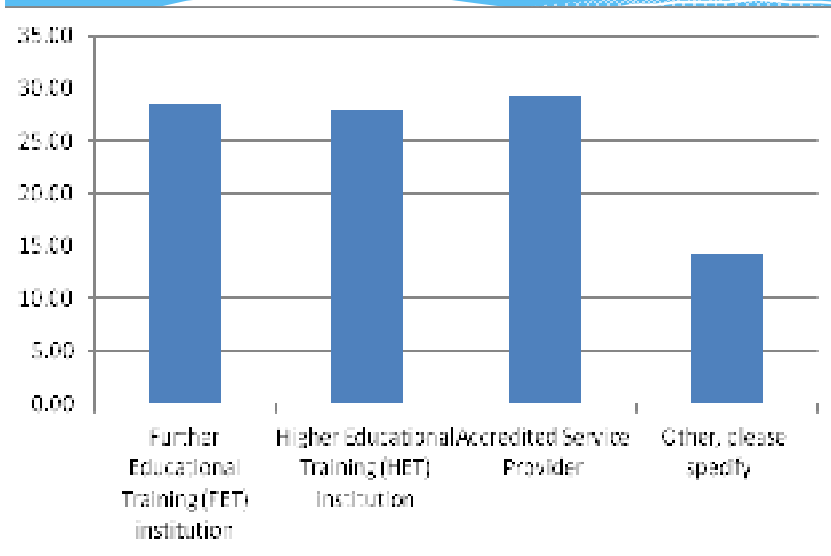


# Responses analysis



**Majority of the assessed skills are from water utility, research, national government and tertiary education institutions.**

# Main type of training



three (3) major types of training service providers are recorded in main countries :

- ❖ Accredited service provider ,
- ❖ further education training and
- ❖ higher education training .

# Collaborations between the two networks: Western and southern

- Using IWRM best practices to develop **Appropriate Capacity and Training for the benefit of Sub-Saharan Africa Water Security [ACT4SSAWS]**
- **Funded by African Union Research Grants and 10th European Development Fund** (The African Component of the ACP Research Programme for Sustainable Development)
- Another Project is submitted in January 2013 : **Water Policy Impact in Sub-Sahara Africa** (developing the water science and technology capacity of higher education and research institution in sub-saharan Africa to improve water policy)
- **To : The Secretariat of the African, Caribbean and Pacific (ACP) Group of States and ACP-EU Co-operation Programme in Science and Technology (S&T II)**

# Main challenges

- \* Finalization of our cooperation with ECOWAS (CCRE)
- \* Cooperation to develop in the sanitation sector with EAA
- \* Cooperation to develop with AMCOW
- \* Cooperation to develop with OMVS, ABN, Volta basin...

# National coopération (Sénégal)

- \* PAGIRE (Plan d'Action de Gestion Intégrée des Ressources en Eau du Sénégal)
- \* PNES (Partenariat National pour l'Eau au Sénégal)
- \* SDE (Sénégalaise Des Eaux)



Thanks

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