



Partenariat National de l'Eau – Togo

**REGIONAL COURSE ON GROUNDWATER AND INTERGRATED WATER RESOURCES
MANAGEMENT (IWRM)**

LOME - TOGO, 12 – 16 APRIL 2010

GENERAL REPORT



After opening ceremony with the State Minister in charge with water resources



Group photo with all participants



Background

The workshop was organised by "Partenariat National de l'Eau" of Togo (PNE-Togo), in the framework of Africa Groundwater Network (AGW-Net) activities, with the financial support of Cap-Net, BGR¹, BMZ², GEUS³ and SPLASH from European Union.

The opening ceremony was held in the conference room of Acropolis Hotel, under the chairmanship of Togolese State Minister of Water, Sanitation and Rural Water Supply. The State Minister in his speech, praised the fruitful cooperation that enables partners from various backgrounds (government responsible for water management and researchers from universities and research centres) to share their experiences.

Activity

The workshop took place in April 12-16 2010. It gathered 16 participants (see participants list) among them 5 females and aims to:

- attract Parliament Members to participate in the workshop, and the senior officials from regional RBO's
- to collect regional case studies on experiences with the development and application of Groundwater Management for IWRM
- to exchange in knowledge and best practices in knowledge transfer and skill development for Groundwater professionals
- to initiate the establishment of a Community of Practice in the African Regions in the field of Groundwater Management for IWRM
- to initiate a multiplier effect in the participating African countries by encouraging the development and implementation of similar national course programmes

This workshop was the first one organised in French speaking country after developed new training materials by AGW-Net and GW-MATE, which was used for this session. PPT presented from Tanzania training course were used and translated into French.

The programme summary was as followed:

Monday 12: moderator: Abdoulaye TRAORE – ZAKARI, President of PNE Togo

Activity	Theme	Facilitator
Module 0	Course Introduction - The need for Groundwater Management	David Kossi Lébéne Agbemedi
Module 1	IWRM & Groundwater Management Framework	David Kossi Lébéne Agbemedi

¹ Federal Institute for Geosciences and Natural Sciences

² German Ministry of Cooperation and Development

³ Geological Survey of Denmark and Greenland

Module 2	Characterization of Aquifer Systems from a Management Perspective	Moustapha DIENE
Exercise / discussions	How knowledge of specific aquifer characteristics can improve groundwater management. Actions to undertake to improve groundwater recharge	Moustapha DIENE

Tuesday 13: moderator: Abdoulaye TRAORE – ZAKARI, President of PNE Togo

Activity	Theme	Facilitator
Module 3	Integrated Groundwater Management in Practice	Mrs Françoise SINGA
Module 4	Groundwater Legislation and Regulation	Mrs Aïta SARR SECK
Module 5	Groundwater Allocation and Licensing	Moustapha DIENE
Module 6	Economic and Financial Tools	KOUEVI Mawuvi Koué
Exercise / discussions	Your countries experiences related to legislation and regulatory aspects to protect and regulate groundwater. Which institutional, legislative and regulatory constraints in protecting groundwater resources	Mme Aïta SARR SECK

Wednesday 14: moderator: Prof. Jean Patrice JOURDA

Activity	Theme	Facilitator
Module 7	Stakeholder Participation in Groundwater Management	Mrs Abla A. TOZO
Case Study	Contribution of CRU-BN (Regional coordination of Niger Basin Users) on stakeholders participation to groundwater management : case of Niger Basin Users	Nouradine Zakaria TOURÉ (participant)
Case Study	Presentation on AGWC / AMCOW	Prof. Jean Patrice JOURDA (Guest)
Exercise / discussions	Costs of water development, treatment and delivery ; Water tariffing ; water governance; Role of stakeholders ; Decentralisation of IWRM at lower level	KOUEVI Mawuvi Koué & Mrs Abla A. TOZO
Field visit	"Togolaise des Eaux (TdE)" at Cacaveli Laboratory of microbiology at Tokoin lyceum Laboratory of water chemistry / Faculty of Sciences - University of Lomé	

Thursday 15: moderator: Abdoulaye TRAORE – ZAKARI, President of PNE Togo

Activity	Theme	Facilitator
Exercise / discussions (suite)	Role of stakeholders in groundwater management Identification of constraints and opportunities for economic and financial tools implementation in groundwater management	KOUEVI Mawuvi Koué & Mrs Abla A. TOZO

Module 8	Groundwater Quality and protection : Priorities and strategies ?	Friedrich HETZEL
Case Study	Cotton farming and water management in BANIKOARA Municipality in BENIN	Adam SOUNON KON'DE (participant)
Module 9	Groundwater Monitoring	Moustapha DIENE
Case Study	Monitoring and assessment of groundwater resources in Mali	Mrs KANSAYE Dicko
Module 10	Information Management and Communication	Mrs Kerstin SCHABERREITER

Friday 16: moderator: Abdoulaye TRAORE – ZAKARI, President of PNE Togo

Activity	Theme	Facilitator
Module 11	Groundwater and Climate Change	Mrs Karen G. VILLHOLTH
Module 12	Groundwater – Surface Water Interaction	ATIKPO Yao Samuel
Workshop closure	Workshop evaluation and conclusion Certificates delivery and ceremony	Organisers

Results

The course gathered senior water professionals of various profiles; two Members of Togolese Parliament were among participants. Exchange and discussion they have during this workshop capacitate them to better handle water law that will be discussed during the next Parliament session. Key resource- persons from Centre of Excellence (2iE), from AGWC and from Volta Basin were invited during this course. Their contributions, along with those of facilitators from AGW-Net, BGR and GEUS were highly appreciated by participants.

Undoubtedly main outcomes can be listed as followed:

- sensitization of political decision makers on the key issues for groundwater management, the presence of Togolese MP needs to be pointed out.
- integrating of groundwater management into river basin management structures through the RBO's, the course encountered participation of senior staff of RBO's like OMVG (Gambia river) and VBA (Volta river)
- develop French language materials in groundwater management methods, main PPT developed for Tanzania course were translated into French
- to train a core of trainers in order to spread information on groundwater management methods and
- to foster the creation of a regional Community of Practice in Groundwater Management concepts and application where skill and knowledge exchange in this field can take place.

Main recommendations that emerged from the workshop can be summarised below:

- Improve knowledge on groundwater system characteristics
- Take account of the diversity of users and uses in the Groundwater Management
- Foster integration of groundwater management into the mandate of RBO/LBOs
- Create networks of quantitative and qualitative monitoring of groundwater resources
- Implement financial and economic instruments for the development of the water sector
- Engage the states in a synergy between actors, especially the ministries of water and the finance for the effective water resources management
- Consider sanitation in water supply projects
- Establish protection zones of production wells
- Involve research institutions and laboratories in the management of groundwater
- Improve resource knowledge (the recharge zone, quality and geological structure) for better management
- Adopt measures to adapt to climate change
- Establish piezometric networks to assess the impacts of climate change on groundwater resources
- Need for a partnership between AGW-Net and the African Groundwater Commission and a call for an effective and operational commission was launched.

David Kossi Lébéné AGBEMDI & Moustapha DIENE

**COURS REGIONAL SUR LA GESTION DES RESSOURCES EN EAU SOUTERRAINE DANS LE CADRE DE LA GIRE / REGIONAL COURSE ON
GROUNDWATER MANAGEMENT IN AN IWRM FRAMEWORK**

PROGRAMME

12-16 Avril 2010 Lomé - Togo / April 12-16, 2010 Lomé - Togo

Horaire	12 Avril 2010 Lundi	14 Avril 2010 Mardi	13 Avril 2010 Mercredi	15 Avril 2010 Jeudi	16 Avril 2010 Vendredi
08:00-08:30	Accueil -Mise en place des participants /Registration and welcoming participants (Organisateurs / organizers)	Récapitulatif du jour précédent / Recapitulation previous day	Récapitulatif du jour précédent / Recapitulation previous day	Récapitulatif du jour précédent / Recapitulation previous day	Récapitulatif du jour précédent / Recapitulation previous day
08:30- -10 h 00	Cérémonie d'ouverture / Opening ceremony (officiels /officials) Module 0 : Introduction du Cours - Importance de la gestion des Eaux souterraines / Course Introduction - The need for Groundwater Management (David)	Module 3: L'application de la GIRE dans la gestion des eaux souterraines / Integrated Groundwater Management in Practice (Françoise) Etudes de cas & exercices / Case study & exercises	Module 6: Instruments Economiques et financiers/ Economic and Financial Tools (KOUÉVI) Etudes de cas & exercices / Case study & exercises (Participants)	Module 8: Qualité des Eaux Souterraines / Groundwater Quality (Friedrich) Etudes de cas & exercices / Case study & exercices: (Participants)	Module 11 : Les Eaux Souterraines et CC / Groundwater and Climate Change (Karen) Etudes de cas & exercices / Case study & exercises
10 h 10h15	Pause -café	Pause -café	Pause -café	Pause -café	Pause -café
10 h 15-12 h 30	Module 1: GIRE & Cadre de Gestion des Ressources en Eau Souterraine / IWRM & Groundwater Management Framework (David) Module 2: Caractérisation des systèmes aquifères pour la gestion des eaux souterraines / Characterization of Aquifer Systems from a Management Perspective (Moustapha)	Module 4: Législation et réglementation dans la Gestion des nappes/ Groundwater Legislation and Regulation (Aita Seck) Module 5: Allocation et Permis dans la gestion des nappes/ Groundwater Allocation and Licensing (Moustapha)	Module 7: Participation des Parties prenantes à la Gestion des Eaux Souterraines / Stakeholder Participation in Groundwater Management (Abla TOZO) Etudes de cas & exercices / Case study & exercises Présentations de cas / Case presentation (TdE / Togo water company)	Module 9: Suivi des ressources en eau souterraine / Groundwater Monitoring (Moustapha) Etudes de cas & exercices / Case study & exercices (Participants) Présentations de cas / Case presentation (Geology department Lomé University)	Module 12: Les interactions eaux souterraines eaux de surface / Groundwater – Surface Water Interaction (Samuel Yao ATIKPO, VBA) Etudes de cas & exercices / Case study & exercices Evaluation et conclusion de l'Atelier / Workshop Evaluation and closure (David)
12h 30-13h 30	Pause-Déjeuner / Lunch break	Pause-Déjeuner / Lunch break	Pause-Déjeuner / Lunch break	Pause-Déjeuner / Lunch break	Pause-Déjeuner / Lunch break
13h 30-15 h 00	Etudes de cas & exercices / Case study & exercices (Participants)	Invité / Guest Lecturer (AMCOW)	Visite de terrain / Field visit (TdE, Université de Lomé)	Module 10: Communication et Gestion de l'information / Information Management and Communication (Kerstin)	
15h-15h15	Pause -café	Pause -café	Pause -café	Pause -café	
15h 15-17:00	Etudes de cas & exercices / Case study & exercices (Participants)	Etudes de cas & exercices / Case study & exercices Présentations de cas / Case presentation (Participants)			
17.00 – 17.30	Réunion d'évaluation	Réunion d'évaluation	Réunion d'évaluation	Réunion d'évaluation	