

Curriculum Vitae

Name MEDAHID
First name Mohamed-Abdallahi
Date & place of birth Dec. 15, 1973 at Tidjikja (Mauritania)
Nationality Mauritanian
Profession **Water & Sanitation Expert**
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PROFILE & SKILLS

Water specialist, with advanced Master's degree (*Management of Water and Sanitation Utilities*), Master's degree (*Control and Water Management*) and having an intense experience (*over almost 17 years*) in water supply and sanitation field, covering both, rural and, semi urban areas as well as urban centers. This professional career concerns mainly, engineering of water supply projects, but also, management and operation of utilities and infrastructures.

In addition to this experience led in the development field, I have recently started a humanitarian experience within International NGO, in Ethiopia, Libya, Guinea, DR Congo and Togo.

Over my professional career, I have acquired hard professional competencies, through leading, participation and /or contribution in large water supply projects, carried out recently in the country, including among other roles:

- The Master plan of Nouakchott city water supply network,
- Nouakchott city water supply network Project (7 tenders of works, **\$US 134 Million**),
- Dhār Project: Studies and works (**120 Million €**),
- In addition of small and mid-scale projects
- The diagnostic of water supply Service of Nouadhibou (2nd town in the country),
- Water supply project for Bukavu city in DR Congo (master plan, technical feasibility studies, procurement documents, ...)
- Technical assistance for Togolese ministry of water resources (water and sanitation strategies, development plans, ...)

Through this career I have developed the following skills:

- Leading studies to analyze the economic, technical and institutional feasibility of water supply and sanitation projects;
- Scenarios exam to reach the adequate solutions;
- Perfect master and design of sizing, pipelines, facilities, hydraulic constructions, pump stations, tanks, reservoirs, etc.;
- Recognized experience in management, supervision of professional teams;
- Confirmed knowledge of strategic analysis,
- Agreed experience to fulfil tender procedures. From ToR of engineers and contactors bidding documents

1. LEARNING AND DIPLOMAS

2014: National School of Rural Engineering, Water and Forests – AgroParisTech, Montpellier, France, **Advanced Masters** (6-year degree) Water for All: Management of Water and Sanitation Utilities

2000: Faculty of Sciences and Technical –University of Nouakchott, Masters in water sciences, option « Mobilization of underground water resources »

1999: Faculty of Sciences and Technical –University of Nouakchott, Bachelor in water sciences, option « Control and Water Management »

1997: National Institute of Agronomy – University of Batna, Batna – Algeria, Agronomic engineering common section

1992: Secondary school of Tidjikja, Mauritania, Baccalaureate in natural sciences

2. LANGUAGES & INFORMATIQUES

| Language | Reading | Writing | Speaking |
|----------|---------------|-----------|-----------|
| Arabic | Mother tongue | | |
| French | Excellent | Excellent | Excellent |
| English | Very Good | Very Good | Good |

Perfect computer tools usage:

- ✦ MS Office;
- ✦ AutoCAD
- ✦ EPANET
- ✦ Water Cad
- ✦ ArcGIS

3. PROFESSIONAL EXPERIENCES

1. December 2016, Arab Bank for Economic Development in Africa: Technical Assistant for Togolese Ministry of Water Resources:

- ✓ Provide technical advice to the Directorate General of Water and Sanitation for the improvement of the sector and the implementation of the tools for the evaluation and project execution follow-up,
- ✓ Participate in estimating project costs, establishing a methodology for project development and evaluation, and drafting contracts for own finance projects,

- ✓ Assist the Ministry in selecting cost-effective and priority projects in the water and sanitation sector,
- ✓ Monitor the execution of studies, regional analyzes, and local and regional files for the development of major plans in the field of water supply and sanitation,
- ✓ Contribute to the mobilization of the necessary funds for the execution of projects,
- ✓ Train technical staff to strengthen their capacities in the management and monitoring of project implementation.

2. May 2016 Mercy Corps (an INGO) Senior Water and Sanitation Engineer, Democratic Republic of Congo (DRC)

In line with the vision, mission and core values of Mercy Corps, my role as Senior Water and Sanitation Engineer is to ensure adherence to implementation standards, effective and efficient execution of the different phases of design and construction of water and sanitation infrastructure in Bukavu, a town of more than 1 million inhabitants in eastern part of DR Congo.

I oversee the design and implementation of water and sanitation projects in Bukavu area targeted by the IMAGINE program.

- Analyze/review drawings and designs submitted for Water systems and sanitation infrastructure in Bukavu, supervise construction works and ensure conformance to design specifications and required standards,
- Organize / conduct audits of ongoing work periodically with the other government and nongovernment partners such as Regideso, the CPAEA, division of health, consultant and construction firms etc
- Maintain positive and professional relationships with consultants and contractors
- Manage and maintain accurate field notes and prepare comprehensive reports
- Inspect materials delivered for the works
- Ensure compliance of projects to quality, environmental, social, health and safety policies
- Ensure that systems are tested and that approvals are secured prior to commencement of subsequent phases of works
- Attend progress review meetings
- Ensure that as-built drawings are submitted within the timeframe stipulated in the contract and in the right format
- Together with the technical team in Goma, maintain an up-to date database for monitoring progress of activities and keeping record of issues, risks, mitigation measures implemented, residual risks etc and constantly report to the supervisor
- Assist the deputy program Director – Infrastructure with verification of interim payment certificates submitted by the firms
- Ensure compliance with logical sequence of activities during the implementation of the work and recommend for approval and payment of all completed activities in line with guidelines and procedures established by the program.
- Document technical challenges and problems / issues encountered and report to the supervisor.
- Propose and report on any required technical modifications to the works being undertaken that may result from any unforeseen constraints
- Participate actively in development of designs and make recommendations for modifications where necessary to ensure proper functioning of the system.

3. Dec. 2015: International Medical Corps (INGO) IMC: IPC WASH Manager, Guinea;

- Oversee and advise on technical implementation of environmental health-related activities at the SRU and technically support activities at the associated health center
- In close collaboration with the IPC WASH Coordinator, develop and ensure strict adherence to protocols and SOPs for various tasks at the SRU and, where necessary, in community-based interventions.
- Ensure regular and effective communication with the IPC WASH Coordinator, all International Medical Corps team members and associated health facilities leadership
- Monitor and evaluate appropriate implementation of technical interventions against program objectives;
- Assure appropriate and timely implementation of environmental health-related IPC interventions
- Provide regular reports, document results and lessons learned, and maintain detailed records
- In collaboration with relevant technical advisors, develop and deliver specific training for associated health facility staff

4. Dec 2014: Doctors without Borders – France: Country WATSAN manger, Ethiopia and Libya

- Water and sanitation manager for all MSF projects in Ethiopia. I was responsible for the correct implementation and monitoring of the overall Water Hygiene and Sanitation content of projects in the country. This according to universal health standards and MSF procedures, in order to ensure protection to the public health.

5. September 2014 December 2014: *Head of Studies and Planning Service at the National Society of Water, the company in charge of water supply for the largest urban centres in Mauritania.*

- ❖ Processing interpretation et analysis of data from water supply infrastructures;
- ❖ Set up of annual action plans;
- ❖ Identification, design and implementation of necessary improvement programs;
- ❖ ❖Planning of forecast capital budgets
- ❖ Preparation of fund requests and its mobilization for studies and works projects;
- ❖ Ensure the interface with the donors for project evaluation and funding negotiation;
- ❖ Establishment of studies ToR;
- ❖ Coordination with consultancies offices and Consulting engineers (CE);
- ❖ Review to approbation, of documents performed by CE (APS, APD, DAO, etc. ...);
- ❖ ❖Verification and validation of studies reports;
- ❖ Synthesis of project progress reports;
- ❖ Control of payment statement to relaying onto financial department;
- ❖ Preparation of project completion reports;
- ❖ Evaluation work impact;
- ❖ Elaboration of project dashboards;
- ❖ Presentation of project reports;
- ❖ Redaction of quarter and annual reports of activities.

6. August 2011: The International Committee of Red Cross,

☑ Delegation of Nouakchott: Water and Habitation Field Officer

I was responsible for the correct implementation and monitoring of the overall Water Hygiene and Sanitation content of projects in the country. Mainly for free deprived persons and the Malian refugees in Mauritania.

I was constraint to leave this job for personal raisons, related to the advanced masters diploma I was preparing in France in collaboration with the national society of water (SNDE). So I was forced to return within SNDE, otherwise, I'll be not allowed to get my graduation, scheduled in September.

August 2008 - July 2014: The National Society of Water (SNDE) - Mauritania, the society in charge of drinking water supply services in the urban centres of the country, including Nouakchott.

7. August 2014 to December 2014: Head of Studies and Planning Service at the National Society of Water, the company in charge of water supply for the large urban centres in Mauritania.

- ✓ Processing, interpretation et analysis of data from water supply infrastructures;
- ✓ Set up of annual action plans;
- ✓ Identification, design and implementation of necessary improvement programs;
- ✓ Planning of forecast capital budgets
- ✓ Preparation of fund requests and its mobilization for study and work projects;
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- ✓ Elaboration of project dashboards;
- ✓ Presentation of project reports;
- ✓ Redaction of quarter and annual reports of activity.

☐ Focal point of DAD (Development Assistance Database) project:

The DAD project is a platform centralizing all data on development project from all Departments of state

A focal point has designed at each Departments, responsible of the following tasks:

- Collect and verification of data from all projects;

- Database creation on the DAD platform;
 - Follow up and database update.
 - **DWS of Kiffa and Guerou from Fom Gleita dam:** This project aims to satisfy the drinking water need for 2 cities (+100.000 inhabitant) through 200 km adduction crossing too rough terrain, and by the treatment of surface water stored by the Dam.
 - Elaboration of Terms of references to Consulting Engineer hiring
 - C.E shortlist selection
 - Establishment of proposal request
 - EC recruitment
 - Studies supervision (Draft report, Detailed technical report and Tender documents)
 - Funding request establishment for work stage.
 - **WSN of Gouraye - Sélibabi axis from Senegal river:** this project aims the entire satisfaction in drinking water needs of Selibabi town, the centre of Gouraye and 5 intermediate localities (90.000 inhabitants) by setting up surface water treatment plant, pipeline for water conveyance over 45 km as well as related structures
 - Elaboration of Terms of references to Consulting Engineer hiring
 - C.E shortlist selection
 - Establishment of proposal request
 - EC recruitment
 - Studies supervision (Draft report, Detailed technical report and Tender documents)
 - Funding request establishment for work stage.
 - **DWS for the eastern region (5 urban centres):** guarantee the drinking water coverage for the populations of Hodh Chargui wilaya (130.000 inhabitants) up to 2030 horizon, from the underground water of Dhar.
 - 432Kmf of Ductile Iron pipelines with different diameters: 200 to 400mm;
 - Design and sizing of 20 water towers between 200 and 2500m³, for: storage, collect, breaking pressure.
 - 17 pumping stations and boosters,
- ✓ **Studies phase: 150 K€,**
- Donors:** Arab Fund of Economic and Social Development (AFESD)
- Economic and financial studies of project;
 - Preliminary and Detailed Design; ○ Contractor Tender Documents;
- ✓ **Works phase: 124 Million €,**
- Donors:** Arab Fund of Economic and Social Development (AFESD) and The Islamic Development Bank (IDB)

- Negotiations for funding mobilization with donors (FADES, BID);
- Launching and evaluation of tenders documents;

8. From 2008 to 2011: Project Engineer at The Studies and Projects department-SNDE:

- **Responsible of preliminary and detailed studies of project:** "The hydraulic and electric connection of drilling to the Drinking Water Supply networks of 2 semi urban centres (Djiguenni & Knakossa)
 - Monitoring and work control of 16 drillings implementation;
 - Follow up of pumping tests;
 - Hydraulics studies;
 - Preparation of Tender Documents for works.
- Feasibility study of project: Reinforcement of drinking water supply of Aleg city (**Capital of Wilaya:**

Donors: French Agency for Development (**AFD**) **550 K€** ○ Update of Tender Documents previously prepared by an independent consultant; ○ Negotiation of funding with the donor;

The works concern:

- Supply and installation of 12 km of adduction pipeline in PEHD ID 250 mm;
- Supply and implementation of 12 km of MT lines;
- Electro mechanic and hydraulic drilling equipment with flow $> \dot{V} 70 \text{ m}^3/\text{h}$.
- Review for study updating and project supervision for construction of Magtaa Lahjar (semi urban centre) DWS project:

Reviewing the study and updating documents of before-project summary, before project detailed and the tender documents, **prepared 3 years before by a consultancy office**

Government Budget (Mauritania), 6.75 M€

- Construction of 3 tanks semi buried each of 500 m³ capacity;
- Installation of 107 km of PEHD InD 315 pipes; ○ 4 pumping plants.
- **Master plan of Distribution Network of Nouakchott city:**

This project aims to ensure entire drinking water service for all Nouakchott city populations at the 2030 horizon. The main purpose is to supply every house an individual connection.

It's conducted on 2 phases: Studies and works and it consists to

Carry out works of extension, rehabilitation of more than 900 km of distribution networks;

Execution of more than 70.000 connections;

Building and equipment of 4 pools of distribution made up by:

- Concrete tanks;

- Boosters and pumping plants with variable speed;

Donors: AFESD, IBD, Kuwaiti Fund, Saudi Fund

- Contribution, within a project team, in charge of follow up, coordination and approval of studies' reports;
- Interface between SNDE and Engineer-Consulting in charge of study carrying out;
- Focal point for negotiation of fund with donors for the works phase,
 - Preparation, launching and assessment of tender documents.

□ **Monitoring and control of works of the reinforcement of the DWSnetwork project of Nema city (Capital of wilaya):**

- Design and sizing of:
 - ☒ works and pumping facilities;
 - ☒ Construction of water-tower of 100 m³/15, Collect network pipes;
 - ☒ 6 km adduction in PEHD DE 160;
 - ☒ A pressure rework plant 36 l/s ○Equipment of 6 boreholes
 - ☒ Preparation of tender documents
 - ☒ Launching and assessment of tender documents;
 - ☒ Follow up of works

9.From April 2002 - August 2008: National Agency of Drinking Water and Sanitation (ANEPA),

The Agency in charge DW&S services in the rural and semi urban areas of the country. It covers a perimeter of + 400 localities of scale <à 5000 inhabitants.

□ **July 2004 – August 2008:Head of Studies and Program Service, at the Technical Direction - ANEPA:**

- Coordination DWS studies projects; ○ Follow up of water resources and wellfield; ○ The diagnosis of dessert problems ○ Elaboration of the facilities and infrastructures development program; ○ Elaboration and carrying out the emergencies programs in the rural context.

□ **Project Manager of The fighting against poverty program in 22 localities (rural areas):**

Component: Water.

It aims to guarantee water supply for these localities by building 22 Drinking Water System.

- Design, topographic Study and hydraulic sizing of DWS systems:

- 5 solar DWS pumping plants ○17 thermic DWS pumping plants;
- 22 water-towers; ○30 km of adduction pipes; ○80 of distribution networks

- Preparation, launching and assessment of the tender's documents for works phase;
 - Coordination and supervision of work phase.
- **Monitoring and Control of the DWS works of 6 rural localities project:** it concerns the equipment in drinking water systems for the following rural centres: *Nbeika, Letfetar, Syassa, Boulahrath I & II et Hsey Ettinn.*
- ▣ Design, topographic Study and hydraulic sizing of DWS systems:
 - 2 solar pumping stations;
 - 4 thermic pumping stations;
 - 6 concrete water-towers
 - 35 km of networks
 - ▣ Preparation, launching and assessment of the tender's documents for works phase;
 - ▣ Coordination and supervision of work phase.
- **Solar Regional program II in Mauritania:**
- Donors: European Union (8ème FED) + Government** Supervision of pumping tests program;
- Pumping tests on 20 boreholes in different contexts (continuous et fractured)
 - Focal point of the Project,
- **Follow up and supervision for the works construction of DWS networks in 6 semiurban centres:** Bassiknou, Djiguenni, Kobenni, Kankossa, Maghama et Bababé
- o draft summary studies o Follow up of the detailed draft APD o Monitoring :
- Implementation of 10 boreholes;
 - Pumping tests;
 - Installation of 70 km of distribution networks;
 - Building of 80 concrete water-tower of 80 m³/20;
- **The works follow up and control of the III phase Saudi program of ruralhydraulic:**
- 24 entire system of drinking water system (boreholes, DWS networks)
- **Monitoring and control of the project “Water of Hope (EdE)” :**
- Donor : EU**
Construction of 36 DWS networks:
Pumping tests
- ▣ Solar equipment of boreholes
 - ▣ Pipelines for adduction and distribution
 - ▣ Building of storage and distribution tanks

April 2002 – July 2004: Cadre technique, at the Technical Direction ANEPA, in charge of: ○Hydraulic Diagnosis for networks and wellfields; ○Design and studies of distribution networks extension; ○Monitoring of boreholes production

□ **Responsible of priority program in the Wilaya of Brakna: Feasibility studies of DWS networks in 9 small localities:**

- Socioeconomic study; ○ Networks design; ○ Data analyse;
- Design and sizing of pumping facilities, storages and distribution networks ○ Financial assessment

10. From November 2000 to April 2002: Private Consultation Office: PHY (Prospections Hydraulique PHY)

- **Feasibility study of hydraulic program for the Wilaya of Hodh Chargui:** Project manager for construction of 9 DWS networks, in charge of:
- ▣ Elaboration of preliminary and detailed documents:
 - Topographic studies;
 - Design and sizing of pumping facilities, storages and distribution networks;
 - ▣ Control and follow up of works implementation
- **Control of the works of the DWS networks in 3 semi urban centres:** Tiguint, R'kiz (Trarza) and Magtaa - Lahjar (Brakna)

Freelance

World Vision: Base de Kiffa

Feasibility study of hydraulic program (Kankossa): APS, APD et DAO Studies and control of DWS systems of 7 localities:

- Socio-economic surveys;
- Analyses of technical data;
- Design and sizing of pumping facilities, storages and distribution networks;
- Financial estimation

Feasibility study of hydraulic program (Barkéol): APS, APD et DAO Studies and control of DWS systems of 4 localities:

- Socio-economic surveys;
- Analyses of technical data;
- Design and sizing of pumping facilities, storages and distribution networks;
- Financial estimation • Borehole implementation.

Improvement of Maghama recession crop project:

Study and control of the base camp water

facilities: ○ Implementation and drilling control

○Construction of a water-tank of 20 m³/4 with reinforced Concrete;○Distribution Network and plumbing

Agency of Promotion to universal service access (APAUS)

Reinforcement of the water production of Monguel city (semi urban centre):

- ☒ Topographical surveydischarge line10km;
- ☒ Design ofpumping equipment;
- ☒ ConnectionNetwork Designonexistinginstallations.