

Title

Project kind

Internship/Minor/Volunteer work

Heading

Research/ Technical Civil Engineering on Water Treatment in Ghana

Short description

Financial and technical assessment of the impact of the threat posed by a failed sludge treatment system on water treatment and quality of service delivery from major treatment plants in Weija, Ghana. Reliability to service delivery from the Weija treatment plants is becoming increasingly compromised by changes in raw water quality and the cost of maintenance of treatment infrastructure. The main goal is to ensure sustainability of service delivery to supply area served from the treatment plants and provide potable water for urban Ghana.

Country

Ghana

Category

Engineering

Project duration

Ongoing

Minimum length of stay

2 months

Starting period

Flexible

Number of students

1

Project fields

Water management, Technical, Engineering; physical and biological sciences

Project information

Project description

The project involves a comprehensive view of all aspects of water treatment, including source water management, treatability studies, process treatment, water quality examination (physico-chemical & bacteriological) and electromechanical maintenance.

Problem statement: Access to potable water to a major part of the population is challenging. Industrial and agricultural activities have polluted most water sources, especially surface water. In order to reduce the disease burden and to promote public health, the government of Ghana established the Ghana Water Company Limited with a sole mandate of urban water supply.

Goal: Provide good quality potable water in accordance of the Ghana Water Quality Standards for urban Ghana (in this case the Accra Tema Metropolitan Area)

The internship

Role of the intern:

Participate in the desk research in combination with field work in potable water production process. Intern will play a key role in monitoring operation, asset management, collection data and desk analysis of data and report writing.

Specific activities:

Monitoring source water quality, performance of treatability tests (e.g. jar tests, chlorine demand tests), chemical feeding (alum, chlorine and lime application), dislodging of wastewater, backwashing of filters, inspection and maintenance of electromechanical equipment, report writing.

The facilities

Supervision: Field coordinator with degrees in HND Lab. Tech; MSC Environmental Science.

Workspace for intern: Office at plants in Weija and Kpong

Introduction and guidance during project: Will be provided by field coordinator

Accommodation options: In Weija in a homestay next to the workplace in the community or in a single room at the training school with other students at the workplace. Self-catering or two meals a day.

Let's Go Africa intern/volunteer packages include:

- Suitable project with project description according to all criteria
- Pre-departure introduction & safety meeting
- Visa application (and extension) assistance + flight booking and transport advice
- Accommodation at the project
- Some meals (own contribution required)
- Airport pick up
- In-country introduction regarding country, project and your role
- Experienced and qualified supervisor and contact person constantly available
- Support and guidance from the moment of registration until return back home
- Interaction with local community and experiencing the local culture
- Country information brochure
- Informal feedback session & LGA certificate (proof of participation)

The costs

LGA package described above.

Total costs: €400 - €525 (depending on Volunteer work/Minor/Internship and length of stay)

Please email us at info@letsgoafrica.nl for an exact cost calculation or if you have any other questions.

Intern requirements

- Fully Self-funded, however we do encourage fundraising or crowdfunding
- Passionate and capable in your field
- Able to adapt to Ghanaian culture and prepared to integrate in rural living conditions
- Confident and able to create positive professional relationships
- Ability to use initiative
- Can work independently and is creative
- Good organizational and interpersonal skills
- Committed and be prepared to learn.