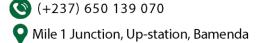


# VOCATIONAL TRAINING INSTITUTE HOPE FOR A BETTER FUTURE

Auth No. 09/ADD/MINEFOP/SG/DREGFOP-OU/DREFOP-MIFI





### Biogas Training Course Outline

#### 1. Introduction to Biogas (Duration: 1/2 Day)

- What is biogas?
- History and applications
- Benefits: environmental, economic, health
- Types of biogas systems (household, institutional, industrial)
  5,000 CFA

Module 1 & 2 will be covered in 1 day

## 2. Feedstock & Digester Biology and Biogas Plant Design & Sizing (Duration: 1/2 Day)

- Types of feedstock: animal manure, food waste, crop residues, sewage
- Microbial digestion process (anaerobic digestion)
- pH, temperature, retention time, C:N ratio
- Common challenges in digestion
- Fixed-dome, floating-drum, tubular & plug-flow digesters
- Calculating feedstock input & gas output
- Materials for construction
- Site selection criteria 10,000FRS

#### 3. Construction & Installation (Duration: 2 Days)

- Preparing materials
- Installing the digester
- Gas storage & piping systems
- Safety considerations 18,000FRS

Click on the link below or copy it and past in your browser to apply https://ee.kobotoolbox.org/x/f3TSvevE

#### 4. Biogas Utilization (Duration: 1 Day)

- Cooking, lighting, electricity generation
- Upgrading biogas to biomethane
- Use of slurry as organic fertilizer
- Conversion of engines to run on biogas 20,000 CFA

#### 5. Operation & Maintenance (Duration: 1 Day)

- Feeding schedule
- Monitoring gas production
- Handling effluent (bio-slurry)
- Troubleshooting common problems (e.g. low gas, odors)
  7,000 CFA

#### 6. Entrepreneurship

- Entrepreneurial Mindset
- Problem Identification
- Market research
- Business modelling and development

NB: Entrepreneurship lesson days will be communicated once the program starts. There are no extra fees for Entrepreneurship.

Click on the link below or copy it and past in your browser to apply <a href="https://ee.kobotoolbox.org/x/f3TSvevE">https://ee.kobotoolbox.org/x/f3TSvevE</a>