

## 2.12. CONSULTANCY AND OTHER SERVICES

### 2.13.1 Consultancy and Advisory Services

Several consultancy and advisory services for various donor agencies, corporate bodies, governmental and non-governmental organizations, universities and polytechnics, public and private sector institutions as well as individuals were carried out by the Institute. The significant ones included:

- Integrated Community Water, Sanitation and Hygiene improvement Project (ICOWASH, 2018); Hydrogeological investigations for Borehole Siting and Construction of 20 Boreholes in the West Mamprusi District in the Northern Region of Ghana. Project funded by the Catholic Relief Services (CRS).
- Siting and Drilling supervision of Six (6) Boreholes in West-Mamprusi District of the Northern Region of Ghana under the Catholic Relief Services (CRS) - funded ICOWASH 2018.
- Hydrogeological studies to select drilling sites for Gentle Giants Co. Ltd at Gomoa Mpota in the Central Region.
- Drilling, Pumping test and Water Quality analysis of water sample from borehole at Gomoa Mpota in the Central Region.
- Geophysical survey for borehole siting at Nsakyi in the Eastern Region for Gentle Giants Limited.
- Environmental Consultancy Services: Assessment of the state of Water Bodies affected by Galamsey activities in 8 regions in Ghana. Consultancy services done for the Media Coalition against Galamsey (MCAG) funded by Star-Ghana.
- Consultancy Advisory Services for the *Media Coalition against Galamsey*: Provided research input on the destruction of Water Bodies and the Environment by Illegal Small Scale Mining in the Mining Communities throughout the country at the Town Hall Meetings organized by the Coalition. In 2018 Twelve Town Hall Meetings and Editors' forum took place in Tamale/Tongo in the Northern region, Wechiau and Wa in Upper West Region, Obuasi and Patriensa in the Ashanti Region, Osino and Kibi in the Eastern Region, Takoradi and Nsuaem in the Western Region, Talensi and Gbane in the Upper East Region.
- Contributor to Ghana Biodiversity Clearing House Mechanism website (Client: Ghana Biodiversity Clearing House)
- Training assistance was given to tertiary students on attachment. (Clients: All Universities in Ghana)
- Advisory services to enquirers to the Fishery & Aquaculture Division (Client: general public)
- Surface water ecological studies/monitoring (Client: Newmont Golden Ridge Limited, Akyem)
- Ecological study of the Water Storage Dam (Client: Newmont Golden Ridge Limited)
- Apensu Lake profile water quality assessment (Client: Newmont Ghana Gold Limited).
- Physico-chemical and Bacteriological Quality Assessment of Boreholes and Tap Water for the Oyibi Area Water and Sanitation Development Board.

- Final Effluent Quality Assessment for Pioneer Food Cannery Limited.
- Final Effluent Quality Assessment for Phyto-Riker (GIHOC Pharmaceuticals).
- Potable Water Quality Assessment for Pioneer Food Cannery Limited.
- Water quality assessment of Sansu community in Obuasi (Client: AngloGold Ashanti Ghana)

### **2.13.3 Training services**

The institute, through the technical divisions, individual research and technical staff, offered training in capacity building/human resources development activities in various forms to individuals, groups, non-governmental organizations and students of the universities and technical universities. These include:

1. Supervision of PhD (Aquaculture and Environment) Thesis – Effects of climate change on fish production in the Volta Lake.
2. Pond and Tank Fish Farming Training (for 20 farmers) – Ministry of Fisheries and Aquaculture Development/WARFP Sponsored Training Program, 21<sup>st</sup> – 25<sup>th</sup> May, 2018
3. Pond and Tank Fish Farming Training (for 20 farmers) – Ministry of Fisheries and Aquaculture Development/WARFP Sponsored Training Program, 30<sup>th</sup> April – 4<sup>th</sup> May, 2018
4. Pond and Tank Fish Farming Training (for 20 farmers) – Ministry of Fisheries and Aquaculture Development/WARFP Sponsored Training Program, 16<sup>th</sup> – 20<sup>th</sup> April, 2018
5. Pond and Tank Fish Farming Training (for 20 farmers) – Ministry of Fisheries and Aquaculture Development/WARFP Sponsored Training Program, 5<sup>th</sup> – 9<sup>th</sup> March, 2018
6. Teaching at the CSIR College of Science and Technology (Mphil. Aquaculture Programme in Fish Nutrition and Fish Feeds).
7. Selection and Management of fish diets (3 training sessions for selected tilapia and catfish farmers in Ghana, with an average of 16 participants per session).
8. Supervision of mini projects of student from University of Ghana, Legon, and another from Kwame Nkrumah University of Science and Technology, Kumasi during their Industrial Attachment at ARDEC, Akosombo. Some of these Supervisory roles include:
  - i. Supervisor of Laboratory services for PhD candidate for the University of Western Ontario, Canada on the Topic ‘The impact of small-scale mining on waterbodies and treatment in Ghana’

- ii. Mr. Albert Elikplim Agbenorhevi, MSc student, Institute of Water and Energy Sciences (Including Climate Change), Pan African University. Thesis: Impact of Climate Change on Groundwater Resources of the Atankwidi Basin in Ghana, West Africa.
- iii. Mr. Frank Owusu Adjei, PhD student, Kwame Nkrumah University of Science and Technology. Thesis: “Remote Sense-Based Evapotranspiration for hydrological modelling in the Densu River Basin”; ongoing.
- iv. Mr. Isaac Larbi, PhD student of the Climate Change and Water Resources programme, University of Abomey-Cavali, Benin. Thesis: “Assessment of environmental change impacts on groundwater recharge in the White Volta river basin, West Africa”; ongoing.
- v. Mr. Eugene Ansah, PhD student at the Chemistry Department, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. Thesis: “Heavy metals and xenobiotics in water and soil/sediment from the informal economic sector of Ghana: distribution, transport, modelling and risk assessment”; ongoing.
- vi. Examination of PhD thesis of Ms. Christine Okae Asare, Candidate in the Department of Environmental Science, and University of Ghana on the thesis topic “Mainstreaming and Measuring Sustainability in the Development Planning Process: The use of Strategic Environmental Assessment as a Tool in Ghana”. 2018.
- vii. A semester-long supervision of a mini project work of a student from the University of Energy and Natural Resources, Sunyani.
- viii. External Assessor for undergraduate and Graduate Students of the Department of Chemistry, University of Ghana, Legon.
- ix. Appointment as a Technical Advisor and Co- Supervisor to Mr. Iddrisu Bukari, a Master of Public Health Student of School of Public Health (UHAS) on a Research Work entitled “Microbial Contamination of Sachet Water and Environmental Pollution of Sachet Water at Hohoe Municipality of Ghana”