

Namaste

# Groundwater study in CDG

- Hydrogeology (groundwater) course is available only at the Central Department of Geology, Tribhuvan University
- However Groundwater ( water chemistry) is included as a part of the Environmental Science in various campuses.

# Groundwater study in CDG

- 2<sup>nd</sup> Year students of the Masters level choose one of the 3 streams available, Hydrogeology is compulsory for all streams.
- Hydrogeology is also included in the subjects like Geophysics and Geochemistry.

# Additional subjects available at CDG that help students of Hydrogeology

- Geophysics
- Geochemistry
- GIS and remote sensing
- Engineering Hydrology
- Project management

In the past these research works concentrated on:

- Groundwater exploration studies
- Groundwater estimation and resource evaluation studies
- Groundwater quality and contamination studies
- Water Balance studies

In recent years however the research works have diversified into fields like

- Post project impact and effective management studies with reference to optimum utilization of groundwater, distribution practices, increase in productivity and economic benefits.
- Trace analysis studies to determine the groundwater flow.
- Effectiveness of current drilling practices and well designs.
- Detail study of hydrogeological sub-basins within a regional basin.
- Groundwater monitoring for change in water balance in the basins.

CDG in the past have carried out joint studies in Hydrogeology with organizations like:

- JICA
- Fulbright
- GWRDB
- Department of Mines and Geology
- NEWAH
- Water Aid Nepal
- WHO
- ENPHO
- Nissaku

# Facilities available

- Laboratory facilities available at CDC, Department of Microbiology.
- Various kits like Hach Kit and water Lab available for on the spot water quality tests in addition to pH meters, conductivity meters, flow meters etc.
- Various GIS software for map construction. The effort to perform comprehensive analysis of management scenarios will be substantially reduced by an easily accessible database, a convenient interface between database and groundwater models, visualizations and analysis utilities for model inputs and results. Geographical information systems (GIS) can provide some of these tools.
- Geophysical equipments

# Our strength

- Academically sound and dedicated personnel in the form of the students and the faculty.
- Projects can be implemented relatively cheaply.

# Our weakness

- Lack of budget for research works so usually have to depend on the secondary data which are not always fully useful for our purpose.
- Lacking in various equipments and proper laboratory for detail and extensive studies.

# Geophysics for groundwater

- The CDG has one of the most advanced facilities for geophysical investigations.