

# Training and capacity building In the field of Hydrogeology

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## Purpose of capacity building

To enhance capacity building of Afghan young generation theoretically and practically during implementation period for 2013 in the field of Hydrogeology courses.





# Existing situation of drinking water use in Faryab province



Life expectancy challenge of Afghan young generation with unsuitable drinking water



#	Training Modules and Topics For 2013
1	<b>Hydrogeology I</b>
1.1	Groundwater Investigation: Geological, hydrological and meteorological studies. Origin, occurrence of groundwater, collection of water sources data. Exploratory drilling, selection of drilling sites, <u>deside</u> which type of drilling rigs. Well field protection, zoning, EIA.
1.2	Geophysical survey (VES, IP, well logging)
1.3	Well drilling methods and types, drilling supervision and <u>analysing lithology</u> , drilling penetration rate, rig action, <u>lithological logging</u> , well design, designing of gravel packing. Well problems and failure, well maintenance, camera inspection.
1.4	Water well design, completion and development. Based on drilling <u>lithological log</u> , time log, drilling action log and <u>geophysical logar</u> , <u>analyse and select</u> pipes and filter intervals, use of software for well design. Well assembly, lowering of assembly, <u>gravelpacking</u> . Development of well, compressor development and testing with air or overpumping
1.5	<u>Well Hydraulics:Testing</u> water wells for drawdown and yields, Converging flow, Cone of depression, Equilibrium well formula, non Equilibrium formula, multiple step drawdown test, aquifer performance test.



# **Training course in hydrogeology for 2013**

- 1- Groundwater investigations, Dr.Najaf**
- 2-Geophysical Investigations, Dr.Andreas**
- 3-Planning and Implementation of Provincial Hydrogeological Surveys, Dr.David**
- 4-Well Drilling methods, Dr.Andreas**
- 5- Well Hydraulics, Dr.Andreas**
- 6- Well Design, drilling methods and well construction Dr.Andreas**
- 7- Test Pumping and data interpretation ( in regional level/ Mazaar).Eng.Hassan(DACAAR)**
- 8-pumping test and well construction in Faryab Prov. (DACAAR)**
- 9- Well construction and pumping test(Universities student and junior hydrogeologists) DACAAR**

# On site practical training



**Let's put hands together for sustainable use  
of water resources of Afghanistan**

**Surfaces water**



**Groundwater**

**Thank you**