

Course Completion Report Application of GIS to Hydrogeology	Course 4.10	NORPLAN 
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1 CONTENT

- Course data
- Course objectives
- Training focus group
- Practical and theoretical work
- Course evaluation: comments from participants
- Recommendations for next or other courses

2 COURSE DATA:

Name of course:	Application of GIS to Hydrogeology
Number of participants:	14 trainees from: RuWatSIP, MEW, DACAAR
Location for training:	RuWatSIP Conference Room, MRRD
Date of implementation	23 – 25 June 2013
Course organiser	Andreas de Jong
Supporting presenters	Prof. Zarinkhail, Munir (MAIL), Hassan (DACAAR)

3 COURSE OBJECTIVES

The main objective of this course was to show using of GIS applications in technical field of Hydrogeology. Sharing experience and showing practical examples which were already used for this purpose was another objective. These examples made the training more interesting and used to show strength of GIS in technical field. Explanation on GIS concepts and use of GIS and MIS in Afghanistan Government planned in this course to let participants understand the general view on GIS and MIS usage in Afghanistan.

This training course was hoped to familiarize trainees with GIS concepts, let them understand importance of GIS to technical fields and instruct some methods of data management and usage in GIS.

4 TRAINING FOCUS GROUP

This training was planned to train hydrogeologist who are not GIS and data management experts but they need to GIS for organizing and implementing their activities. Currently, GIS is using in most organizations in Afghanistan water sector. Out of this, technical groups are in MRRD, MEW, DACAAR, and some other ministries and organizations. For the time being, the focus group for this training consisted from hydrogeologists in mentioned organizations. Two staffs from GIS-MIS Unit of RuWatSIP were added to the training focus group to use them as assistance for future trainings.

The focus group of the course was: 2 from DACAAR, 4 from MEW, 6 from RuWatSIP (Hydrogeologists and Hydro-physicians), 2 from GIS-MIS Unit.

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Photos from the training course below:



Prof. Zarinkhail introducing GIS concept to participants. Eng Abrar participating.



Many questions from participants. Quite a mixed group with very varying background knowledge to ArcGIS/



Hydrogeologist Hassan from DACAAR presenting examples how DACAAR use GIS in its work



Munir from MAIL outlines how GIS is used in government organizations. Benefits and challenges

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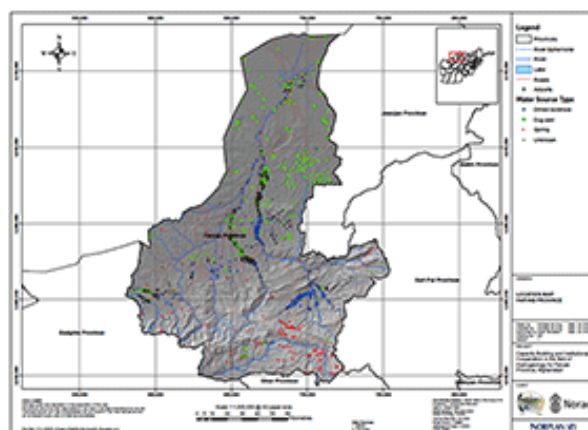
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Andreas de Jong presents GIS case examples from the region. Note all working on PCs for practical's.



Drafted template from hydrogeological map for use in Afghanistan

5 Practical and theoretical work

The course included practical sessions as well as presentation on theoretical terms of concepts. Practical activities were planned to be implemented by trainees direct in computers. For this purpose, 8 high speed laptop computers were prepared by NORPLAN office. A student version of ArcGIS latest version was installed and computers are well prepared with data that needed to be used during practical sessions. Besides, some of participants wanted to use their own machines and software was installed for them before starting practical sessions in course.

Three practical sessions conducted during 3 days of training. Participants were very eager to earn more knowledge and experience during practical sessions. Practical 1 related to preliminary activities in GIS, including formats and working with layers. Focus in practical 2 was on making location maps by trainees and using Hydrogeological tips and tricks in GIS. And in practical 3 remote sensing techniques and standards and Google Earth usage was explained and trainees worked to achieve the targeted topics in practice.

Theoretically, GIS concepts including GPS coordinate systems, usage and different types were presented. Use of GIS and data management in the Government of Afghanistan including challenges, pluses and minuses explained. Map examples from other existing systems presented. Examples from other countries and their approaches to using GIS in the field of Hydrogeology shared. A second software using by DACAAR for the same purpose explained and map and report productions from that system presented. In general, the theoretical part was also successful and it provided ideas and different approaches to use GIS in technical fields and resource management.

6 Course evaluation: comments from participants

The course evaluation is available on the web in full with comments. In summary the questions for evaluation were as follows:

Question 1: Did the training course meet your expectations? 1=Completely, 2=Partially, 3= Not at all,

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Response: Completely : 7%, Partially 79%, Not at all 14%.

Question 2: What do you think about the overall relevance of training course? Considering the limits on your time and the topics discussed? 1= Too Long, 2= Just right, 3 = Too short

Response: Too Long : 7%, Just right 43%, Too short 50%.

How the relevant was the training workshop to your organization or project's need?

1=Very relevant, 2 = Somewhat relevant, 3 = Not relevant

Question 3: How the relevant was the training workshop to your organization or project's need? 1= Very relevant, 2 = Somewhat relevant, 3 = Not relevant

Response: Very relevant: 57%, Somewhat relevant 43%, Not relevant 0%.

7 RECOMENDATIONS IF THE COURSE WAS TO BE REPEATED

1. The course duration of 3 days seems fine even most of participants wanted more time and longer period. It was recognised that any one of them who may need more trainings, they can attend other courses of GIS.
2. Making participants more interactive and ask them for their experience even a session can be scheduled for this.
3. Providing additional training materials and software to their computers was a plus to this course. A disk containing additional training materials included to participants for their future use.

Prepared by Prof. Zarikhail, Norplan, Jun 2013