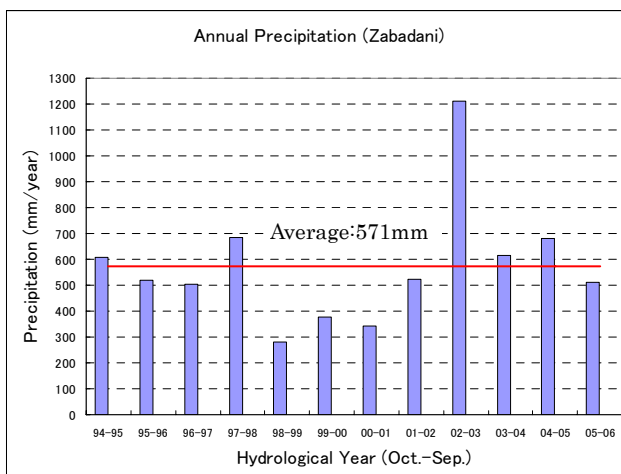




WRIC News Letter January 2007

1. Rainfall in Barada-Awaj basin this winter

This winter, especially in Barada-Awaj basin, it seems very dry so far. For instance, according to the observation data of precipitation in Zabadani observatory which is located in the upstream area of Barada River which runs through Damascus city, total amount of precipitation in the period of Oct.06-Jan.07 is only 28%-51% of the corresponding amount in the same period of previous years from 2002 to 2006 (refer to Graph-2). In the previous years of 03/04, 04/05 and 05/06, annual amount of precipitation was average level as shown in Graph-1, which has even caused considerably long suspension of water supply in night time in Damascus city for about 7 months in 2006. Therefore, if this situation of very small precipitation continues in this winter, the year of 2007 is likely to be much worse than last year in terms of water supply, groundwater level, and so on. These observation data are warning of more serious shortage of water this year.

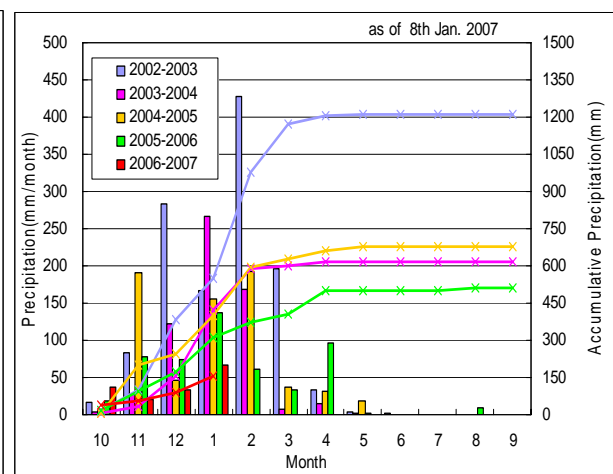


Graph-1 Annual Precipitation in Zabadani

*Data source

94-95 to 01-02: MOAA manual observatory

02-03 to 05-06: WRIC automatic observatory



Graph-2 Monthly Precipitation from 2002-Jan.2007 (as of Jan.27th) in Zabadani

*Data source: WRIC automatic observatory

2. Workshop of groundwater modeling with GMS

Workshop of groundwater modeling was held on Jan.11th in the meeting room of DRD WRIC Center. The main purpose of the workshop was to select the trainees of the groundwater modeling training course in Egypt, which is going to be held at the Hydraulic Research Institute (HRI), Egypt from Feb.10th to Mach 1st 2007.

WRIC has already established very close and cooperative relationship



with Egyptian government organizations in water sector, especially with HRI. Thanks to the cooperation with HRI, 3 weeks of system management training course (computer network) was conducted very successfully in July 2005. Following the last training course, WRIC and HRI have considered the further possibility of cooperation, and the groundwater modeling course was formulated subsequently. As already reported in the WRIC Newsletter last month, Syrian counterparts have conducted water balance analysis by using the Synthetic Storage Model (SSM), thus MODFLOW is the next step to do more detailed analysis of the groundwater movement. In this course, therefore, we focus on the technical transfer of hydrological analysis of groundwater movement by utilizing GMS, which is one of the most popular package application software mainly for MODFLOW.

As for this training course, not only the theoretical lecture of groundwater analysis with MODFLOW, but also the hands-on practical training by using the actual input data in Syria will be conducted. The trainees are required to be considerably familiar with the groundwater modeling, and to prepare the necessary data in Syria for GMS analysis in advance of the training course, which is touch task for them. In this workshop, therefore, counterparts who want to participate in this training course made their presentations about the case studies of modeling by using GMS, which should be developed in the training course in Egypt. After their presentations, Japanese experts evaluated them according to the following points of view and criteria.



Presentation by the candidates in the workshop

Criteria of Evaluation

<i>Criteria</i>	<i>Description</i>
<i>Contribution in the past</i>	<i>Contribution to the modeling activities at WRIC in the past two years.</i>
<i>Technical Level</i>	<i>Technical skill, knowledge and quality of the modeling which is presented at the workshop.</i>
<i>Relevance and Effectiveness</i>	<i>Relevance of the topics and assumptions chosen for the modeling, in terms of the critical water issues in Syria. Effectiveness of the modeling for the future decision making.</i>

In the result, five counterparts were selected for the training course, as shown below. We hope that this training course will be effective and fruitful for the advanced capacity development of groundwater analysis in WRIC.

**Five Syrian participants of the training course*

Eng. Kassem Nattouf (Director / WRIC DRD Center)

Eng. Ali Assad (Director / WRIC Tartus Center)



Eng. Mazen Naaman (Manager of Analysis section/ WRIC Lattakia Center)

Eng. Hiam Al-Ashkr (Analysis Section / WRIC Main Center)

Eng. Samir Houssein (C&C Section / WRIC Tartus Center)

3. Installation of automatic snowfall observation equipment

Total 4 sites of automatic snowfall observation equipment were installed in Barada-Awaj and Coastal basin. In Syria, especially in Barada-Awaj basin, snowfall is significantly important factor for the groundwater recharge. Therefore, the measurement of snow depth is indispensable to understand the actual hydrological situation in these basins, and to evaluate more accurately the recharge amount of aquifer.

The equipment is laser-scanning type of snow depth gauge, which can obtain the observation data every hour. This time, 3 sites in Barada-Awaj basin and 1 site in Coastal basin were installed respectively in Dec. 2006 and the observation was launched. This winter is, especially in Barada-Awaj basin, considerably dry and warm unfortunately. Therefore snow depth has been hardly observed so far by the new equipment. Continuation of observation, however, will contribute in future to the comprehension of the hydrological process of snowfall, melting, infiltration and recharge of groundwater.



AWS and snowfall gauge at Arneh, Barada-Awaj basin

4. Jordanian official visited WRIC

Eng. Othman A. Al-Kurdi, Director of Finance and Projects Follow up Administration of Ministry of Water and Irrigation in Jordanian, visited WRIC on Jan. 17th, to review our activities and to make a discussion about the possibility of the further cooperation between Syrian and Jordan water sector. In this discussion, participation and presentation by Jordanian officials in the 5th Syrian-Japanese Water Symposium was proposed and basically agreed. Moreover the possibility of cooperation in the field of technical training among WRIC, Jordanian side and other neighboring countries (e.g. Third Country Training Course of JICA) was also talked, and both sides agreed to give positive consideration to the matter.

(End)

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