



WRIC News Letter

September 2006

1. Joint Coordinate Committee was held

Joint Coordinate Committee (JCC) of WRIC project was held on August 31st. This time, main topics were the regular reports such as the Water Resources Report (WRR) and monthly reports, and the dataflow of observation data in WRIC.

As for the WRR, the text of Arabic draft of the second edition was prepared by Syrian C/Ps as well as the English translation. Unfortunately, many of the necessary graphs and maps have not been prepared yet. According to the explanation of Dr. Bacher, director of WRIC, the main theme of the second edition of WRR is the water balance in Barada-Awaji basin, which was calculated with Synthetic Storage Model (SSM) last year. At the same time, in accordance with the latest observation data, some graphs and maps summarizing meteorological and hydrological situation in BAB and CB are now being revised. The missing graphs and maps should be prepared as soon as possible, and after the review by the JCC members including both Syrian and Japanese sides, the draft will be revised again to reflect their recommendations and suggestions.

Another important regular report is the monthly report of observation data, which is to be issued by each local center of WRIC in DRD and Lattakia. In March 2006, the form and style of the report was revised, to deal with the data from the observation stations granted by Japanese government in March 2005. Now each local center of WRIC has tried to issue the monthly report regularly. This report is one of the most important outputs of WRIC, to provide decision makers with the water resources information which is necessary for policy making of the appropriate water resources management in Syria.

Concerning the dataflow of WRIC, Mr. Mori, Mr. Suzuki and Mr. Kato made presentations. Mr. Mori explained the current situation of data





availability in WRIC Main Center (WRIC MC) database. The rate of data availability is unfortunately quite lower than our target rate of 95% or 80%. The rate of newly installed automatic observation stations is, especially, around 50%. This is a very serious problem, because the automatic stations granted by Japanese government were expected to be the core observatories in BAB and CB, which should be fully functioning at this moment. Mr. Mori, chief advisor of WRIC, proposed the dataflow monitoring system as well as the deadline for data processing and uploading to WRIC MC, which was approved by JCC members. According to the proposal, the deadline should be three months after the observation month. For instance, the data in August should be available in WRIC MC database by 31st of Nov. For the time being, this deadline will be enforced only for the automatic meteorological stations (AWS and rainfall gauge) and all the manual stations belonging to MOI. As for the other observation items such as surface water and groundwater, it also would be enhanced step by step, in accordance with the Syrian C/Ps' capacity development.

In summary, as the result of the JCC, we concluded the following matters. According to the conclusion, especially, Syrian side should implement the commitment from now on.

- The Arabic draft of WRR including all the necessary maps and graphs should be prepared by Sep. 14th. It should include recommendation of Project improvement to the D.G. of GCWR. Following the preparation of the Arabic draft, the English translation and review by Japanese experts will be conducted.
- The specific schedule of new MOI H.Q. building construction in Harasta is not clear, although MOI is making effort to finalize the construction as soon as possible.
- Concerning the monthly meeting with D.G. of GCWR and other local directorates, in order to report the monitoring form of database, it should be launched from October 2006.
- Concerning the surface water observation stations, the specific time schedule of improvement of stations, especially to fix and improve the cross section of river bed, should be prepared by Syrian side and handed to Japanese experts. Based on the time schedule, the improvement work should be conducted one by one, hopefully before the coming rainy season.
- The biweekly meeting with D.G. of GCWR and WRIC directors will



be continued to enhance the activities.

2. Hydrological Analysis in the Coastal Basin

From August 20th, Mr. Ota moved from Damascus to Lattakia in order to enhance the establishment of SSM in Coastal Basin (CB). In CB, the preparation of SSM had been delayed and there is no SSM model for whole CB so far. This is because they do not have enough water resources information (observation data, socio-economical data and so on) and this is the first trial to deal with SSM in CB. To overcome this difficulty, Mr. Ota have stayed in Lattakia for about 1.5 months to make the intensive technical transfer of SSM modeling for the staff in Lattakia and Tartus Center.

Concerning to the Modeling work process, first of all, meteorological and hydrological observation data should be collected and arranged for the SSM program as the input data files. Moreover, various kinds of parameters, which consist of tank structure must be calculated and examined to create initial file of the SSM program as shown in next Figure-2 “SSM Modeling Process Flow”.

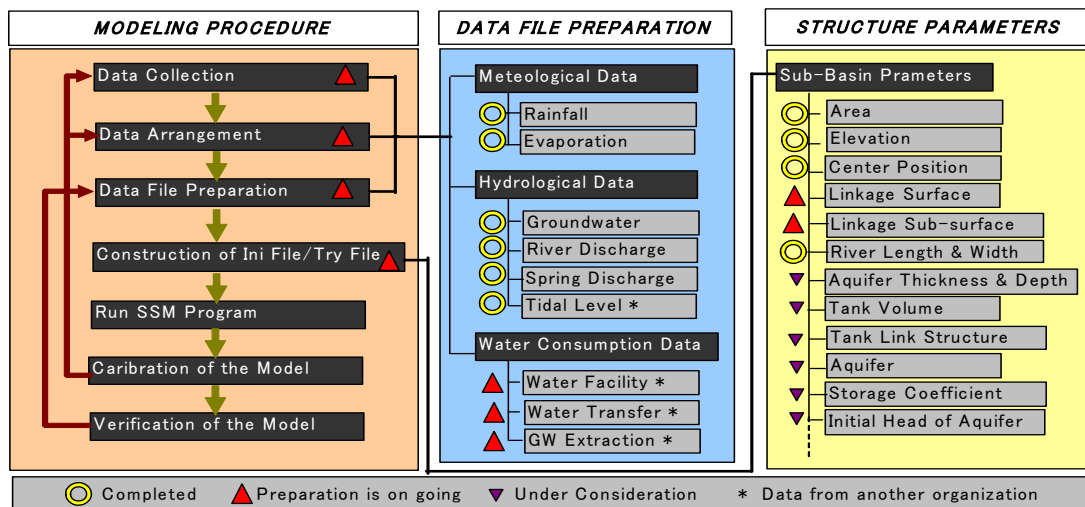


Figure-2 SSM Modeling Process Flow and Current Progress

Within this one month (as of 20th September), meteorological and hydrological data was already compiled, except water usage data for domestic, irrigation and industries, and currently many kinds of parameters for the tank structure are still working on. Regarding to the water use data, it is required at least historical 15 years data of the amount and also the water transportation from each water sources.

As a matter of course, there are many difficulties to prepare of such



data and information with certain accuracy in this stage. However, the prioritized target within a limited time is the understanding of C/P for the process of model analyzing. And sufficiently accurate model analyzing will be hopefully done by their self-effort of the Syrian side in the near future after the accurate data are ready enough.

3. Site Check of Surface Water Stations in DRD

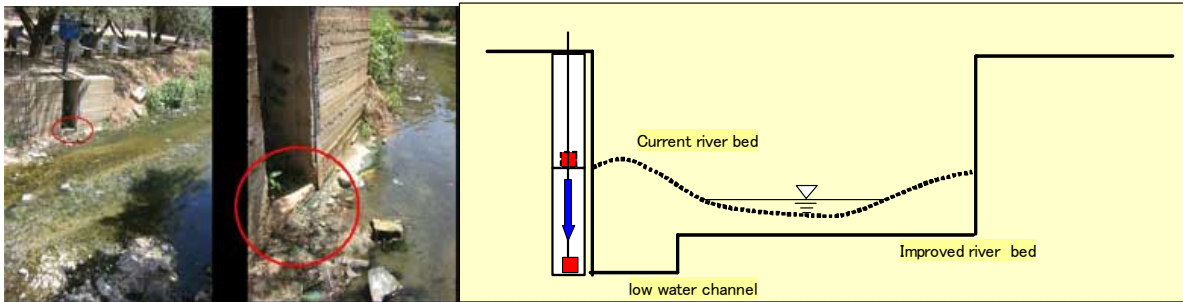
Surface water observation (water stage) are very important to obtain the water stage data of rivers and springs, which are utilized for many purposes such as the policy making of water resources management, hydrological analysis, the design of water supply and waste water management system, the design of hydraulic facilities and so on.

To enhance the observation, Japanese government granted total 34 stations of automatic observation equipment for the surface water observation in Barada-Awaji Basin in March 2005. In most of the stations, however, we found that there are many problems which hamper the accurate observation. Therefore, in September 2006, Mr. Mori, Chief Advisor of WRIC and the Syrian C/Ps conducted the site visit of all the 34 surface water stations in Barada-Awaji Basin to find the actual situation and problems.

As the result of the site visit, some problems were found in almost all the stations. Typical problems and recommendations are following. These problems, however, were found as of September 2006, in the summer season. In some case, other problems may happen in other season, in accordance with the change of hydrological conditions such as the water discharge at the stations. Therefore, the regular check of the site should be continued in every month.

1) Cross section of river bed

In summer season, generally, the water stage is quite low. Therefore, in some stations, the water does not flow around the stations and consequently the measurement of water stage is not being conducted at all. Basically, a low water channel should be installed to measure the low water stage accurately and continuously in summer.



2) Staff gauge

Staff gauge is the most important equipment for a surface water station. A staff gauge provides us with the most reliable water stage, and the digital data observed with a sensor should always be compared with the manual observation data by a staff gauge. In case that staff gauge is missing or badly damaged, it should be installed again.

3) Bench marks on the observation bridge

In all the stations, there is an observation bridge for the current measurement. However the bench marks for the current measurement are not clearly identified. Some marks are found to be painted or scratched on the bridge fence in the impermanent and inappropriate way. Bench marks, which are preferably made of metal, should be fixed on the observation bridge.

4) Cleaning of river bed

In some stations, much sedimentation and garbage were found on the river bed, which may hampers the river water flow as well as the accuracy of H-Q curve (rating curve) of the station. Periodical cleaning is necessary basically. At the same time, if the field observation staff finds the some problems on the river beds, he should report this matter to the person in charge and cleaning should be done immediately.

5) Cleaning of stations

Sedimentation of sand, Garbage and grass etc around the sensor affect the water flow around the sensor, which sometimes block the water completely. It is a big obstacle for the accurate and continuous observation. Periodical cleaning is necessary basically. At the same time, if the field observation staff finds the some problems around the sensor, he should report this matter to the person in charge and cleaning should be done immediately.

6) Necessity of automatic observation



Some stations in the downstream of rivers have been completely dried up in past more than two years. In such stations, automatic observation seems unnecessary for the time being. Therefore, if there is no water even in winter, automatic observation should be stopped and changed to the manual observation. The sensors and data loggers should be withdrawn and stored in the warehouse for the spare parts of other stations.

7) Sensor installation

In some stations, sensor installation is not done appropriately. For example, sensor or sensor code is outside of the protection pipe, which is very dangerous situation in terms of protection of equipment. Sensor should be installed again appropriately.

8) Sensor Calibration

In some stations, we found a obvious error of the digital data observed with sensor. Reconfirmation and calibration is necessary.

4. C2C Workshop in August

In accordance with our annual schedule of C2C Workshops, two courses of training were conducted by Syrian C/Ps. One is the workshop of Network Installation at Water Resources Directorate of Badia (WRDB) in Homs by Eng. Yahia and Eng. Ziad. The other is the workshop of GIS operation conducted by Eng. Mandouf at General Company for Hydraulic Study (GCHS) in Homs.

At both of workshops, the staff in WRDB and GCHS joined the training courses respectively, which would be useful for their future activities to extend WRIC activities to whole Syria. In WRDB, especially, three rooms have been already prepared and total 6 of engineers have been assigned to this center. There are now only three computers and a few printers in the rooms. However, the equipment as well as the human resources would be hopefully enhanced in near future to establish the WRIC local center in Homs.

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