Improving Sustainable Groundwater Management of the Lower Valley of Medjerda Bassin

SMART_IWRM Medjerda
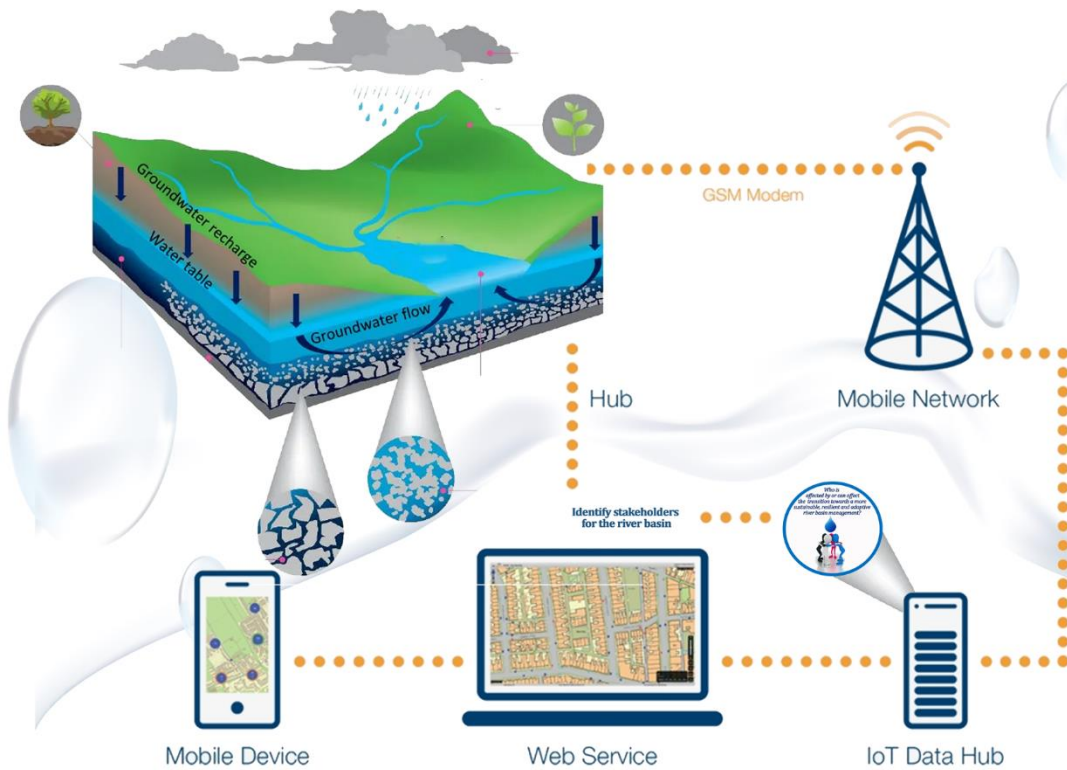
Newsletter # 01

April 2019

Improving Sustainable Groundwater Management of the Lower valley of Medjerda Bassin

PEER Program Cycle 7 (NAS_USAID)

Newsletter Topics

Topic: Intensive workshop in the data management using Machine Learning Models

Intensive workshop in the data management using Machine Learning Models

💧 **Event Title:** Intensive Training Course "Data management using Machine Learning models (flood, groundwater...)"

💧 **Event Organizer :** PEER_ESIM

💧 **Event Dates** : 10 &11 April 2019

💧 **Participant Description:** PhD and Engineers students, Engineers from General Direction of water resources *(DGRE)* and the Regional Commissariat agricultural development *(CRDA Manouba)* , Engineers from the National Mapping and Remote Sensing Center *(CNCT)*, Engineers from the Regional Remote Sensing Center for North African States *(CRTEAN)*, researcher from the National Research Institute of rural engineering, Water and Forests *(INRGREF)*.

💧 **Event Description :** During this training, Pr. Saro Lee an expert from "Korea Institute of Geoscience and Mineral Resources *(KIGAM)*" and proffessor in "Korea University of Science and Technology" in GIS has presented a theoretical advanced training and practical exercises on the application of **Machine Learning Algorithms** on the **water data management** using **ARCGIS, Weka SAGA GIS** & SPSS Software.

SMART_IWRM_Medjerda Project

SMART_IWRM_Medjerda

"Improving Sustainable Groundwater Management of the Lower valley of Medjerda basin" is the Research & Development project funded by the [PEER cycle 7 program](#) (NAS_USAID) and led by the [Higher School of Engineers of Medjez El Bab (ESIM)](#) and the [U.S. Geological Survey USGS](#).

PEER program (NAS_USAID)

[The Partnerships for Enhanced Engagement in Research (PEER) program](#) is a competitive awards program that invites scientists in developing countries to apply for funds to support research and capacity-building activities on topics of importance to USAID and conducted in partnership with U.S. Government (USG)-funded and selected private sector partners. The program is supported by [USAID](#) but implemented by the [U.S. NAS](#).

Specific Objectives

SMART_IWRM_Medjerda project aims to support groundwater resources management of the Lower valley of Medjerda River basin based on IWRM principles through three main pillars :

- Overall initial assessment of groundwater resources availability and quality
- Data management & Numerical simulation of water resources
- Capacity Development

Expected Results

- Implementation of a **smart water monitoring system using IoT platform**
- Development of a **GIS modelling platform based decision support system tool (DSS)** that can be used by managers in water-resource decision making.
- Improve **capacity building** of water stakeholders and **empowering women role** in water sector