

# ALTOS

**Managing water resources within Mediterranean agrosystems by accounting for spatial structures and connectivities.**

**WP3: Simulating fluxes and storages for different scenarios of structure modulations**

**Task 4.2 : : impact assessment and scenario ranking (leader: INRGREF).**

**CERTE contribution**



# Impact of upstream land use and climate forcing on the downstream aquifer recharge within Cap Bon



## Goals:

- Geologic characterization of Dam and aquifer recharge
- 3-D aquifer characterization
- Quantification of Dam infiltration for aquifer
- Modeling aquifer recharge according to the land use scenarios of Lebna watershed up stream using SWAT and MODFLOW

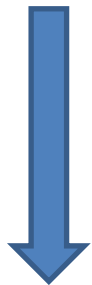
Team: **Master**

Period: 2021-2022

## Methodology

Up Stream

Scenario of land use SWAT

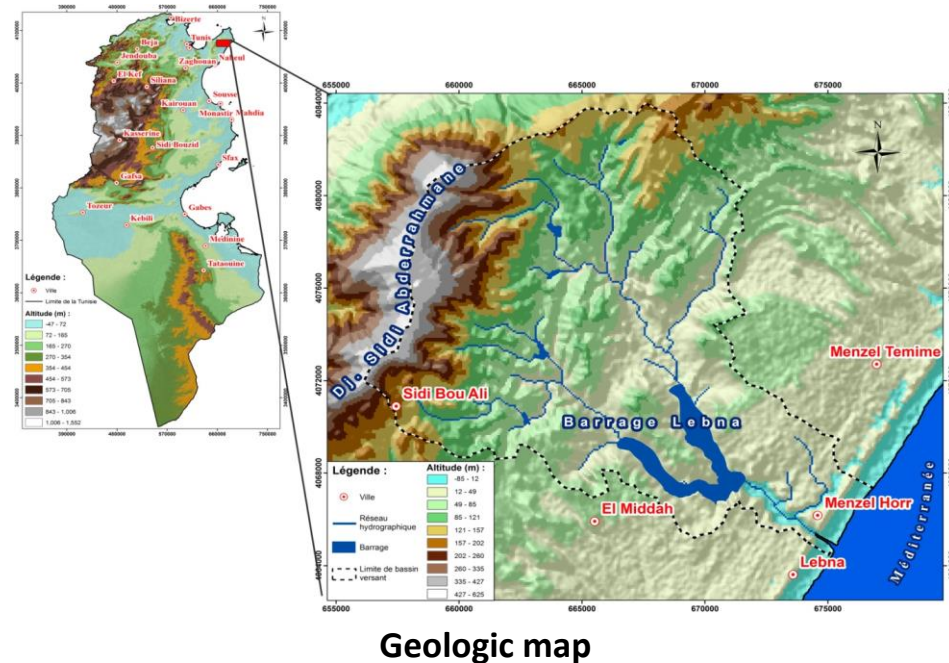


Up Stream /  
Down Stream

Down Stream

Scenario of dam-aquifer recharge  
MODFLOW

Geophysics, Dam budget, Isotopic  
groundwater monitoring



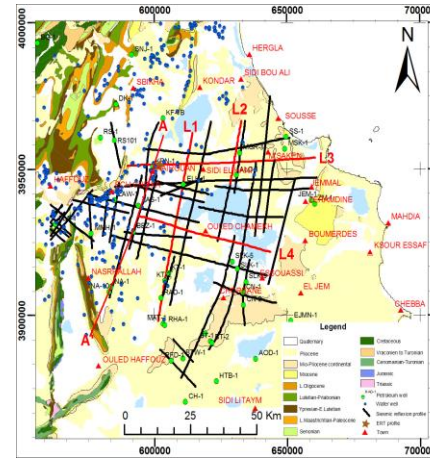
Partnership ??? : INRGREF, LISAH and CERTE

Project: LMI-NAILA (Axe 2 and transversal action)  
Aquifer recharge, LGR, CERTE

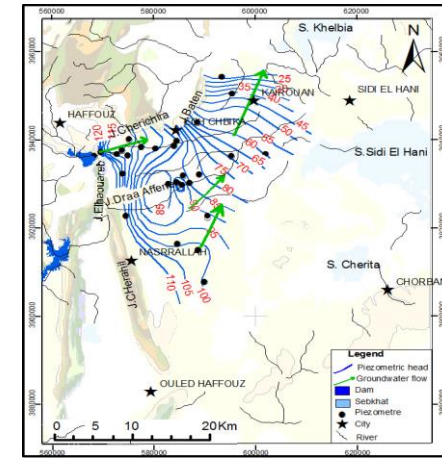
# SWAT and WEAP simulations for land use / irrigation / bench modulation scenarios within Merguellil

## CERTE contribution:

- Geologic and 3D aquifer characterization
- integrated and sustainable water resources management (WEAP);
- Modeling land use scenarios / aquifer recharge using SWAT and WEAP

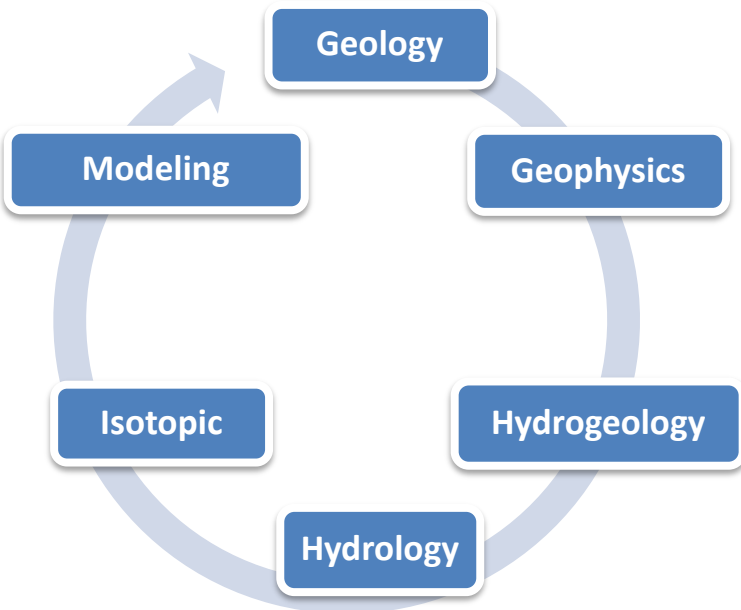


Geophysics data and geologic map



Piezometric map

## Methodology



Team: **Master**

Period: 2021-2022

Partnership: INAT, CESBIO and CERTE

Project: Aquifer recharge, LGR, CERTE