



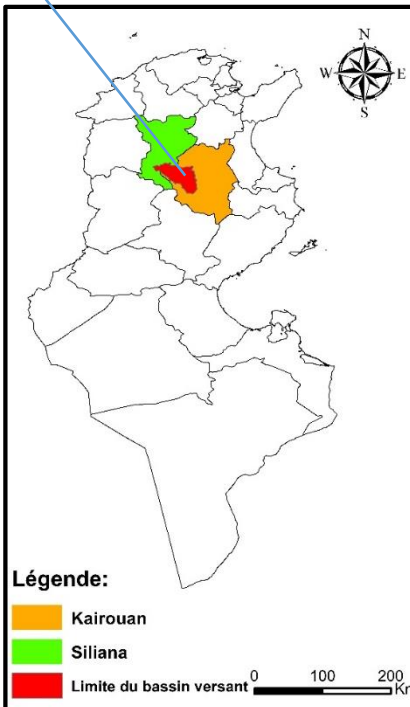
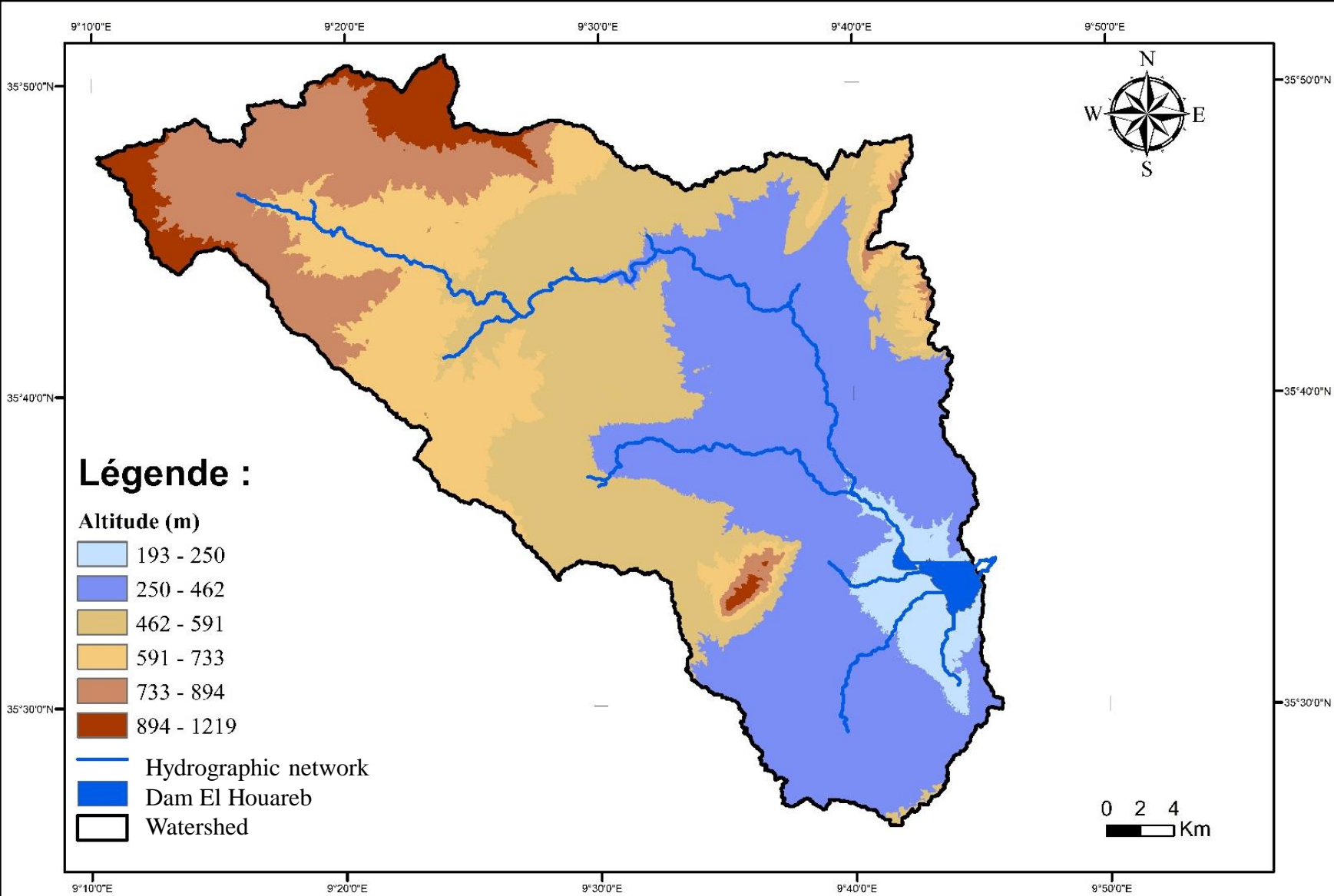
## **Task 4.1: designing scenarios (leader: UCAM)**

PI : Aouissi Jalel

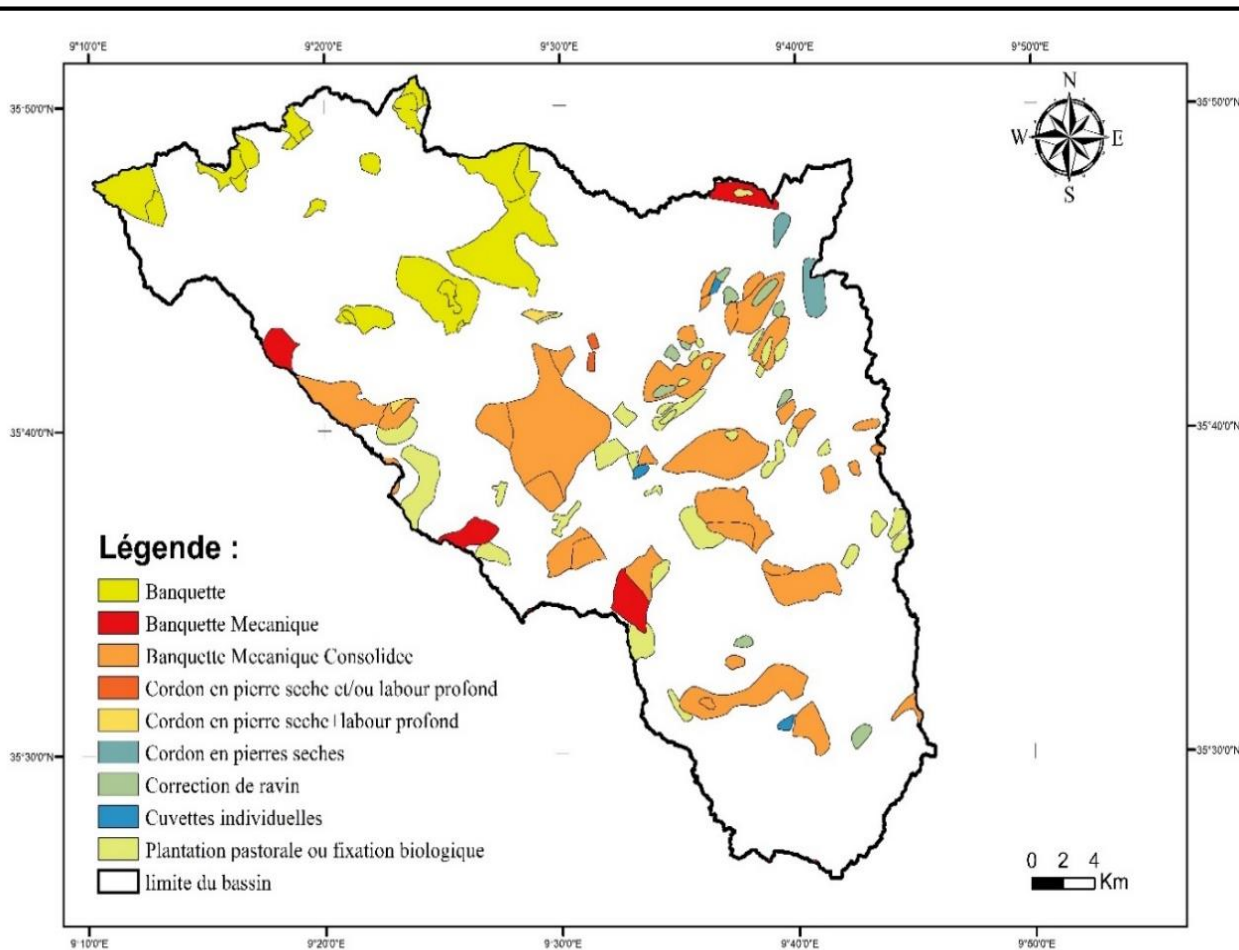
Zohra Lili Chabaane, Sihem Benabdallah, Zeineib Kassouk, Ines Oueslati, Hanene Chaabane, Adel Zghibi

Bench modulation within upstream Merguellil, to be designed via participative seminars with stakeholders.

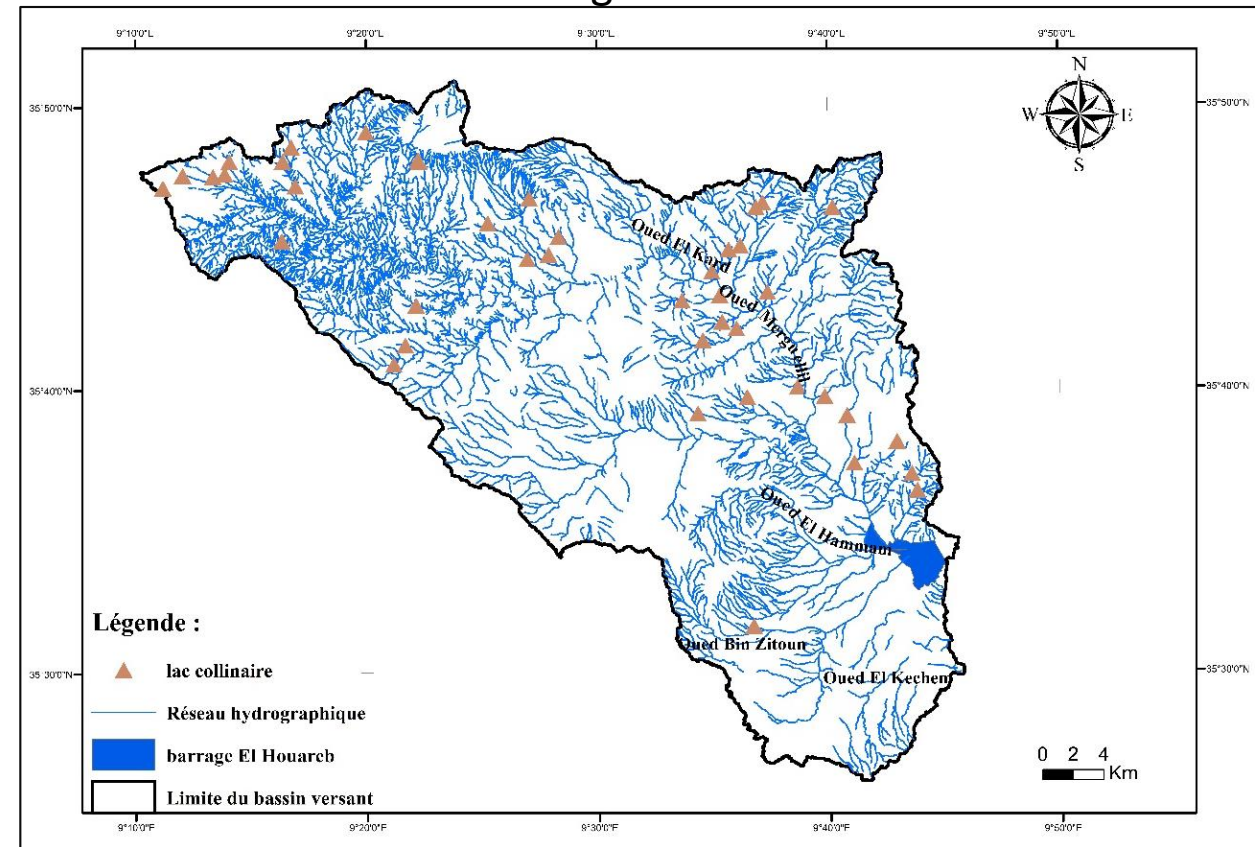
Study area : Upstream Merguellil (Area = 1200 km<sup>2</sup>)



## Soil Water Conservation Works (SWCWs)

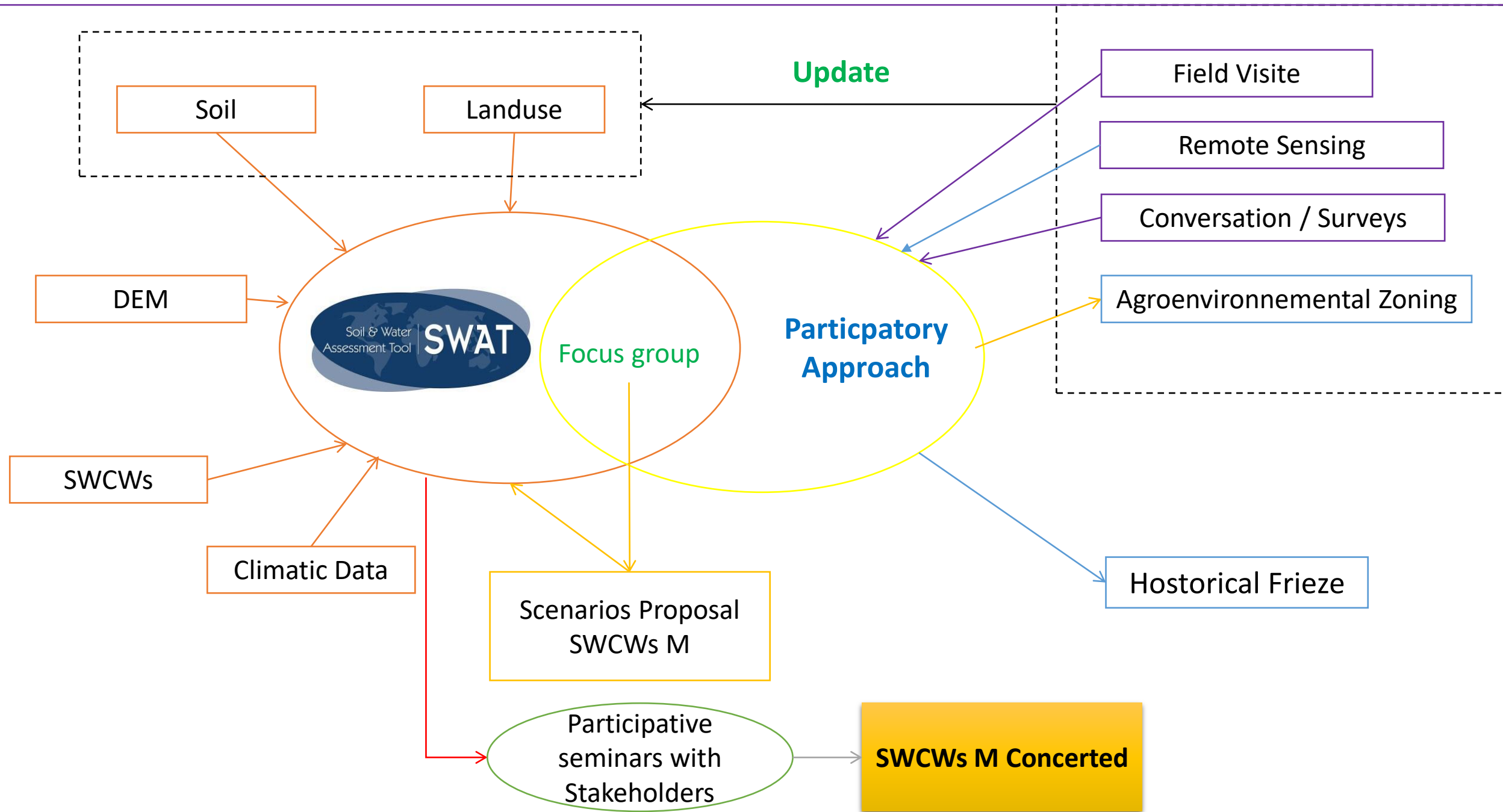


## Pond in the Merguellil Watershed



# Task 4.1

# Designing scenarios for an Agro-hydrological modelling



- climate scenarios
- Construction a precipitation dataset scenarios input (WP1: Climate variability) ➔ to be used for SWAT model on the upstream part of the Merguellil basin
- Possibility to Study of climate change uncertainty on flow and sediment yield

 **Collaboration with Julie Carreau from HSM**

- Scenarios of spatial structure modulations (Landuse)

Land use change scenarios for an agro-hydrological model

- Change from rainfed to irrigated land (due to climate change) (Historic and multi temporal Land-use maps)
- Difference case of agroforestry area augmentation (olive trees extension) and non agroforestry system (only market crops) or only cereals (seasonal and interannual Land-use map)
- mutation to agroecologic practices ( living the soil on not till) or Minimum tillage (tillage map and period);
- All scenarios will be approved within the stakeholder workshop

Workforce:

**PhD student : Ines Gharnouki started in February 2020**

**Contract engineering in process**

**Study area Merguellil**