



Concept Note
On
Improved Water Allocation for Agriculture

Tunisia Team

26/09/2022

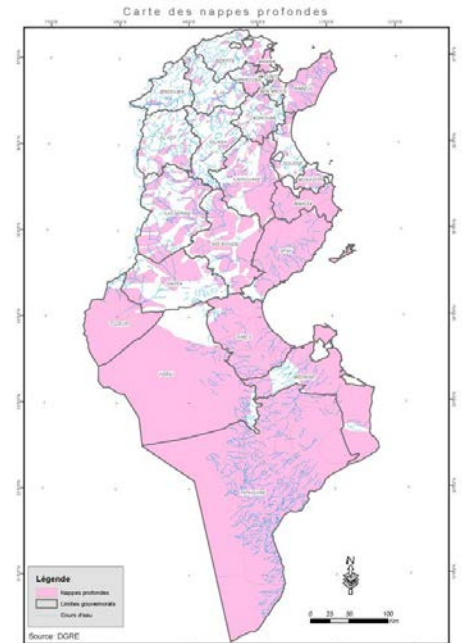
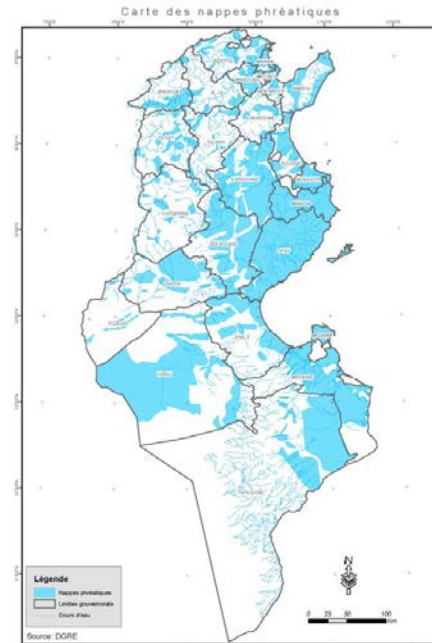
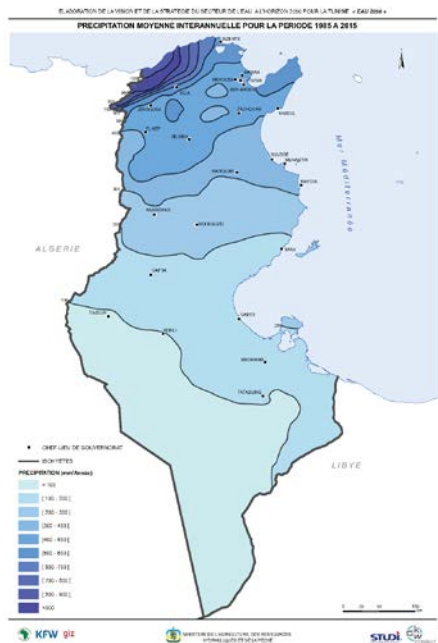
Introduction

Climate: **Mediterranean** climate in the **north** and a **desert** climate in the **south**

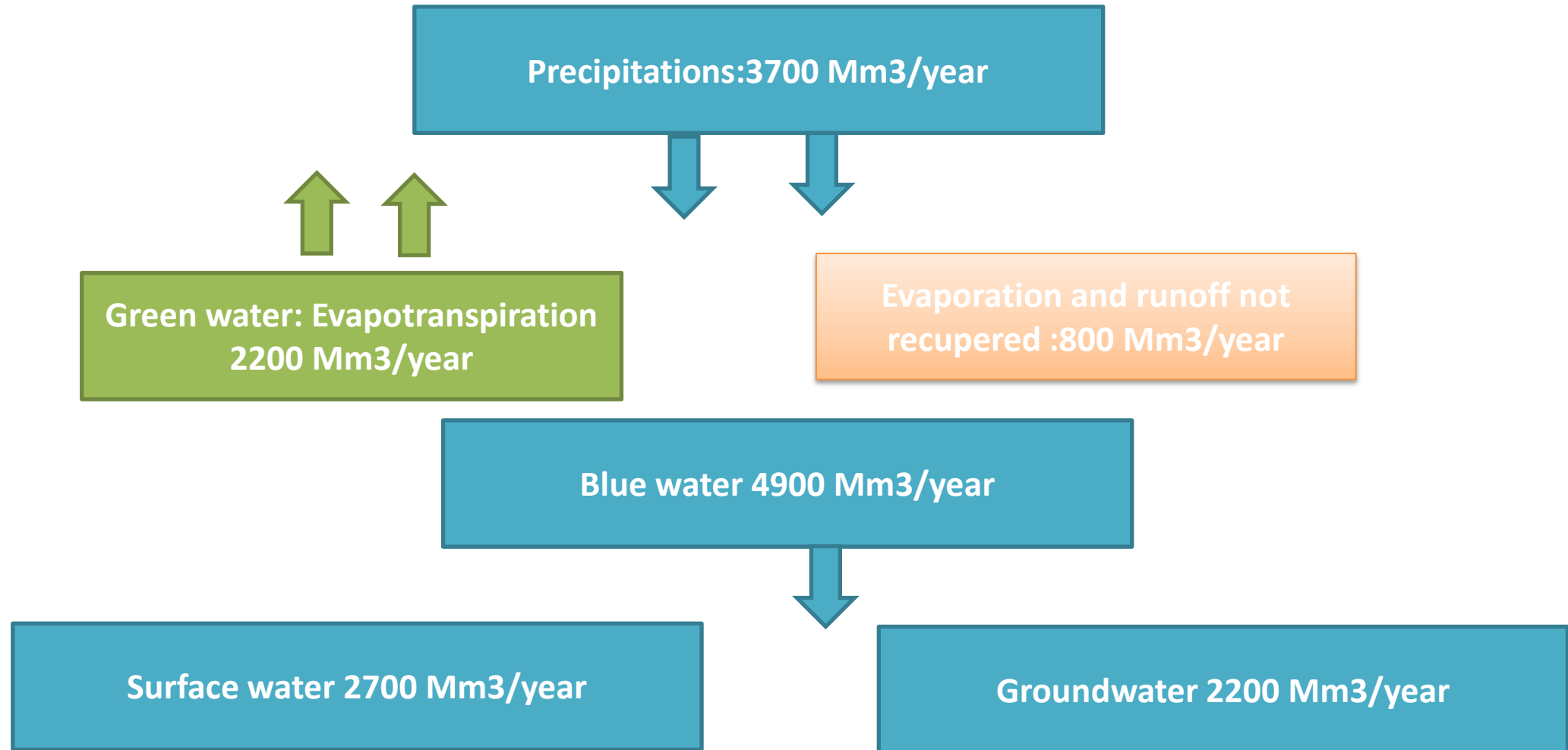
Average Annual precipitation: **230** mm/year

Surface water : **North** have **60%** of the country's total water potential, the **South** have **23%** and the **Centre** have only **17%** of the potential

Groundwater: **South** and **centre** of Tunisia have the most important potential of water



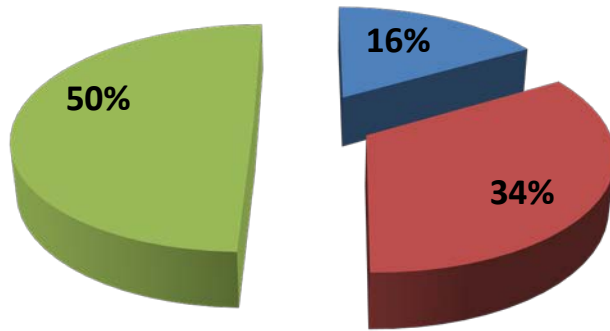
Water Resources



Source (water 2050)

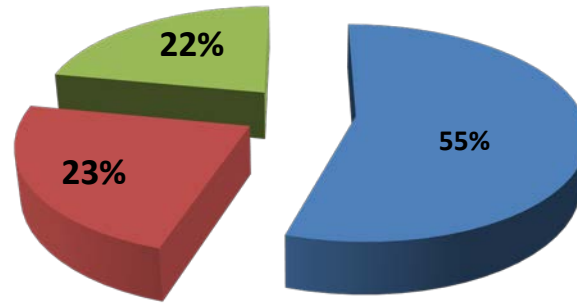
Water Resources

Shallow Aquifer (746 Mm3)



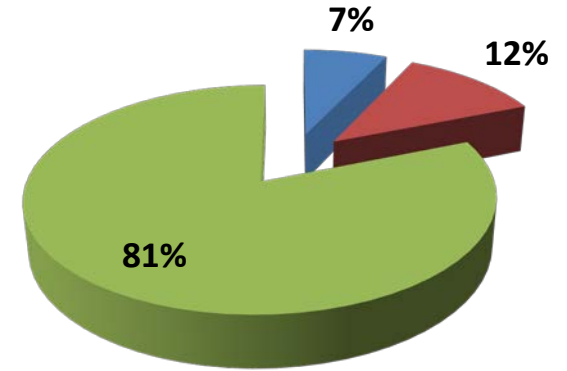
■ South ■ Centre ■ North

Deep groundwater(1429 Mm3)

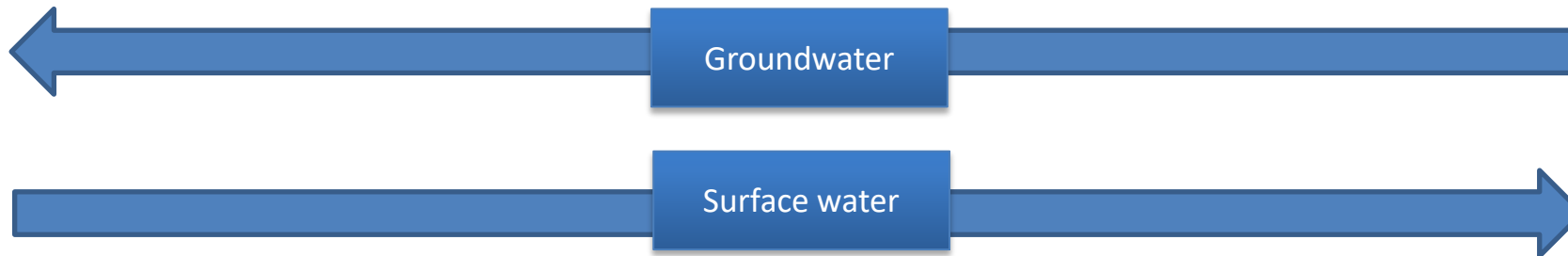


■ South ■ Centre ■ North

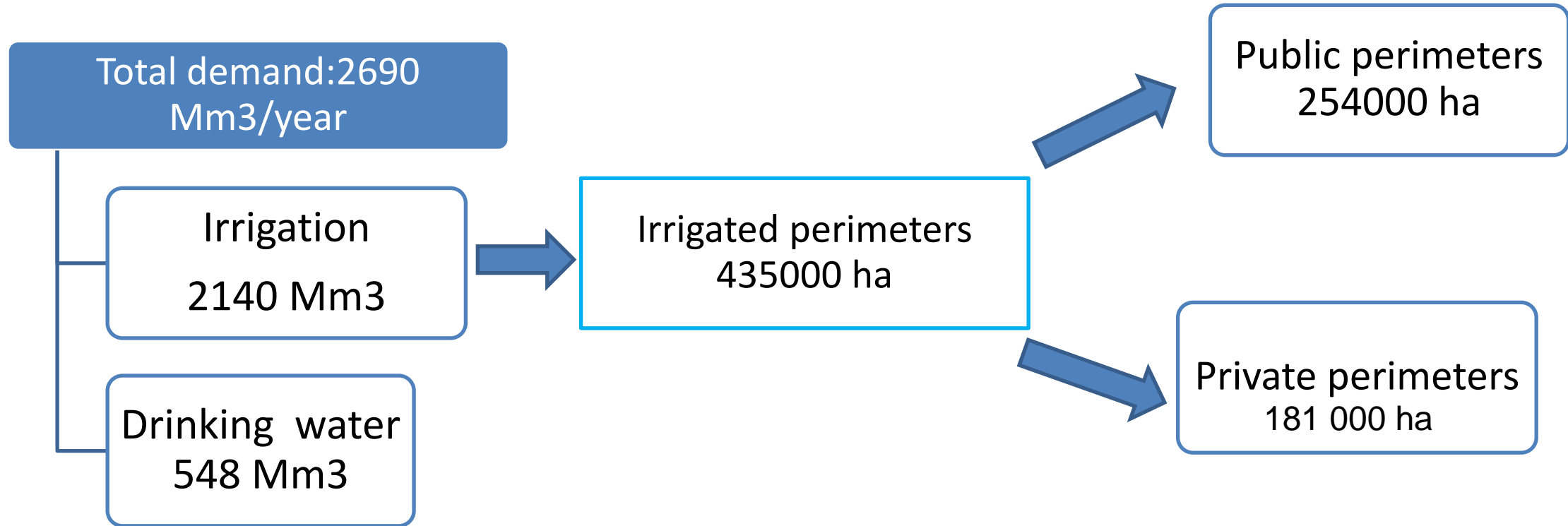
Surface water(2700 Mm3)



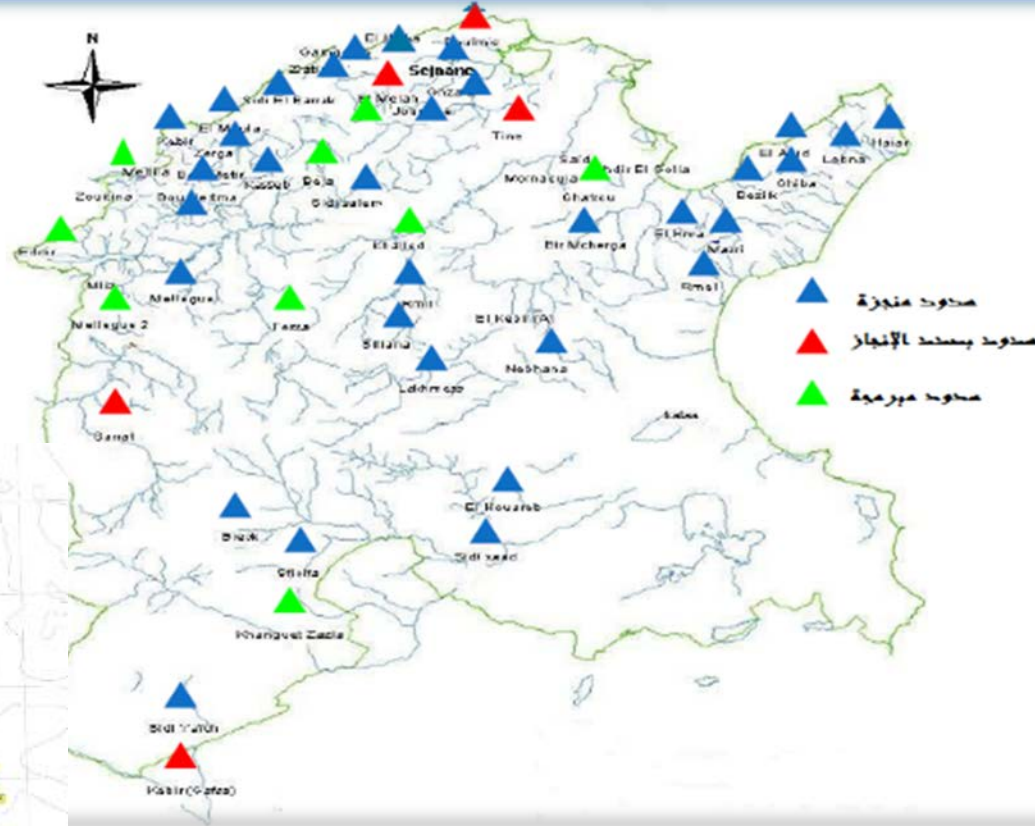
■ South ■ Centre ■ North



Water Demand



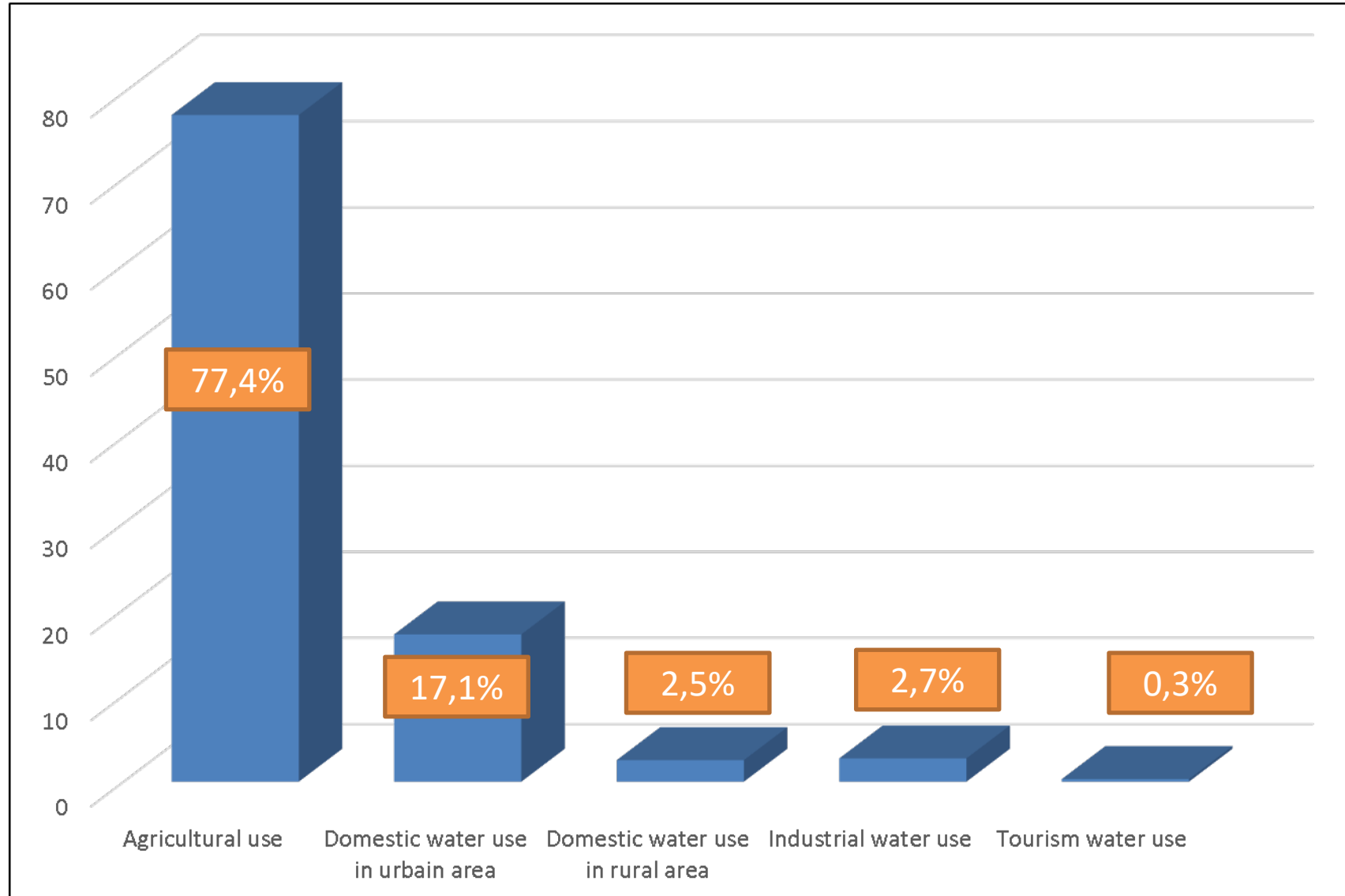
Water Infrastructures



- 35 Big dams (2,2 00 Mm³)
- 234 Small dams (285 Mm³)
- 909 lakes (95 Mm³)
- + 150000 wells in shallow aquifer
- +21000 Deep boreholes
- +120 plant waste water treatment
- Complex transfert axes

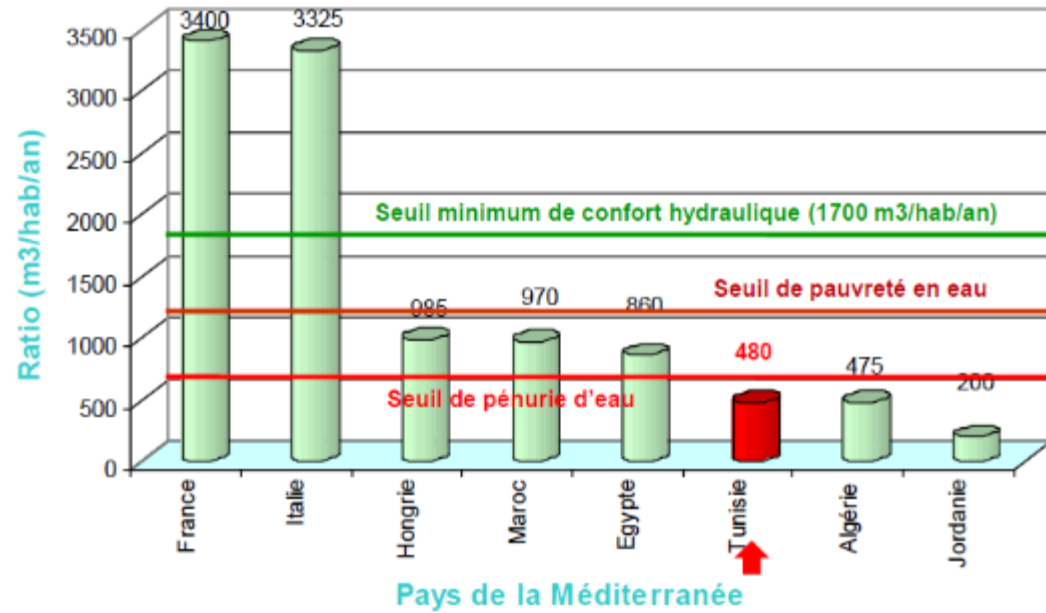


Water use pattern

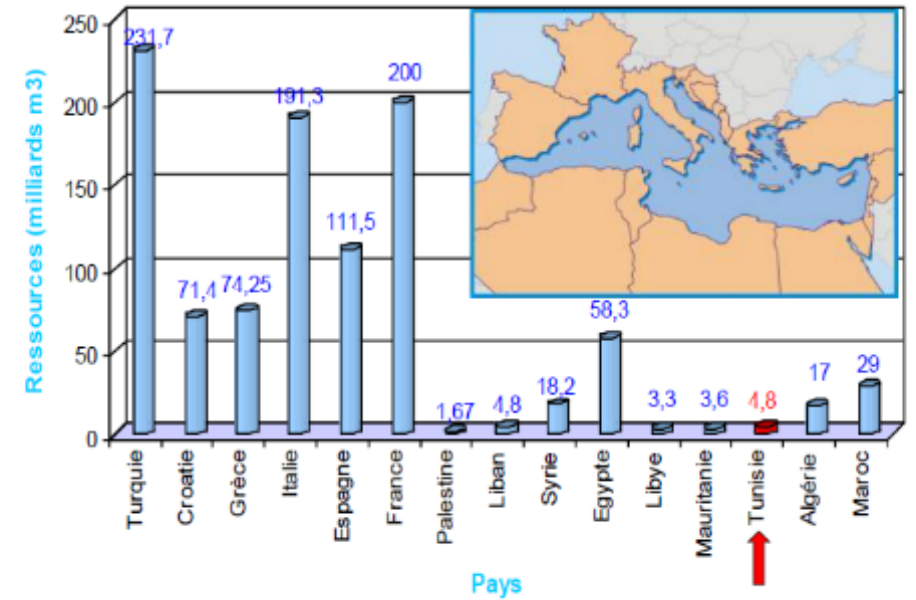


Current Water Situation

Ratio en m³/hab/an de quelques pays méditerranéens



Situation de la Tunisie dans son contexte Méditerranéen et Maghrébin en matière de Ressources en eau



First National Water Resources Mobilization Strategy (1990-2000)

Mobilization of 85% of the water resources potential
drilling boreholes and improves monitoring networks
Results: Creation of 21 dams, 203 small dams and 580 lakes

Second National Water Resources Mobilization Strategy (2002-2011):

Objective:

Mobilization 90% of the water resources potential
Improve drinking water quality (less than 1,5 g/l)

Results: the construction of 11 dams and 50 small dams

Interconnection of the dams in the north

Improve water quality and ensure water supply of Tunis city and the major coastal cities

New strategy for water resources mobilization and protection (2016)

Mobilizing 90% of the water resources potential

Drilling borehole's, finish the interconnection program of dams

Actions: integrated water resources management

Climate change adaptation

Securing access to drinking water and irrigation,

Interconnection of North and Central Dams for the operation of excess surface water in excess years,

Desalination of brackish and sea waters: coastal and southern Tunisian areas.

Tunisia's water strategy 2030

Mobilize water resources

the use of unconventional resources

Policy of water conservation and pollution

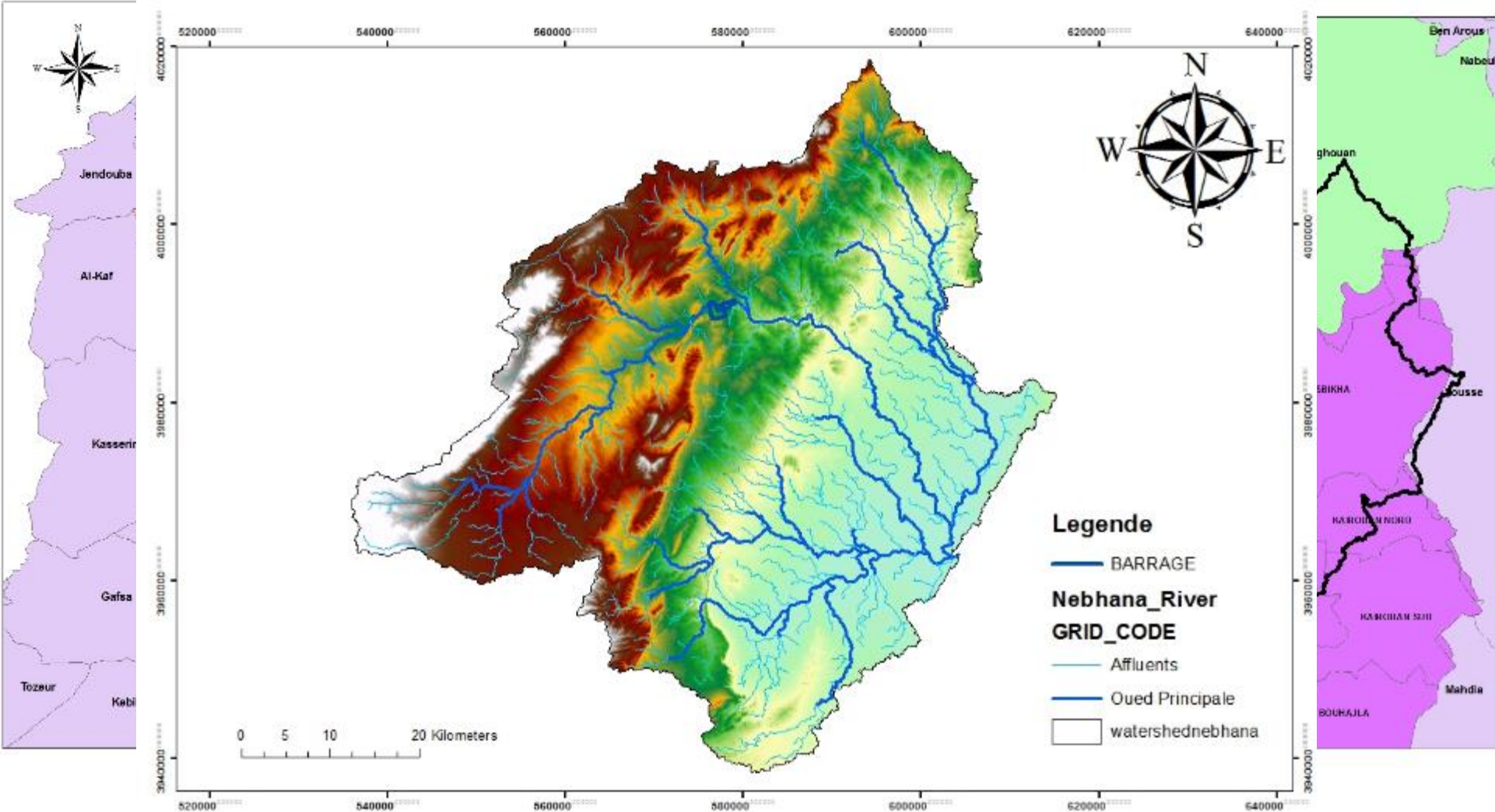
In a context of resource scarcity, the water governance approach has created a conversion from supply management to demand management

Two strategies are being developed in 2020:

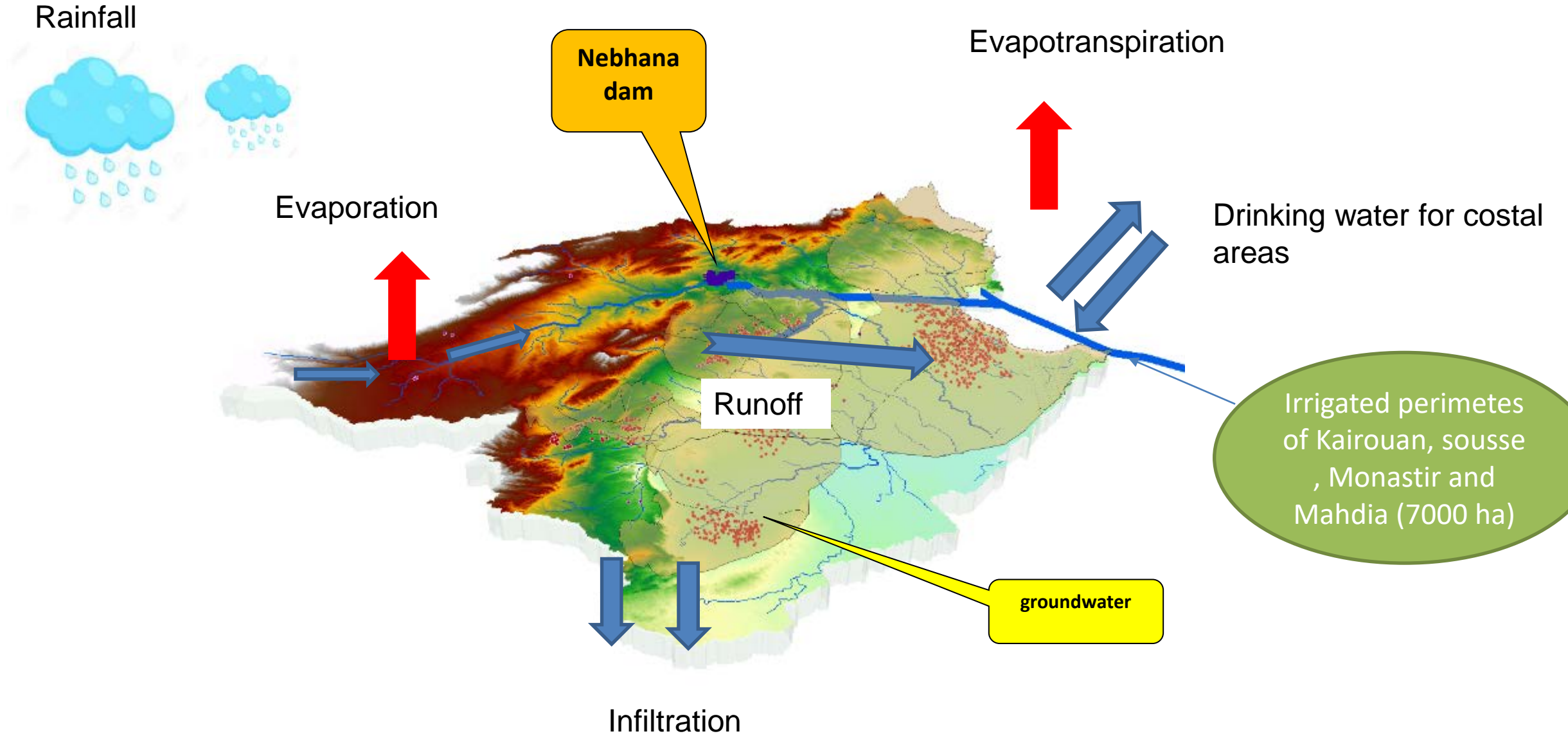
the elaboration of the National Master Plan for the reuse of treated wastewater in Tunisia

the Vision of the Water Strategy 2050 for Tunisia.

Pilot area

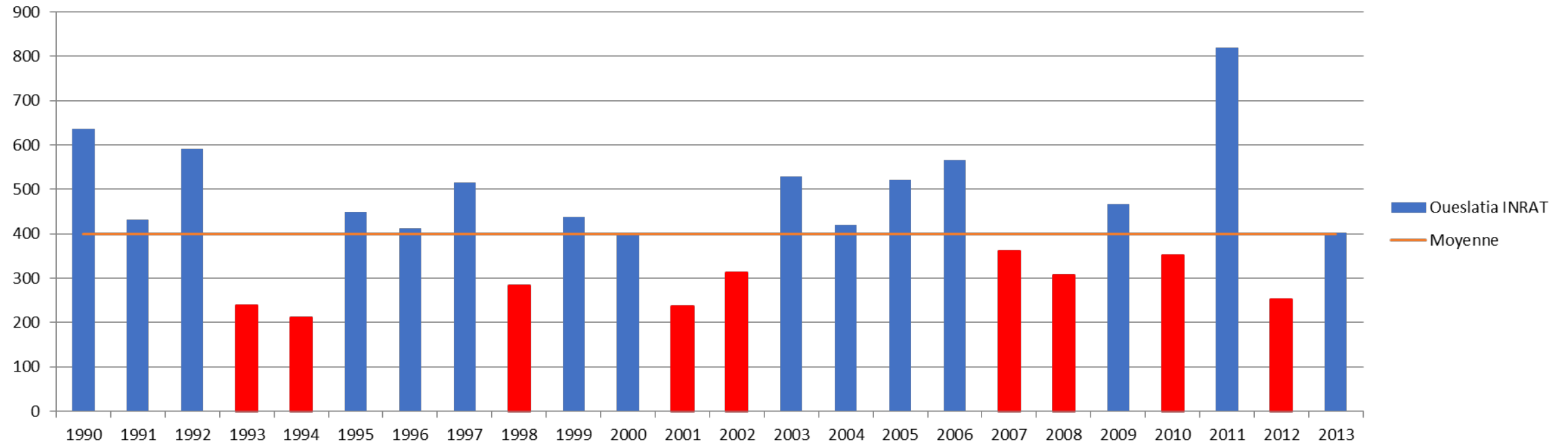


Nebhana system



Nebhana system

Oueslatia station



Period:23 years
9 years below the average
9 years above the average
5 average years

Pilot Area

The Nebhana area is characterized by low rainfall, high evapotranspiration, general drawdown of the piezometric level, and irregular inputs to Dam.

The water demand is about 30 Mm³ for the irrigated perimeters and 5 Mm³ for drinking water, in the other side, the average volume entering to the dam is about 20 Mm³.

Manage water allocation between different users seems to be difficult

Objectives

Help the administration to better manage water resources by improving demand management policy

Improve water allocation in Nebhana system to agriculture and within agriculture

Strengthening the mission of the Concertation about water allocation, developing the capacities of the actors

Ideas for action plan

- 1- Performance of irrigation scheduling calendars based on agrometeorological conditions**
- 2- Aligned water allocation plan with the farming schedule**
- 3- Move towards new cropping systems (or to reinforce existing ones) less demanding in water and whose products allow important revenues**
- 4- Make water savings at the stages of transport and use**
- 5- Give main importance to rainfed agriculture to play a regulatory role on water demand..**

Thank you