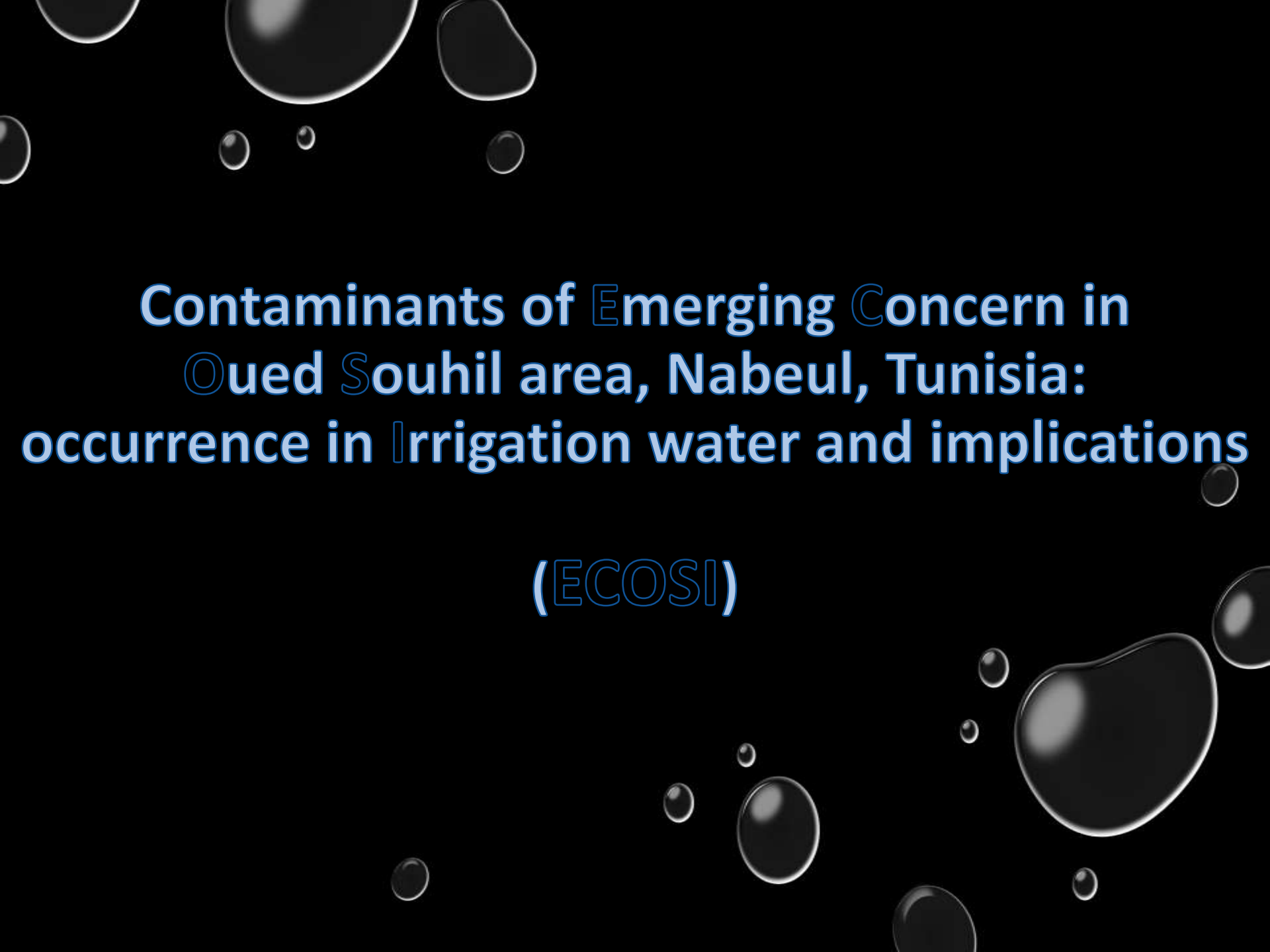




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**Contaminants of Emerging Concern in
Oued Souhil area, Nabeul, Tunisia:
occurrence in Irrigation water and implications**

(ECOSI)

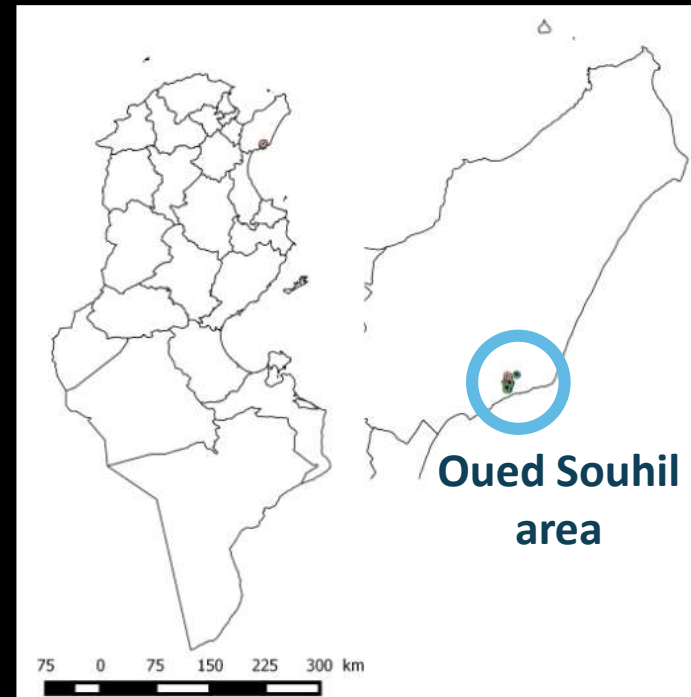
Scope

Collection of existing data and generation of new ones on contaminants of emerging concern (CEC) in water resources used for irrigation, soil, and plants (when possible) in Oued Souhil area (Tunisia) to provide information on their relevance and potential environmental impacts.

Objectives

- Globally, to address the occurrence of contaminants of CEC in irrigation water (wastewater and groundwater), in soil, and in plants in Oued Souhil area (Tunisia).
- More specifically, to investigate the relevance of CEC in these matrices, based on available data and literature, with respect to their fate, behaviour, and risks to the ecosystem.

Site description



- Oued Souhil area (Nabeul, Tunisia): 280 ha, 300 farmers, using secondary treated effluents since the 80's.
- Low quality of reclaimed water and insufficient quantity → Use of groundwater conjunctively (or not) for irrigation.
- Unknown load of pollutants (organic and inorganic), including CEC, and their environmental impacts.

Expected Outcomes

- Better understanding of the reuse challenges (water quality, agricultural practices, legislation and regulations, environmental pollution, etc.) in the area of study.
- Share of knowledge (quantitative and qualitative data) on CEC with R&D institutions.
- Establishment of a “watching list” of CEC for future monitoring within future research programs.
- Provision of science-based recommendations to policy/decision-makers for a more efficient control of discharges in sewers and water bodies.

Expected Outcomes (cont'd)

- Recommendation of appropriate technologies for remediation to secure safe reuse in irrigation.
- Evaluation of the analytical capacities and skills requirements.
- Stronger ties and enhanced cooperation between scientists from North and South Med and across the Atlantic.
- Connection with on-going (Nereus COST Action ES1403) and previous (EMPOWER Tunisia) R&D projects.

Preliminary Results

- National guidelines for wastewater reuse in agriculture (106.03, 1989) do not take into consideration CEC (only pesticides were limited to 0.001 mg/L).
- Various CEC are expected to be regulated after the new version of the national guidelines for discharge of effluents in water bodies, based on the type of activity/pollution load.



Research team and experts





THANK YOU



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