Ministry of Higher Education and Scientific Research

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WaterReTUNe

Innovation Forum of project WaterReTUNe

Tuesday, 21 March 2023,
ElMouradi AFRICA hotel

GDA Sidi Amor

Sidi Amor Water Living Lab

Taieb Ben Miled & Karim Rgaieg &Haidar Ben Hassen &Hedi Segond & Sofiene Akkari

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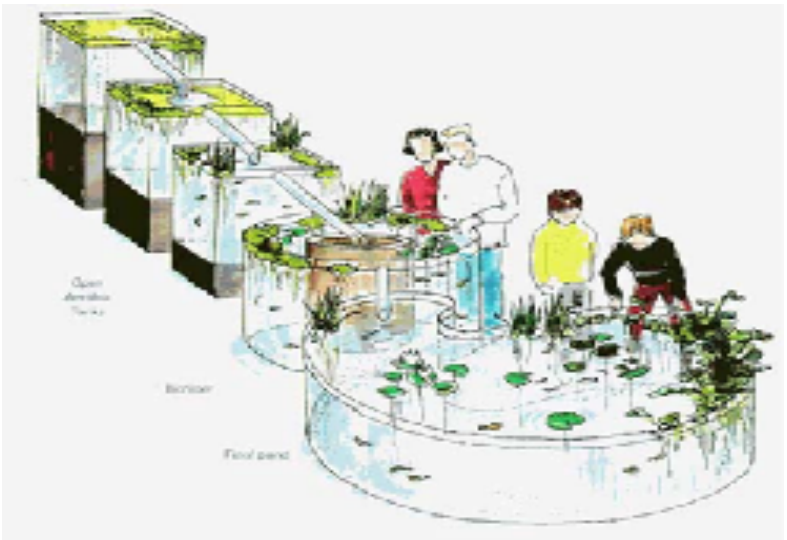

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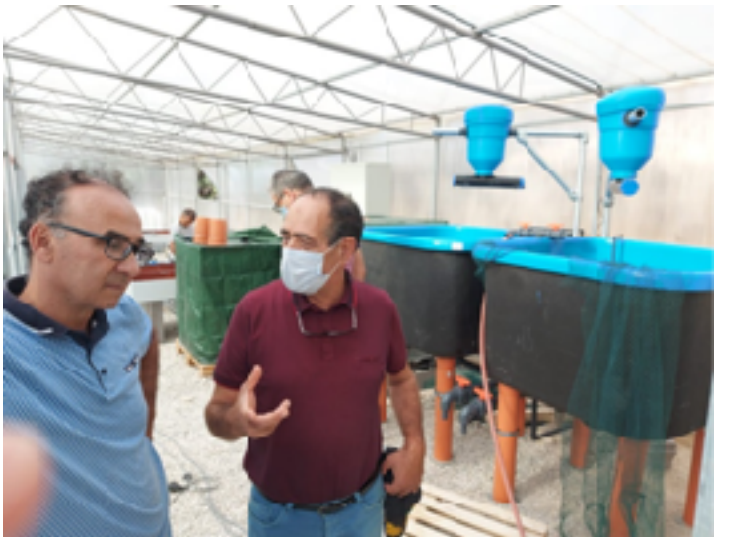

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Sidi Amor Units and Gardens become living labs for scientists, watershed groups and farmers

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TRESOR

Training Workshop

Wastewater and Biosolids Treatment Using Constructed Wetlands and Drying Beds

Usage of constructed wetland at NGO Sidi Amor
Lessons learned from a tunisian case study

Taieb Ben Miled, GDA Sidi Amor – Ariana -Tunis

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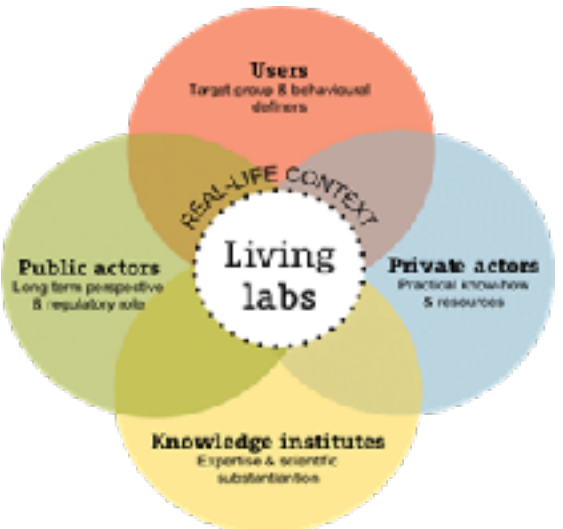

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Empowering Farmers in setting up Innovative Strategies for Water related Agroecosystem services

Italy Farm Lab

Subcathment: Tuscany Costal area
Local Partner: Scuola Superiore S.Anna

WEF Nexus challenge
Agricultural areas are using large amount of water causing groundwater exploitation and externalities such as salinization, subsidence, disappearing of groundwater-related ecosystems

Existing Technologies
- Managed aquifer recharge. A fully equipped MAR scheme using rainwater harvesting concept valuable up to 1.3 M m3

Stakeholders
Land and Irrigation Management authorities, River Basin Authority, farmers organisations

Spain Farm Lab

Subcathment: Rio Daja (Duero)
Local Partner: Universidad Politecnica de Madrid

WEF Nexus challenge
The extensive cultivation devoted to grapes cereals and othe annual crops put pressure on both water and energy resources the efficient use of the energy in irrigation networks will be addressed and the optimal water resources management as well.

Existing Technologies
- Direct solar pumping for water well extraction and for pressurized plot irrigation equipped with drip irrigation system

Stakeholders
Irrigation district authorities, River Basin Authority, farmers organisations, local communities

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Tunisia Farm lab

Subcathment: Gouvernorat de l'Ariana
Local Partner: GDA Sidi Amor

WEF Nexus challenge
The irrigation area of Boj Touil is carctherized by olives and flower production. The increasing water demand is putting pressuere on local water resources that are limiting the development of this important economic sectors

Existing Technologies
- Drilling with photovoltaic panels
-Constructed wetland system for wastewater treatment

Stakeholders
AgricultureMinistry; Environment Ministry; UTAP (National Farmer's Organisation) Municipality (Raoued)

Turkey Farm Lab

Subcathment: Antalya basin
Local Partner: SUEN
Turkish Water Insitute

WEF Nexus challenge
Antalya Basin is under water stress due to both agricultural activities and mass tourism. Current agriculture practices (mainly greenhouses but also open field cultivation) show criticalities regarding optimum water/nutrients use and minimization of runoff, so that quality/quantity of water bodies can be sustained in the basin

Existing Technologies
Traditional irrigation systems

Stakeholders
State Hydraulic Works (DSI),farmers and local communities

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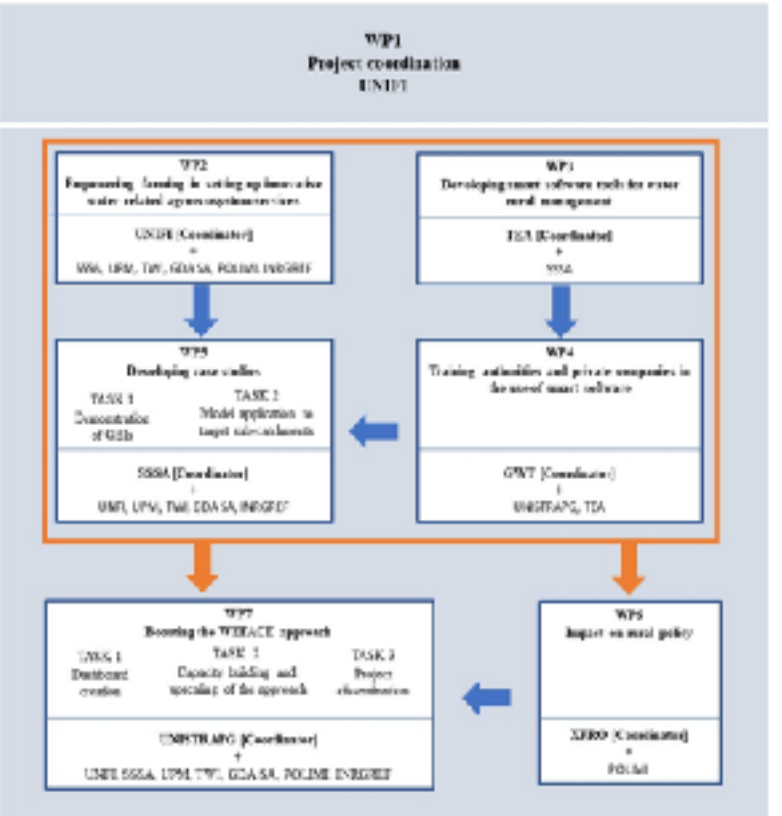

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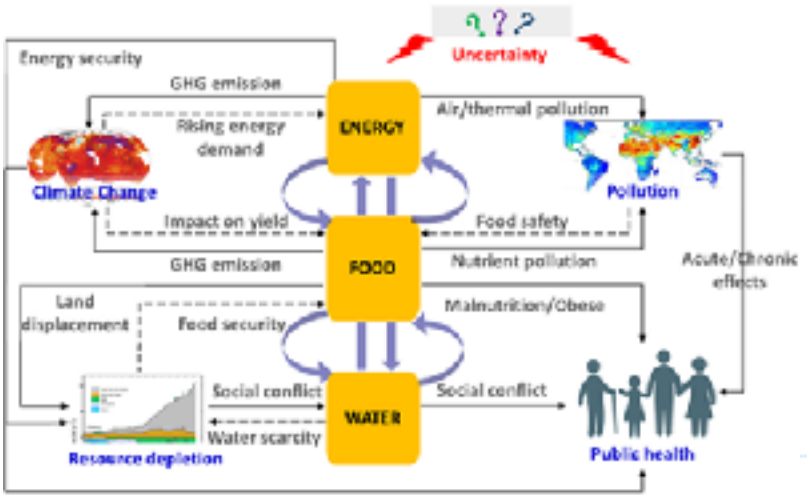
The Water Pathway

CIRCULAR ECONOMY § WASTE WATER

IN SIDI AMOR AREA



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CIRCULAR ECONOMY § WASTE WATER

IN SIDI AMOR AREA

Sidi Amor Units and Gardens become living labs for scientists, watershed groups and farmers

Sidi Amor Living Lab is first to pilot concept that will now be used across Tunisia

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How can the Living Labs develop sustainable and efficient solutions for water use?

Climate change and economic or population growth – those factors create challenges to the water sector in coastal areas and beyond. Water scarcity and increasing water demand result in the overexploitation of resources, quality deterioration and regional imbalances in the availability of water resources.

To tackle these challenges, the European research project 'building a water-smart society and economy', short B-WaterSmart, develops and demonstrates smart technologies and circular economy approaches for the water sector. The research in the project is based on the work of six demonstration sites, called Living Labs, all across Europe. Together with research partners and local technology providers they develop and test water-smart management solutions and technologies

In order to implement those solutions strongly in the practice of the water sector, technical and digital solutions, as well as new business models, are jointly developed by all project partners. The overall aim is to accelerate the transformation to water-smart economies and societies in coastal Europe and beyond by reducing the use of freshwater resources, improving the recovery and reuse of resources, and increase water use efficiency.

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Prof. Dr. Martin G. Grambow
Honorar professor der TUM seit 2012 / Fakultät

Ingenieur fakultät Bau Geo Umwelt /

Fachgebiet International Water Management

Exploratory Mission of Bavarian « Forest-Water-Well being in Tunisia » with Munich University team. **Prof. Dr Jörg E. Drewes** Chair Professor

Chair of Urban Water Systems Engineering, Technische Universität

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