Sustanability

2022

Vision

The center is well recognized at the local, regional and international levels, in scientific and applied research; teaching; training; community service; knowledge transfer; and international cooperation in water, energy and environment.

Mission

The Water, Energy and Environment Center works in partnership with local, regional and international institutions, to address water, energy and environment related issues towards achieving climate resilient sustainable development.

The following projects at The Water, Energy and Environment Center are ongoing projects that addresses the Sustainability of Jordan’s resources.

Project 1

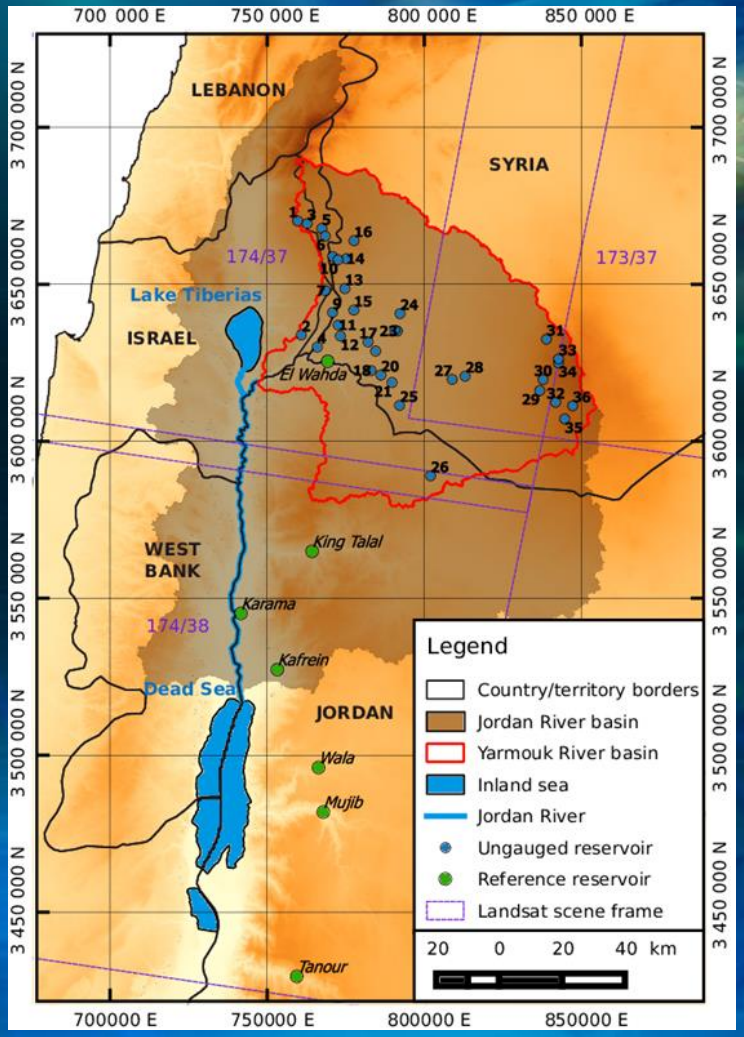
- Waste To Positive Energy
  - cooperation between the UJ and the German partner universities in waste management teaching and research activities.
- Funded by: Rostock University – GIZ

Project 2

- Green Corridor Project Overhead Lines EIA
  - The Overhead Lines has been implemented to reinforce Jordan's high voltage electricity transmission network, and create economic growth opportunities in the renewable energy sector.
- Funded by: NEPCO

Project 3

- Water Resources Sustainability of YRB
  - Integrated approach for water resources sustainability of Yarmouk River Basin considering the socioeconomic aspects by using supply-demand simulation model.
- Funded by: SRF



Project 4

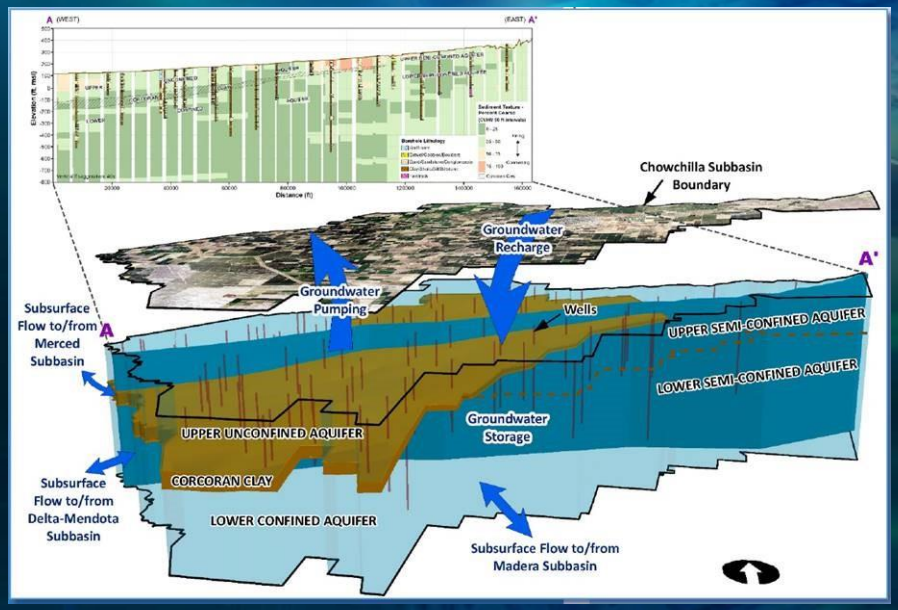
- Implementation of a Capacity Building for Wastewater Treatment laboratory of WAJ
  - participants were introduced to theoretical and practical aspects of WWTP according to Level 1 requirements as defined by the USA/ABC Need-to-Know Criteria.
- Funded by: USAID

Project 5

- Employing circular economy approach for OFMSW management within the Mediterranean countries
  - CEOMED aims at reducing municipal waste generation, the optimal exploitation of its organic component by recovering energy and recycling nutrients from fruits and vegetables.
- Funded by: ENI – CBCMED
- https://www.enicbcmed.eu/proeomed

Project 6

- Sustainable groundwater Resources management by integrating earth observation derived monitoring and flow modeling Results
  - RESERVOIR is to provide new products and services for a sustainable groundwater management model to be developed and tested in four water-stressed Mediterranean pilot sites.



- Funded by: PRIMA
- https://reservoir-prima.org/

Project 7

- Decentralized treatment concepts and applications for community members
  - Part of the Sanitation for Millions Program services for conducting 5 training workshops on decentralized treatment concepts and applications.
- Funded by: GIZ

Project 8

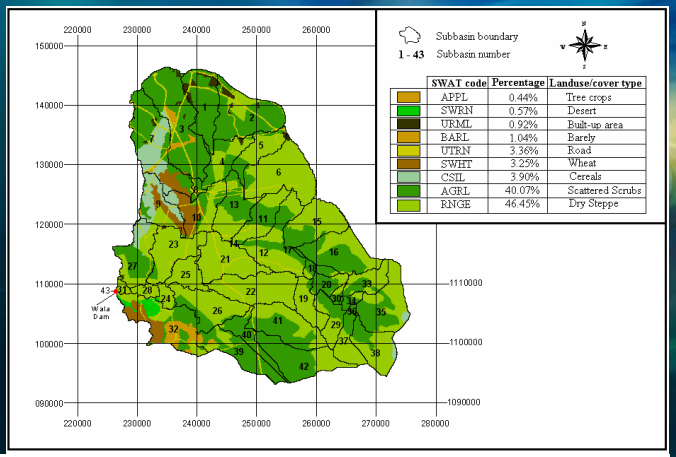
- Water Testing Services
  - Chemical and Biological testing for water samples is performed all over the year. Samples are tested based on contracts or daily requests.

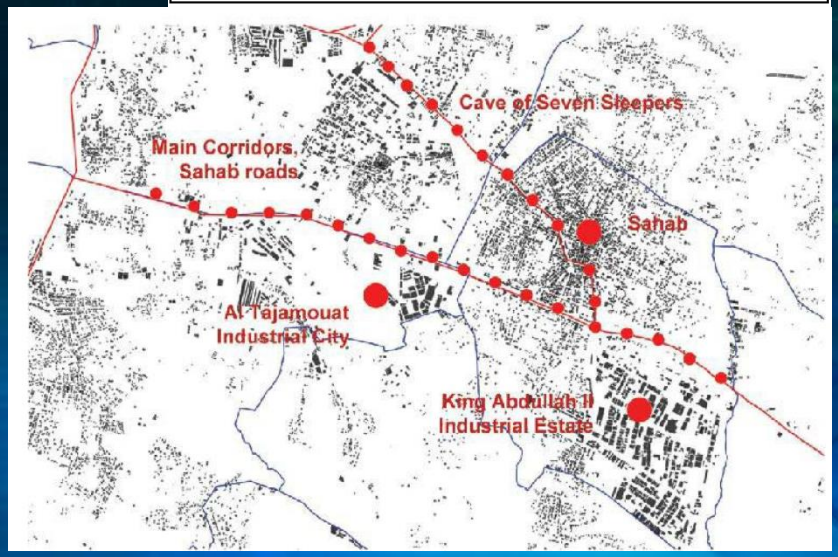
Project 9

- Prototyping sludge pyrolysis: a component of the Sustainable Sludge Management project conducted by the GIZ
- Funded by the GIZ

Project 10

- Innovative methodology to prevent and mitigate diffuse pollution from urban water runoff (WATERUN)
- Funded by EU (Zero pollution program)





More ongoing Projects

- **Water Footprint Analysis as tool as Innovative tool for better Water Management in Jordan**
  - Funding Agency: UJ
  - Principal Investigator (PI): Dr. Arwa Hamaideh
  - Duration: 24 months
  - Starting Date: 2021
  - Objectives: The overall objective of this project is quantification of water footprint and identification of strategic policy options for sustainable water management, based on a comprehensive recognition to direct and indirect issues that contribute to water scarcity assessed by water methodology.

- **A conceptual model to analyse the effects of urbanization and agricultural activities on groundwater levels and quality in Amman Zarqa basin**
  - Funding Agency: SRSF
  - Principal Investigator (PI): Dr. Alsharifa Hind Mohammad
  - Duration: 24 months
  - Starting Date: 2021

- **Micro-plastics in Drinking Water in Jordan**
  - Funding Agency: UJ
  - Principal Investigator (PI): Prof. Abbas Al-Omari
  - Duration: 24 months,
  - Starting Date: 2021
  - Objectives: To investigate the presence of MPs in King Abdulla Canal, the source of drinking water to West Amman, identify and quantify them as well, To investigate the removal of MPs by the different treatment units at Zai Water Treatment plant, To investigate the presence of MPs in finished drinking water in West Amman, identify and quantify them as well.

- **Evaluation of Water Quality of Kufranja Dam in Jordan Using Physicochemical Parameters and Water Quality Indices.**
  - Funding Agency: Deanship of Scientific Research- The University of Jordan.
  - Principal Investigator (PI): Dr. Mahmoud Abualhaija
  - Duration: 18 months
  - Starting Date: 2019
  - Objectives: To determine the suitability of Kufranjah dam water for drinking and irrigation purposes using different water quality indices.

Thank You!