



# Safe Use of Treated Wastewater in Agriculture : The case of Jordan

Progress.....

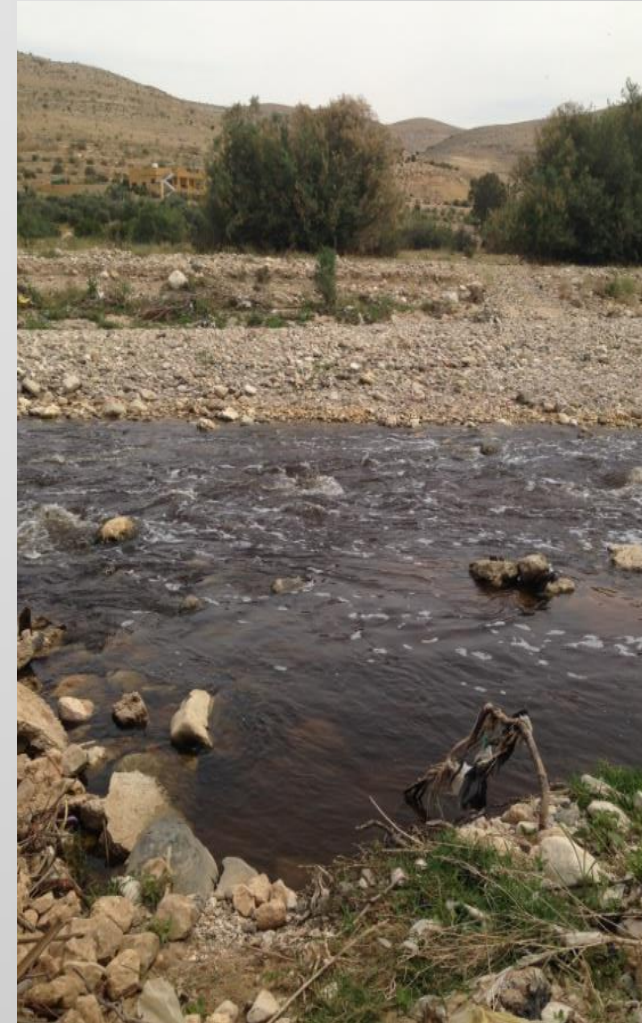




Jordan is a pioneer country in practicing planned and regulated use of reclaimed water in agriculture. Since early eighties, Jordanian government officially promotes agricultural use of reclaimed water and considers treated wastewater a valuable resource for agricultural sector.

## Jordan's water strategies and polices

All treated wastewater will be used for irrigation whenever safely possible while ensuring that health standards for farm workers as well as consumers.







## Currently;

Treated wastewater is included in the water budget for use in irrigated agriculture, it currently constitutes 17% of the annual irrigation water budgets.





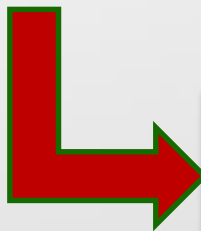
## Current agricultural reuse practices include

### Direct reuse

Use the effluent of wastewater treatment in irrigation of fodder crops and trees

### Indirect reuse

Blending treated wastewater with freshwater to irrigate fruit and vegetables crops in the Jordan Valley



- The regulations emanating from agricultural law no. 44/2002, which lays down the general principles and requirements of agricultural wastewater use.
- JS 893/2006 , allowing the cultivation of fodder, fruit trees, vegetables eaten cooked and cereals.



Nevertheless

Direct reuse is currently restricted to cultivation of fodders and fruit trees,

Practice regulated through agreements held between Water Authority of Jordan and farmer.

In an attempt of introducing the concept of preventive risk management to the agricultural wastewater use in Jordan. A new guidelines that is based on the WHO (2006) guidelines were issued “ Irrigation water quality guidelines- **JS 1766:2014**



Even so, these guidelines are not being fully implemented yet

**Due to the lack of**

- Regulatory and monitoring framework
- Resources for operational monitoring and verification
- Institutional coordination



To move forward, a framework for validation and operational monitoring need to be established





### ***To move forward;***

- Revisit laws and regulations for coordination
- Development of institutional framework for verification and operational monitoring.
- Endorsement of decentralized sanitation systems
- Involvement of private sector





Thank you