

Ministry of Water and Irrigation

# Water Strategy of Jordan

and the Decentralized Wastewater Management Policy

September 2021 H.E. Dr. Jihad S. Al-Mahamid Secretary General

### **Jordan Water Facts and Figures**

- Ranks as one of the world's water-poorest countries.
- Less than 100 m<sup>3</sup> of annual renewable water resources is available per person.
- Composed of 15 surface water basins and 12 groundwater basins.
- The shared water is around 40% of total water resources.
- Sources of water are 27% surface water, 14% treated wastewater and 59% groundwater.





#### Water Sector Challenges

- Significant population growth, due to huge influx of refugees.
- 90% of rainfall evaporates or run off representing lost potential for aquifer recharge.
- Groundwater is being used at twice the rate at which it can be recharged.
- NRW is on average of 48%.
- Agriculture consumes around 50%, with low contribution to the GDP.
- Limited Financial Resources.
- Dramatically increase in O&M costs (e.g. electricity).
- Huge distance between water sources and population centers.



#### Water Strategy of Jordan

- 1. National Water Strategy 2016 2025
- 2. Water Sector Capital Investment Program
- 3. Water Demand Management Policy
- 4. Energy Efficiency and Renewable Energy in the water sector policy
- 5. Water Substitution and Reuse Policy
- 6. Water Reallocation Policy
- 7. Surface Water Utilization Policy
- 8. Groundwater Sustainability Policy
- 9. Climate Change Policy for a Resilient Water Sector

10. Decentralized Wastewater Management Policy

11. Action Plan to Reduce Water Sector Losses



- Framework 2015.
- Submission of Framework to the Jordanian Cabinet in January 2016.
- Adoption of the Framework and Policy, February 2016.
- First Policy for DWWM in the MENA Region.



Decentralized Wastewater Management Policy

2016 Jordan



Suitable wastewater treatment is indispensable for public health, sustainable water resources and the protection of the natural environment, all of which seriously impact economic and social well-being.

 Broad scope, reflecting the wide spectrum of decentralized wastewater management and the many tasks to be performed for successful implementation and sustainable operation.





Involvement, the core principle underlying this Policy

- Groundwater Protection
- Economic Feasibility
- Urban Planning
- Participatory Planning
- Technology Selection
- Regulatory Specifications
- Operation and Maintenance



# **Groundwater Protection**

- Wastewater management is most beneficial where it supports the protection of groundwater.
- Identification of groundwater risk sites

# **Economic Feasibility**

 Finding the most adequate size and configuration of wastewater infrastructure will determine the cost-efficiency of the investment as well as the expenditures for O&M throughout the system's entire operational life-time.



# **Urban Planning**

 Adoption of flexible urban planning to improve land management thus tackling problems such as the increased pressure on infrastructure and resources due to the progressive increase in population.

# **Participatory Planning**

Community involvement for wastewater planning.



# **Technology Selection**

Selecting the most appropriate technology.

# **Regulatory Specifications**

Regulations for effluent standards and monitoring schemes for DWWTPs.

### **Operation and Maintenance**

 Integrated O&M approach (i.e. role and responsibilities of the public and the private sector and provisions for comprehensive quality control (professional qualifications, technical standards/requirements, approval and licensing procedure, contract management etc.).

# شکرا جزیلا - Thank You

