

# Integrated and Multidisciplinary Water Resources Management

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# Past Present and Future of Urban Water Management

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United Nations  
Educational, Scientific and  
Cultural Organization



Regional Centre  
on Urban Water Management  
(under the auspices of UNESCO)

# Establishment and Objectives

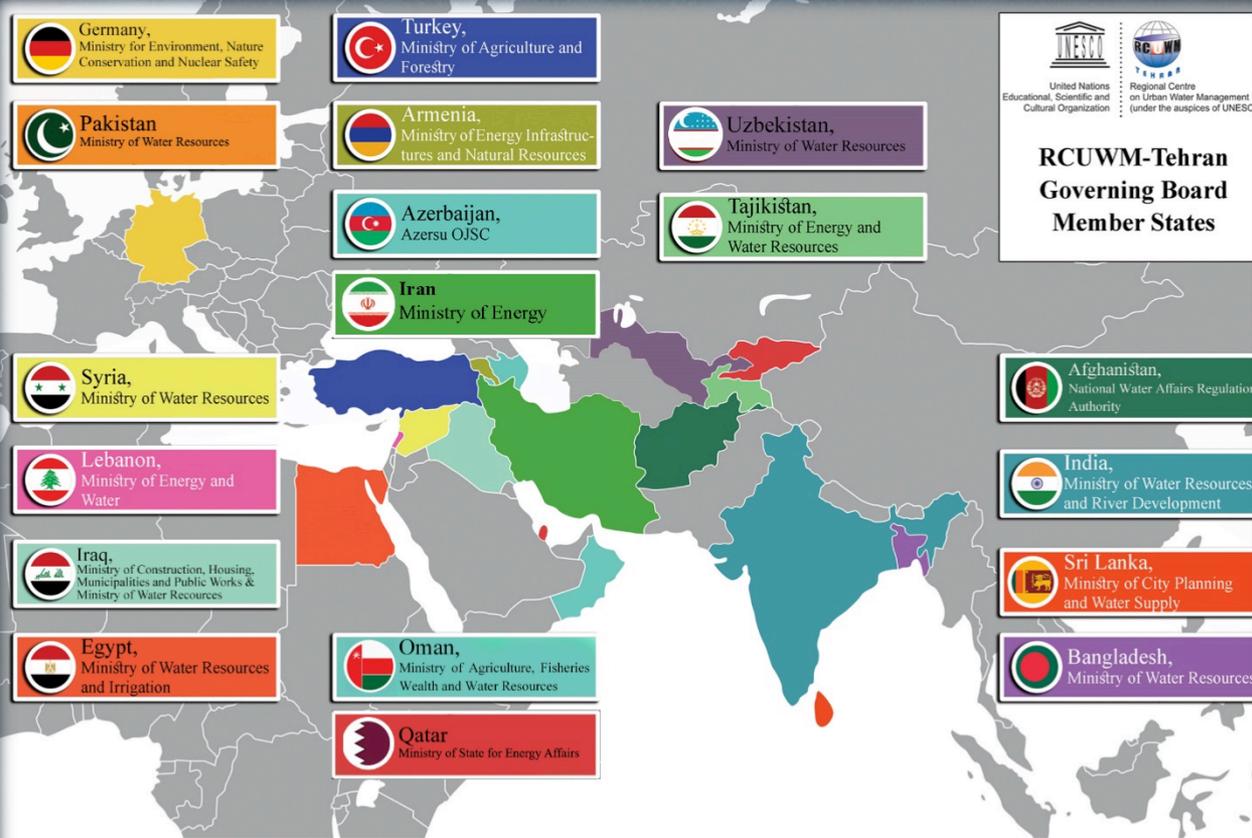
**Establishment:** 5<sup>th</sup> February 2002

**Third Period of Activities:** 2019-2024

## **Main Objectives:**

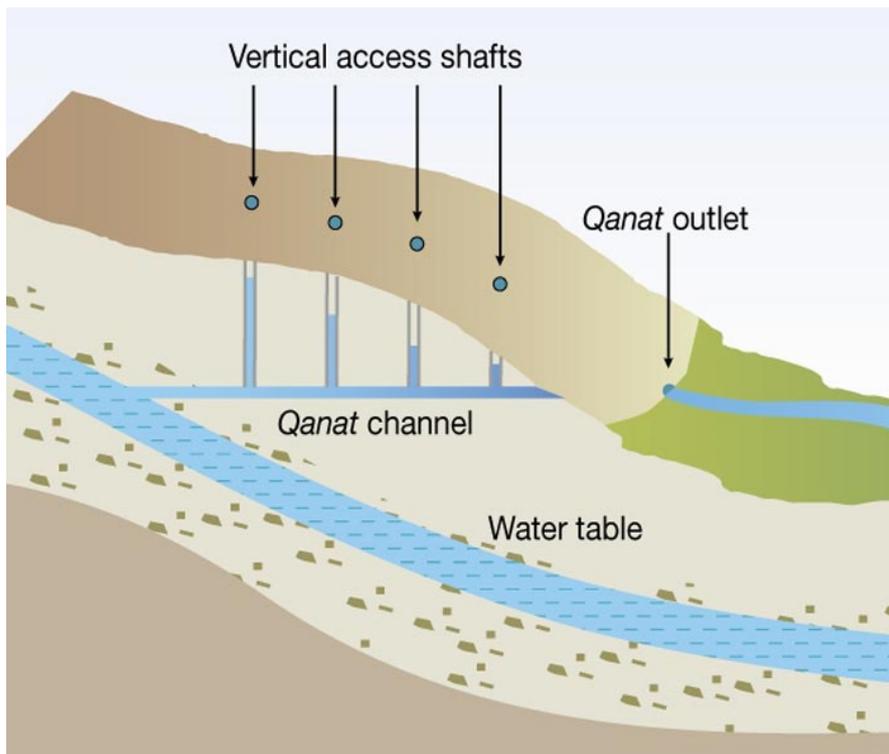
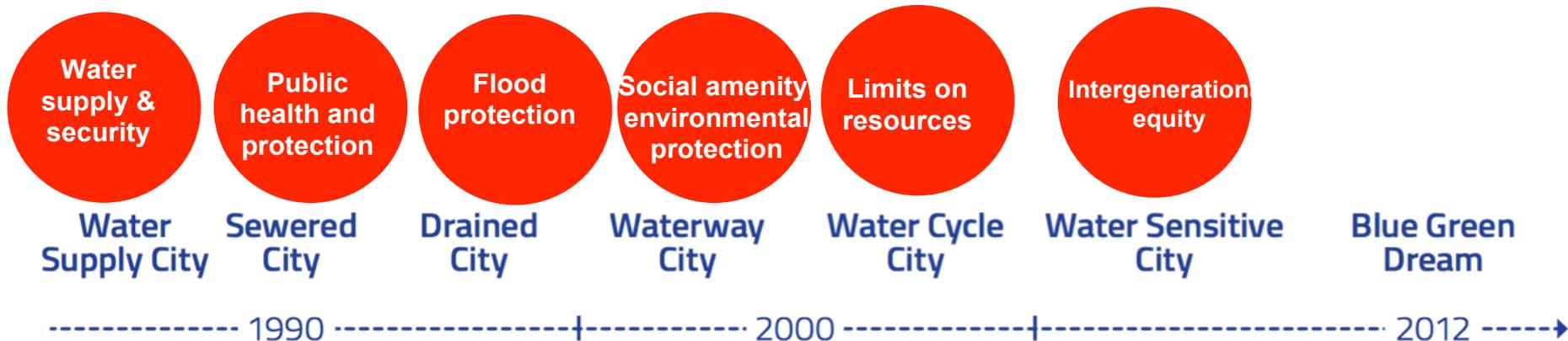
1. Providing support to joint research and technology transfer projects
2. Conducting training courses and capacity building events at various levels
3. Partnership and networking at the regional and international levels

# Governing Board Members

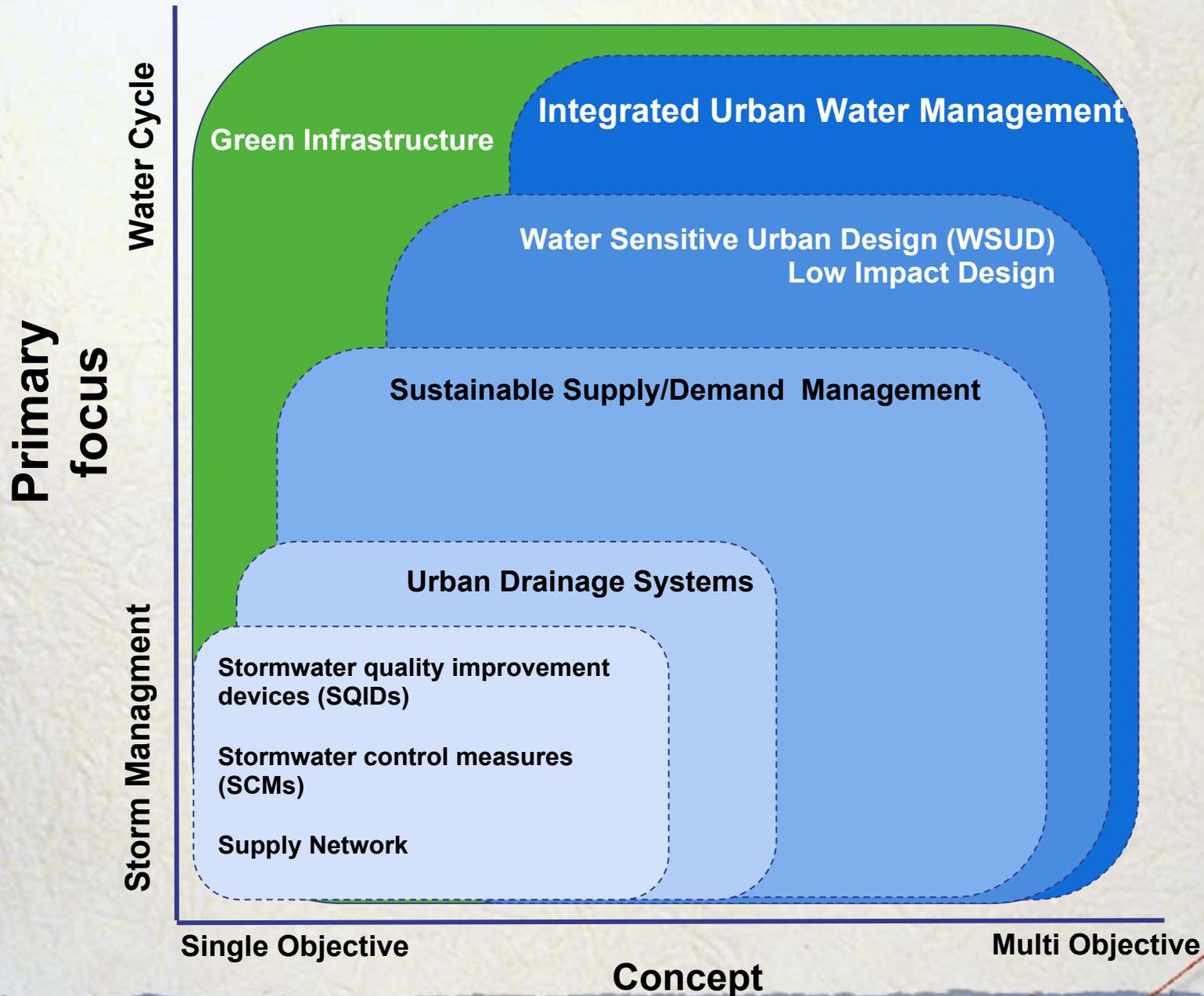


# Evolution of Urban Water Management Concepts

## Cumulative socio-political drivers



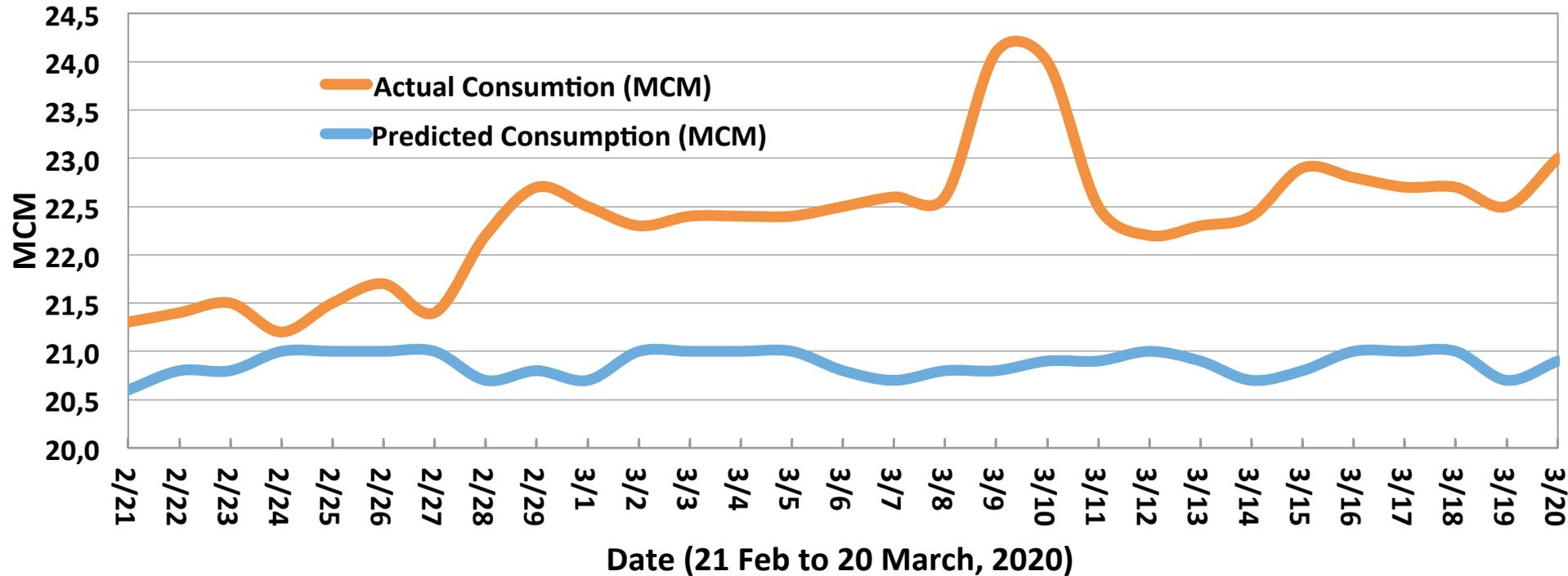
# Classification of Urban Water Terminology



(Fletcher et al., 2014)

# Change in Water Consumption Pattern

## Change in Daily Water Consumption at Beginning of Pandemic

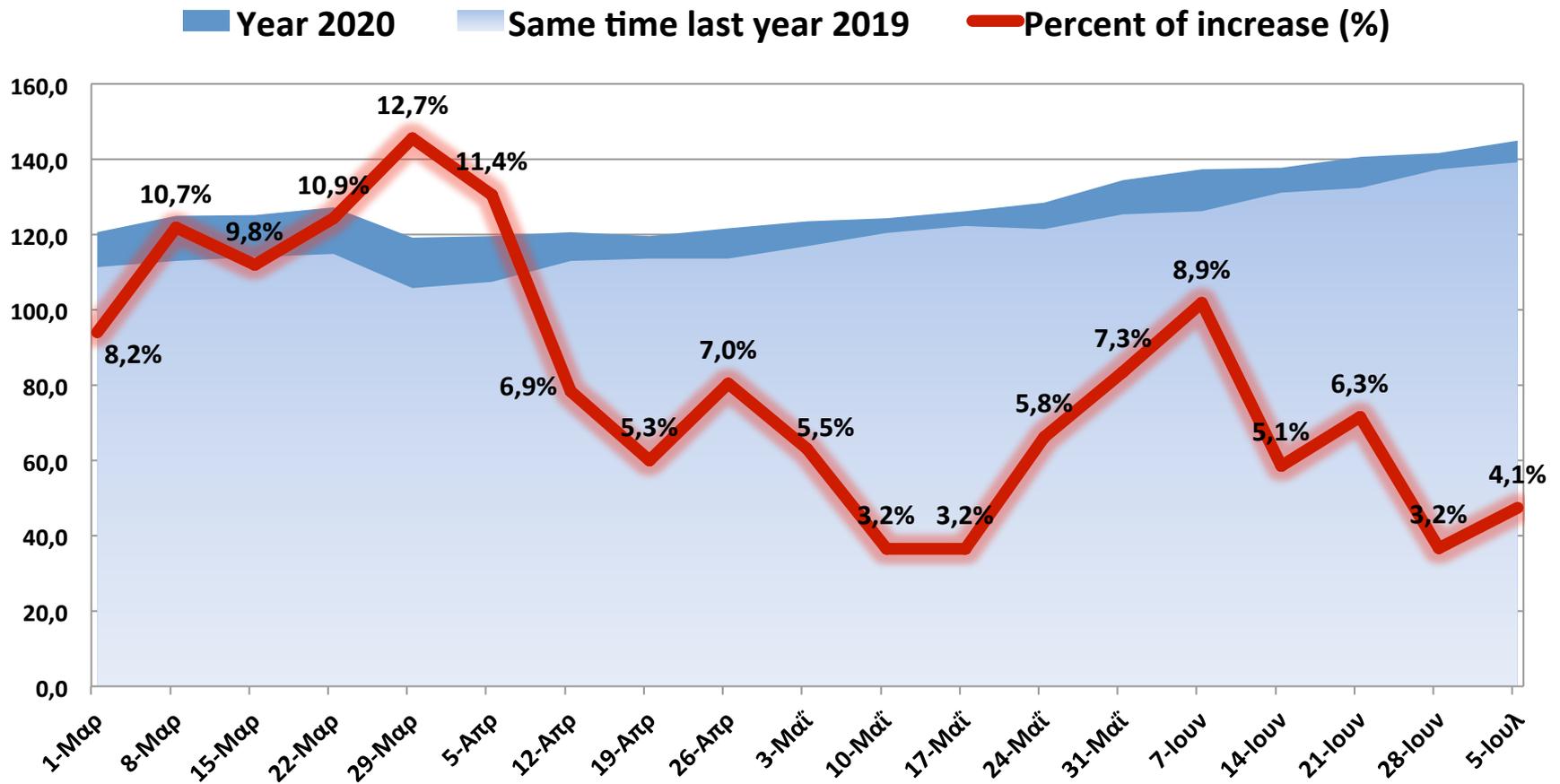


Source: National Water and Wastewater Engineering Company, Iran



# Increase in Urban Water Consumption

## Weekly Water Consumption (MCM)



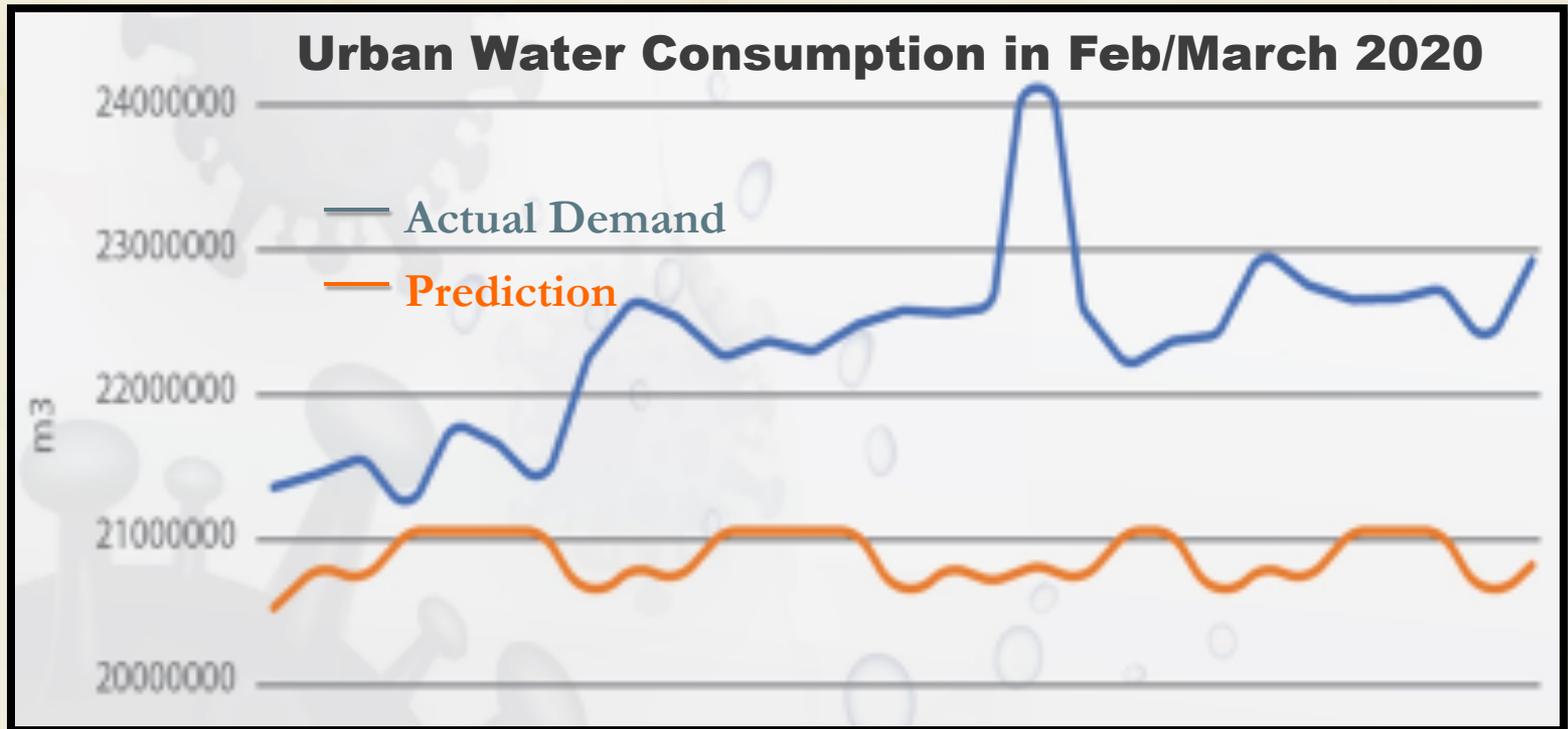
Source: National Water and Wastewater Engineering Company, Iran

# Direct and Indirect Impacts

- **Financial instability of water utilities:** Postponing water bills due and inability to pay bills
- **Increase in urban water demand:** %7.2 increase in comparison with the previous year with max growth rate in the third week of March (%12.7)
- **Supply chain disruption:** Chemical and non-chemicals
- **Infected human resources:** Continuity and quality of services and performance assessment

# Future: New Normal

- Difficulties in demand prediction and energy cost
- High depreciation of facilities and equipment due to expansion of service time and rapid change of service load during pandemic
- Intensification of water quality monitoring through increased number of sampling and the relevant tests
- PPE for staff and operators





# Thank You