

Hashemite kingdom of Jordan



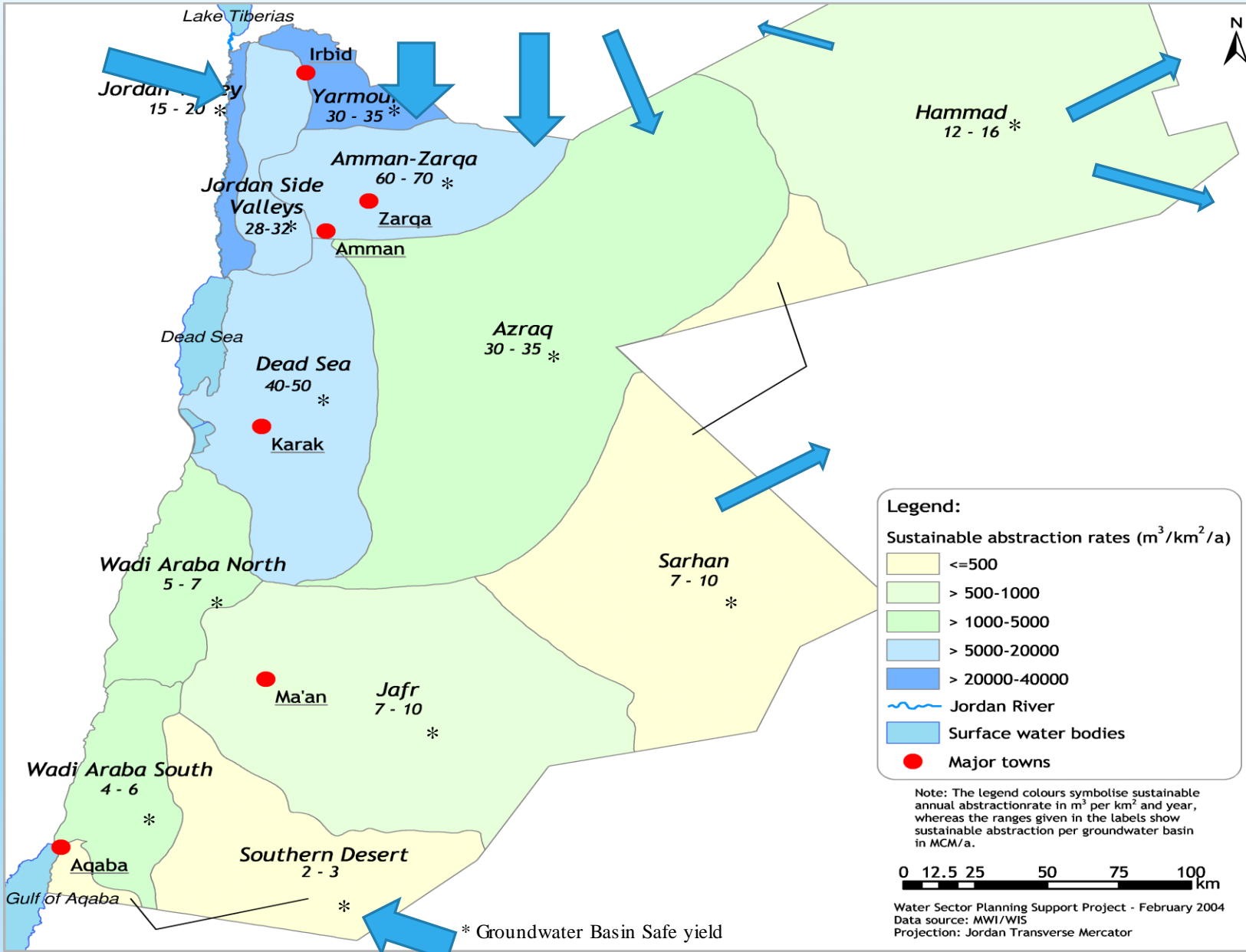
Ministry of Water and Irrigation

Water and Climate change

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Shared Water Resources



Shared water basins:

- 40 percent of Jordan's water resources are shared water
- politically and technically regulated under agreements



Challenges: Climate Change

- Climate change is considered one of the most important current and future challenges on the water sector.

- Potential impacts of climate change on the water sector:
 - Rise in average temperatures and an increase in the intensity of heat waves, leading to increase in evaporation, which would lead to an increase in demand for water in the agricultural sector
 - Decrease in rainfall, leading to decrease of recharge into the aquifers
 - Increase variations and fluctuations in rainfall temporally and spatially patterns that led to severe droughts and intensive floods.

The National Climate Change Adaptation Plan of Jordan

Water resources management



- Sectoral Strategic Objective: Enhancing sustainable water demand and supply through climate resilient measures :
 1. Program W₁: Integrating Climate adaptation and resilience in policy and institutional reforms in the water sector
 2. Program W₂: Improved water demand management and reducing gap between water demand and supply
 3. Program W₃: Improving adaptive capacity of water utilities
 4. Program W₄: Improved efficiency in water use for sustainable development:
 5. Program W₅: Improving contribution of non-conventional water resources to the national water budget
 6. Program W₆: Improving rainfall early warning systems and reducing flood risks
 7. Program W₇: Supporting watershed and basin level management of water resources including transboundary water

NATIONALLY DETERMINED CONTRIBUTION (NDC)



- Key measures include :-

1. Identifying the vulnerability of surface water basins to climate change and developing required adaptation measures.
2. Identifying the vulnerability of groundwater basins to climate change and developing required adaptation measures.
3. Rehabilitation and restoration of key watersheds in Jordan for enhanced retention of surface water and recharge to groundwater.
4. Improving the quality of surface and groundwater by enforcing laws to prevent dumping/pollution and/or incentives for cleanup and restoration of watersheds and basins.
5. Ensuring a reliable supply of water to protect and restore critical water-related ecosystems, including forests, wetlands, rivers, aquifers and lakes.
6. Developing pragmatic management plans for transboundary watersheds, which are shared with neighboring countries and not sustainably or effectively protected by political agreements.

Support the dialogue between water and climate community as follow



- Through national committee on climate change which consists of the secretaries – general of the ministries
- Joint projects that are implemented through ministerial working teams
- Meetings with water user associations and farmers union
- Representatives of the ministry of water participate in the development of the national contribution through committees determined (NDC)
- Through participation in steering committees technical committees scientific committees particular in conferences work shops and other related activities
- Implementing different project in coordination with internal organization funded from green climate fund (GCF)
- Applied university to conduct researches about climate change

The measures related to transboundary water management according in NDC/NAP



- Monitoring the flow quality of water along boundary by use of jointly established monitoring stations .
- Monitoring the Jordan rivers and the Yarmouk rivers prevent the dumping of industrial waste water into it (peace treaty) .
- Water harvesting through construction and expansion of dams .
- Use advance technology to ensure water efficiency on farm level.
- Awareness campaigns for farmers in JV .
- Using mixed treated waste water (TWW) in irrigation purpose in Jordan valley .
- Implementing laws regulations and instructions through a unit that has been established for the security and protection of water sources
- Determining the quantities of water allowed to be extracted form private wells used for agriculture to maintain the safe limit for extraction from basins .
- Remove sedimentation from the dams
- Application of water resources protection instructions
- Monitoring of the king Abdullah canal and dams by patrols affiliated to the water resources protection and security units to prevent pollutions

Challenges and opportunities



❖ Challenges :-

- Unstable region political situations particular in Syria which resulted in stop joint water committee since 2011 until now .
- Decreasing the water resource flow and decrease in ground water recharge due to the decrease in precipitation
- Low data availability rehabilitation of water infrastructure
- Financial resources challenges

❖ Opportunities :-

- Use of advanced technology (monitoring station) use of non conventional water resources (TWW , desalinated water) for drinking and irrigation
- Establishing comprehensive data base
- Rehabilitation of water sector infrastructure
- Use of alternative sources of energy in water sector
- Restriction of drinking water tariff
- Updating laws and regulations
- Preserving the ecosystem
- Empowering youth and gender in the process decision maker



Thank you for your attention