

Socioeconomic and Political context of Integrated Water Resources Management in the Lower Jordan Valley

Key findings

Public participation in policy formulation is the key issue for integrated water resources management.

Regional cooperation is the major possibility to meet the growing water demand and will enhance the socioeconomic development of Palestinians.

The socioeconomic development is the shortest way and the precondition for peace and regional stability.

Good governance and socioeconomic incentives to the farmers will guarantee sustainable management.

The Jordan River basin has a huge potential to be a good model for the Water-Energy-Governance-Food nexus.

Objectives

The Main objective of this policy brief paper is to highlight the socioeconomic and political frame of the integrated water resources management (IWRM) in the Lower Jordan Valley.

Lower Jordan Valley importance for Palestinians

The Palestinian Jordan Valley extends from Jericho in the south to Bisan in the north. Covers an area of about 1.5 million dunums, which equal 25% of the total area of the West Bank. The Jordan Valley is a unique region that has attracted visitors from around the world. It has unique geographical

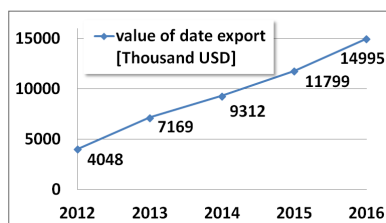


Figure 1 Palestinians exports of dates (2012-2016).

and environmental characteristics unparalleled anywhere else. Moreover, the Dead Sea is the lowest and most saline body of water in the world. The sea itself is abundant in minerals with therapeutic value. Many tourists seeking to

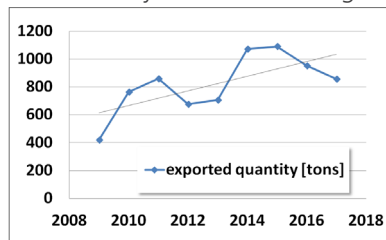


Figure 2 The Palestinian agricultural products export from the Jordan valley (2008-2017).

heal various skin, artery, and joint ailments are attracted to the region. The region has 81 tourist sites, including those of significant archaeological and natural value. It is also the oldest continually inhabited area in the world. The Jordan River is one of the most outstanding symbols of the „Holy Land“ and together with its surrounding area a natural heritage to the people all over the world. The Jordan valley is considered as the food basket for Palestinians. The large potential for urban development of the Jordan Valley area is very suitable for the expected demographic expansion for the West Bank. It is the only remaining Palestinian area that can absorb large scale urban development.



Figure 3 Jericho Agro-Industrial Park.



Diagnosis of the situation

Currently, groundwater is the main source of water for Palestinians. The magnitude of renewable groundwater resources in the occupied Palestinian Territories varies from the official 729 MCM/year (679 MCM/year in the West Bank and 50 MCM/year in the coastal aquifer of Gaza) that is stated in the Oslo interim agreement. Although the official value for the West Bank appears to be overestimated, it was not re-evaluated since then. According to the agreement the annual renewable groundwater resources for the West Bank is distributed over the three major aquifer basins with replenishment volumes of 362 MCM, 145 MCM, 172 MCM for the Western, the North-Eastern and the Eastern basin, respectively. In addition, surface water, represented mainly by the Jordan River, is not yet accessible to the Palestinians due to Israeli control and imposed restriction. However, the flow rate through the river is quite low due to the limited release from Lake Tiberias.

Challenges

The main national interest is how to meet the demand of the Palestinians in the Jordan valley under uncertain socioeconomic, environmental and political conditions. The challenges are manifold:

- fragmentation of governance
- zonal fragmentation of administration and control in the West Bank.
- general uncertainty of the political, economic and demo-

graphic development.

- unequal accessibility and distribution of water.
- groundwater over-pumping caused by insufficient regulation or insufficient enforcement of regulations.
- weak role of the tariff in the efficient and aware use of water.
- generally high risks for groundwater pollution due to difficult legal implementation of groundwater protection based vulnerability.
- no proper mechanism for stakeholder participation
- competition among different water sectors.
- social and cultural perceptions.

Summary and Possible Actions

According to the identified challenges the Palestinian Authority has to define and implement adequate measures and action plans. It is important to properly inform policy makers about the water related problems and challenges and to urge politicians to keep the water issue high in the political agenda. This is especially true also for the obtainment of the Palestinian Water Rights in their resources in the realistic prospect of a full Palestinian sovereignty in a not far future.

1. The national IWRM reform strategy and actions

- Implement the new Water Law#4 and formulate all related regulations including water resources protection, pol-

lution prevention, water tariff optimization, water resources development and monitoring, etc.

- Ensure separation of authorities among various governmental bodies and ministries to ensure a more coordinated and integrated water management approach.
- Develop a clear regulation for stakeholder participation in decision making related to water management and institutionalize such regulation.

2. Measures at technical level

- Promotion a national water saving plan and environmental measures and certify the new saving tools.
- Decentralized wastewater treatment plants for rural and no urbanised areas to be promoted with focus on natural and biological treatment technologies.
- Grey water treatment and reuse at household and group of household level needs to be encouraged. This can also be coupled with modified percolation pits to ensure localized sanitation solutions.
- Guidelines and manuals need to be produced to assist people in better understanding, managing, operating and maintaining the new technological solutions.
- Cooperation with Jordanian Partners to adopt and adjust successful DWWT concepts und guidelines for the Palestinian conditions.



3. Measures at Social and Cultural Level

- National strategy on public awareness needs to be implemented and national campaign needs to be started to improve public knowledge about the advantages of the water saving practice and installation of devices.
- To organize information sessions and arrange visits for pilot locations to change public perception on the reuse of treated effluent.
- Using local media to disseminate and communicate the main messages of encouraging

people to engage in national campaigns for water savings or to highlight various issues related to wrong perceptions and practices related to water and wastewater treatment, reuse and disposal.

4. Develop a regional cooperation plan

- Decision makers define a clear vision.
- Transboundary water and waste water management.
- Decision makers negotiate and define common regional interests and development goals.

5. Other key policy issues

- Using the technological possibilities for reducing the agricultural demand such as new technology of automation of the irrigation and using saline water tolerant crops.
- Public awareness campaign for reuse of marginal and non-conventional water.
- Socioeconomic incentives for the farmers.
- Taking institutional and administrative measures to reduce non-technical non-accounted water.
- Promoting the concept of Water-Energy nexus.



Figure 4 Jericho wastewater treatment plant.



Figure 5 Dates farm.



Figure 6 Jerusalem electricity company solar energy farm in Jericho.

References and further Reading

- Further detailed information about the different studies can be found on the project website www.iwrm-smart-move.de

