

Project phases

1. Getting started / data collection
2. Data analysis / First version of model
3. Data analysis / second version of model
4. Policy scenarios
5. Dissemination and outreach



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Towards concerted sharing.

Development of a regional water economy model in the Jordan River Basin



Project Rationale

Many of the water problems in the Middle East eventually derive from poor understanding of the neighbour's needs and consequent lack of regional



al coordination in water management. Exchange of relevant information is constrained by limited research capacities at various water resource centers, which also prevent the pursuit of joint initiatives for promoting an economically more efficient and ecologically more sustainable water allo-

cation. Hence, beyond improved international coordination, a better appreciation of downstream impacts of water use on neighbours and their water resources is required. The proposed project addresses these concerns by developing consistent perspectives on the concerted sharing of water resources.

Objective

The main objective of the project is to improve the understanding of water resource specialists in the political and physical processes that influence the quantity and quality of water resource management in their neighboring countries. The project initializes this collaboration by the creation of a regional water model that is designed by a multidisciplinary team of water specialists, natural resource experts and economists from Jordan, Palestine Territories, Lebanon and regional research centres.



A Regional Water Model

The spatially explicit regional model has water as focal commodity while accommodating special detail on a) agriculture as largest water consumer, b) the secure and safe water delivery to the industrial sector and to rural and urban households and c) innovative desalination and water treatment techniques.

The model has the particular feature that it quantifies the welfare gains of cooperation between the countries while accounting for hydrological laws of water flows and balancing, water quality and the spatial-temporal variability of biophysical and socio-economic information. By this the model equips decision makers and negotiators with a tool that may assist them in quantifying in physical as well as in economic terms the implications of possible scenarios for concerted water management in the basin.

The regional water model identifies income differ-



ences between social groups in both urban and rural areas and also pays attention to gender aspects, particularly with respect to labor utilization. Regarding the ecological aspects, it keeps track of the variation in ecological conditions and can account for the impact of given climate change scenarios.