



Management, Protection and Sustainable Use of Groundwater and Soil Resources

Background

Many Arab countries are facing major environmental challenges. Water scarcity and pollution in conjunction with loss, degradation and contamination of land resources have become core problems affecting public health and the socio-economic development.

Water and soil are exhaustible and vulnerable resources. A sustainable development of the region requires the formulation and dissemination of adequate guidelines for the management and protection of these resources. Regional and National Capacities for Water and Soil Resources Management have to be enhanced.

Awareness-raising is a prerequisite for the successful implementation of regulations on both the government and population levels.

Partners

- The Arab Center for the Studies of Arid Zones and Dry Lands - ACSAD, Damascus, Syria
- Federal Institute for Geosciences and Natural Resources - BGR, Hannover, Germany
- National governmental institutions in Syria, Lebanon, Tunisia and other Arab Countries

Objectives

- to strengthen ACSAD's role as adviser for national institutions of the Arab region in groundwater- and soil-related issues.
- to develop appropriate methodological tools and guidelines for the management, protection and sustainable use of groundwater and soil resources.
- to disseminate the technical know-how and raise awareness among specialists, decision makers and communities.

*Management, Protection and Sustainable Use of Groundwater and Soil Resources

*phase I: 1997-2000
*phase II: 2001-2003

*funding: German Federal Ministry of Economic Cooperation and Development (BMZ)

*funds (phase II): EUR 1.5 Mio

*implementation: ACSAD - Damascus, Syria
BGR - Hannover, Germany

*focus: Capacity Building in Resources Management, Regional Cooperation



"Progress towards a sustainable use of water and soil resources will be achieved only if the local population – the target group and beneficiaries – can be convinced of the necessary measures."

Approach

1 Training

Training on-the-job and in courses (locally and abroad) and provision of modern equipment enhance the qualification of specialists from ACSAD and participating Institutions.

- The project's Pilot Areas:
- Damascus Ghouta Plain - Syria
 - Beka'a Valley - Lebanon
 - Ras El-Jebel Plain - Tunisia

2 Pilot Areas

Studies in pilot areas consolidate the acquired knowledge and provide valuable information for concerned authorities:

- current status of soil and groundwater quality
- sources of contamination
- vulnerability mapping
- groundwater and transport modelling
- groundwater and soil information systems/GIS
- pathway-related risk assessment

4 Dissemination

- Regional workshops in countries of the Arab League contribute to the dissemination of project outputs, methodologies and guidelines.
- Local information days promote the awareness of communities for the risks of contamination and overexploitation of natural resources.

3 Guidelines & Recommendations

Development of adequate guidelines for the assessment, monitoring and protection of groundwater and soil resources under conditions encountered in the Arab region. For the pilot areas recommendations for preventive and corrective measures will be developed, i.e.

- groundwater monitoring networks
- delineation of groundwater protection areas
- use of treated water for irrigation
- appropriate use of fertilizers