

EVALUATION OF THE SINAI WATER RESOURCES STUDY AND IDENTIFICATION FOR CONSOLIDATION OF ITS ACHIEVEMENT

Country

EGYPT

Location

Sinai

Client

Research Institute of
Water Resources
(RIWR)

Financing

EC

Project Cost

7,300,000 EUR

Services of ENB

73,000 EUR

Project Duration

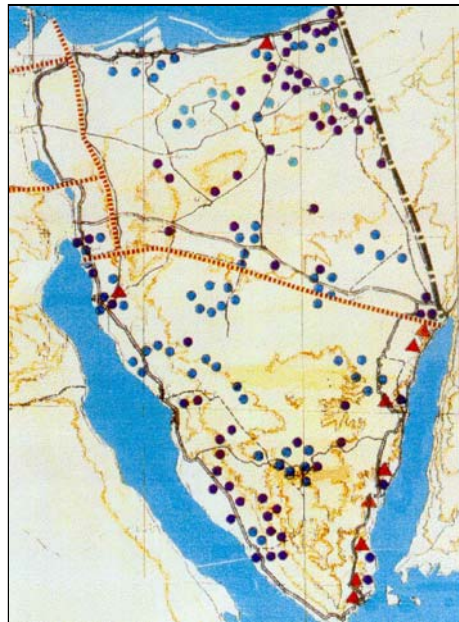
08/1993 - 12/1993

and

06/1994 - 09/1994

Associated Firms

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Map of Sites of Desalination
Stations and New Wells

Project Description

The development of the Sinai peninsula (60,000 km²) involved increase of cultivated/irrigated land from 20,000 to 100,000 Feddans (40,000 ha), mining and tourism development, movement of 80,000 people from Nile Valley to Sinai and increase of available water resources (groundwater to 55×10^6 m³/yr) to 2.5×10^9 m³/yr until year 2020. The Sinai Water Resources Study (SWRS) performed in two phases (1981-1986 and 1988-1993), involved hydrology, hydrometeorology and hydrogeology of the Sinai peninsula, monitoring of groundwater in terms of quantity and quality, localization of areas with increased potential of groundwater production from deep (>5000 m) and shallow aquifers. An important achievement of the SWRS was the extremely successful finding of the deep aquifer in the south-central Sinai ie the "Nubian aquifer" which, if properly exploited, could contribute to the development of high priority regions for groundwater development.

This project involved two missions. The first mission "Evaluation of the Sinai Water Resources Study" which took place in 1993 included evaluation and follow-up of the SWRS, analysis on the water availability, technical and economic review of the study and recommendations and plans of actions for the future.

The scope of the second mission "Identification for consolidation of the achievement of the SWRS" which took place in 1994, was the identification and first assessment of its components and also the formulation of the relevant Terms of Reference and Technical Administrative Provisions.

Services

- Evaluation of all water resources investigations and catchment studies (groundwater, surface water and artificial reservoirs)
- Assessment of the present water situation, availability and future demand
- Recommendations of actions to satisfy future demand including impact on the environment and cost estimate
- Assessment of the qualifications and organisational structures of the Egyptian Authorities in the fields of water resources assessment, exploitation and conservation
- Assistance to the Egyptian agencies in monitoring catchment areas, drilling of wells, assessing present and future water demands, preventing further sea-water contamination and over-exploitation of aquifers and defining a high priority area in the "Nubian aquifer" for a pilot project for groundwater development
- Preparation of Terms of Reference and Technical and Administrative Provisions