

Egypt



The Toshka Project

With the increase of Egyptian population living in just 4% of the country surface along the Nile shores, the government realized the necessity of accelerating its **horizontal expansion plans into the deserted** uninhabited regions of Egypt. As part of this plan, the agricultural land is forecasted to spread out by an area of 1.42 million hectares in several regions of Egypt by year 2017, of which 0.23 would be irrigated by the Southern Egypt Development Project (Toshka Project).

According to the guidelines of the Egyptian Environmental Affairs Agency (EEAA), the decision whether to undertake or not the Toshka Project had to be based on an **Environmental Impact Assessment (EIA)**.

The EIA was undertaken using the **Environmental Impact Assessment Decision Support System (EIADSS)** for irrigation projects, developed by Centre for Environment & Development for Arab Region & Europe (CEDARE).

EIADSS is a computerized checklist - based on a set of multiple-choice questions that describes the project impacts on selected criteria - supported by an Expert System that evaluates all potential environmental impacts of irrigation projects.

Based on the systematic approach of the EIADSS evaluation, the expected performance of the **project alternatives** were assessed, including the implementation of mitigation measures.

The EIADSS recommended to implement the project, mainly due to its **positive impacts on socio-economics, and on the overall economical welfare of the country**.



Overall, the incidental benefits for the natural resources exceed any possible negative impacts, especially with the identification of the mitigation measures to be implemented.

DSS tools and approaches in Egypt

Besides the EIADSS described in this leaflet, several DSS have been developed during the last twenty years for water resources management on the national scale in Egypt.

For instance, The Egyptian National Water Research Center developed a DSS entitled Egypt's Water Resources and Associated Socio-economic & Environmental Dynamic System (EWRSES) while the Cairo University developed a tool - Multi-Objective Decision Analysis Technique (MODAT) - to assist the decision maker in selecting among various alternatives for the design of agricultural drainage systems and groundwater pollution with nitrates.

Keywords: EIA, DSS, Irrigation

Further readings: See the NOSTRUM-DSS *Egyptian National Report*, available at <http://www.nostrum-dss.eu> Home » Final products » Case studies Leaflets

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