

Outline: The German University in Cairo, GUC, is an Egyptian Private University. GUC is established in cooperation with the State Universities of Ulm and Stuttgart, under the patronage of the Egyptian Ministry of Higher Education, the Ministry of Science, Research and Arts, State of Baden-Wuerttemberg, Germany, and supported by the German Academic Exchange Service (DAAD), the German Embassy in Cairo, the Arab/German Chamber of Industry and Commerce (AHK), the Federal Ministry of Education and Research, Germany, The State University of Tuebingen and The State University of Mannheim. The GUC offers outstanding undergraduate curricula to its students. There are seven faculties; Faculty of Information Engineering and Technology, faculty of Engineering and Material science, faculty of Media Engineering and Technology, faculty of Management Technology, faculty of Applied Science and Arts, faculty of Pharmacy and Biotechnology and faculty of postgraduate studies and research. The Civil Engineering specialization has 4 different majors: General Civil Engineering Major (CIG); Structural Civil Engineering Major (CIS); Transportation Sciences in Civil Engineering (CIT); Water Resources and Treatment in Civil Engineering (CIW).

Research Areas:

Our research focuses on the development of novel sediment management and monitoring techniques to aid in the development of long-term sustainable reservoir and river basin environment that can be easily adapted in the face of changing water supply storage, flood control, irrigation and power generation. To realize the sustainable utilization of water resources and ecological environment protection we employ different methodologies; range from physical modeling to field measurements and numerical simulations. Our early work focused on numerical simulation for water and sediment management in channel networks to control flood in the Nile Delta of Egypt. Part of my current focus is on the Aswan High Dam (AHD) responses and Nile delta of Egypt to sedimentations of the newly constructed reservoirs in the upstream regions of the Nile basin.

Features of Research Activities

Several dams are planned in the upper Nile River Basins as shown in Figure 1, particularly in Ethiopia. Recently, several controversial issues specially related to the planned mega projects in Ethiopia. May be these projects will generate positive or negative impacts on the downstream country as Egypt. This study attempts at examining the positive and Negative impact of US reservoirs on AHD, in particular the proposed Mega reservoirs in Ethiopia and Sudan.

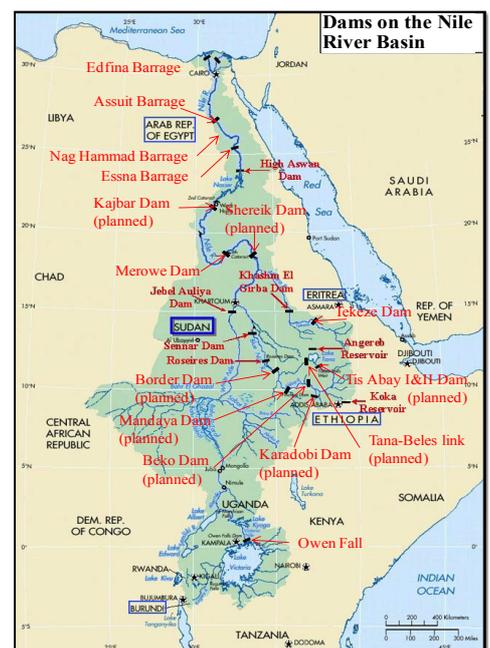


Fig. 1 Map of the Nile Basin showing location of large dams on Nile River Basins