

**A Large Dam
On Difficult Foundation
Keban Dam**

***Zor ve Sorunlu
Temel Üzerinde Yapılan
Bir Büyük Baraj
Keban Barajı***

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ON THE SAFETY OF DAMS" ISSUED AT THE "DAMS AND
HYDROELECTRIC POWERPLANTS IN TURKEY"

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PREFACE

The Southeastern Anatolia Project (GAP), one of the most important regional development project in Turkey, was conceived with the Keban Dam and Hydroelectric Project and it has been on the top of the national agenda of our country for the last 40 years. It is, therefore, my opinion that Keban is the cornerstone of the GAP project. In the 1950s, the idea of constructing an energy generation-oriented dam and hydroelectric power plant on the Euphrates River, near the town of Keban, 45 km far from the city of Elazığ was brought into the agenda. It was then studied in view of other downstream hydroelectric and irrigation projects to be implemented in the future and it was initiated based on the future requirements. So the Keban project was the initiative of 22 dams and 19 hydroelectric power plants with a total installed capacity of 7476 MW and on annual generation capacity of 27.346 GWh, foreseen to be constructed on Euphrates and Tigris river basins upon the planning studies done to date on firstly Euphrates and then Tigris river basins. These projects shall also have an irrigation potential of an area of about 1.700.000 hectares. Keban Dam and Hydroelectric Power Plant is the first and key structure on the Euphrates river and also the first and main plant of the GAP Project. It is not correct to consider Keban Project seperate from GAP Project.

The objective of this book is:

- PART I. Description of the Keban Dam and Hydroelectric Power Plant Project and recollection of the findings and justifications for changes during planning, design and construction stages;
- PART II. Foundation problems during construction and operation of Keban Dam and activities regarding the remedy of the foundation.
- PART III. Conclusions and Recommendations.