شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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IMPACT ASSESSMENT OF THE PROPOSED WATER RESOURCES DEVELOPMENT PROJECTS IN THE TEKEZE ATBARA SETIT BASIN ON NILE FLOW AT ASWAN

By

Ahmed Moustafa Hafez Mohammed

A Thesis Submitted to the
Faculty of Engineering at Cairo University
in Partial Fulfillment of the
Requirements for the Degree of
MASTER OF SCIENCE
in
Irrigation and Hydraulics Engineering

FACULTY OF ENGINEERING, CAIRO UNIVERSITY
GIZA, EGYPT
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Title of Thesis:

Impact Assessment of the proposed water resources development projects in the Tekeze Atbara Setit Basin on Nile flow at Aswan

Key Words:
Tekeze, Atbara, Eastern Nile, Rumela and Burdana, High Aswan Dam

Summary:
Nile River is considered the primary renewable source of water to Egypt. Nile Basin could be divided into two main sub-basins. Eastern Nile sub-basin is the major one that contributes with about 85% of water inflows that arrives at Aswan. Tekeze Atbara Setit is one of the main tributaries of the Eastern Nile sub-basin that lies in Ethiopia and Sudan. Tekeze Atbara Setit is a target for many water resources development projects such as hydropower projects and irrigated agriculture. These projects may have negative impacts on downstream countries. This study introduces a hydrological model for Tekeze Atbara Setit to generate river system flows, which is then coupled with river and reservoir simulation model to simulate current flow conditions in addition to simulate different development scenarios in order to assess their impacts on High Aswan Dam.

Disclaimer

I hereby declare that this thesis is my own original work and that no part of it has been submitted for a degree qualification at any other university or institute.

I further declare that I have appropriately acknowledged all sources used and have cited them in the references section.

Name: Ahmed Moustafa Hafez Mohammed Date: ../../…

Signature:

Dedication

I would like to dedicate this thesis with love to my parents “Moustafa Hafez and Hana Sobhy” for their love, support and encouragement through my entire life because without them, I am nothing. Also, I would like to dedicate this thesis to my beloved Wife “Basma Hamada” who always stands by me and supports me.

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