

Dedication

To my mother

To Soul of My father

To all my family and teachers

Acknowledgement

First my thanks must be to Allah who help me to complete this dissertation.

I am also greatly indebt to all people far and near who have contributed in the making of this study in any way be it with academic input, moral support or encouragement.

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Abstract

Environmental Impact Assessment (EIA) is considered to be the modern environmental studies at the present time. It reveals the environmental impacts due to various development activities. For this reason it is demanded internationally, while all organizations have been advised that the most proposed development projects should be accompanied by Environmental studies in order to have sustainable development. However, the importance of EIA as an effective tool to protect the environment as well as to be a guide for the decision makers and planners. For the purpose of the study, Khartoum Ring Road is selected as study area of the research which might be one of the most important developed projects in the state. The overall objective of the project is to minimize traffic congestion in Khartoum centre as well as supporting the economic structure. The research evaluates the anticipated environmental negative and positive impacts due to project erection. Followed by a series of suggested Mitigation measures to avoid or reduce those adverse impacts to acceptable levels. Environmental Management plan and monitoring are also adopted to attain the goals. The study concludes that most of adverse Impacts arise during the construction stage, and can be mitigated if the above mentioned measures are effectively implemented. Further, some recommendations are presented, not only to protect the environment, but also to improve it and make the project more acceptable.

تجريد

يعد مفهوم تقييم الأثر البيئي من أحدث الدراسات البيئية في الوقت الحالي والتي يتناول الآثار البيئية للأنشطة التنموية المختلفة. وقد أصبح هذا المجال يحظى باهتمام متزايد على الصعيد العالمي، حيث توصي جميع المنظمات الدولية باستخدام دراسات تقييم الأثر في مشاريع التنمية المختلفة، وذلك للحفاظ على تنمية مستدامة. ومن هنا تبرز أهمية تقييم الأثر البيئي كعنصر فعال في حماية البيئة ومنازاً في يد أصحاب القرار والمخططين. ولغرض البحث تم اختيار مشروع الطريق الدائري بولاية الخرطوم، الذي سوف يرى النور في السنين المقبلة، وهو يعد من المشاريع التنموية الهامة بالولاية، لاسيما وأنه سوف يلعب دوراً كبيراً في فك جزء من الاختناقات المرورية بمركز الخرطوم، علاوة على أن المشروع يعتبر دعامة من دعائم الهيكل الاقتصادي بالمنطقة. حيث يتناول البحث دراسة تحديد وتحليل الآثار البيئية المتوقعة من قيام المشروع وذلك بشقيه الإيجابي والسلبي تتبعه سلسلة من الخيارات والتدابير اللازمة لتجنب أو تخفيف حدة هذه الآثار السالبة عند مراحل المشروع المختلفة مع وضع تصور لخطط الإشراف البيئي والمتابعة بغرض تحقيق الأهداف.

خلصت الدراسة بأن معظم التأثيرات البيئية السالبة تحدث في مرحلة التنفيذ ويمكن تجنبها أو تخفيفها بتطبيق الخيارات المطروحة السالبة الذكر. اختتمت الدراسة أيضاً بعدة توصيات من شأنها أن تلعب دوراً فاعلاً لا لحماية البيئة فقط، بل لتحسينه وجعل المشروع أكثر قبولاً.

Abbreviations

Abbreviation	Description
dB	Decibel
EAP	Environmental Action Plan
E.C	Electric Conductivity
EFS	Environmental Feasibility Study
EMP	Environmental Management Plan
EES	Environmental Evaluation Studies
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
F	Fahrenheit
HCENR	Higher Council for Environmental & National Resource
IES	Institute of Environmental Studies
NGOs	None Governmental Organizations
NEAP	National Highway Authority
No.	Number
PH	Negative Logarithm of the Hydrogen ion concentration
PLC	Portland Cement
PPM	Part Per Million
ROW	Right Of Way
T.H	Total Hardness
US	Unite States

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