# **Dedication**

This thesis dedicated to my lovely family:

Parents, brothers and sisters

Who encouraged me to continue my education

And also patiently tolerate my absence during study period.

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#### ABBREVIATIONS AND ACNONYMS

FAO Food Agricultural Organization

Fed. Feddan = 0.42 hectare

FNC Forest National Corporation

Hanzel Citrulus colocynthis
Haskanit Cenchrus biflorus

Higlig Balanities aegyptiaca

Honey mesquite Prosopis glandulosa

Khalwa Inforam Islamic education

Laud Acacia nubica

Merikh Leptadenia pyrotechnica

Mesquite *Prosopis spp.* 

Seyal Acacia tortilis Sub sp. Raddiana

Sidr Ziziphus spina-christi

Tabr Ipomoea cordofana

Tumam Panicum turgidum

Tundub Capparis deciduous

Usher Calatropis procera

Zariba Fence

#### **Abstract**

This study is conducted in El Getaina area, with the objectives of quantifying the values, benefits, Socio-economic Aspects and the negative Impacts of mesquite. In addition to study attitude and perception of the local people towards Mesquite. Also to investigate the rate and extent of Mesquite spread, in El Getaina town and surrounding area.

The study revealed that Mesquite is widely spreading along the White Nile banks and extended to El Getaina area. It is a strong invader and creating several problems to local people by causing hindering the freedom of movements, in the region and blocking the entry to the Nile banks.

In spite of dislike perception of local people towards existence of mesquite in the area, Mesquite as a tree provides a wide range of benefits to the communities in the area. 71% of respondents agree with the spine of mesquite is harmful. The most important use of Mesquite is represented by fuel wood energy whereas 73% of respondents in the area use mesquite as fuel wood, and 79% of respondents use mesquite for fire wood. The use for construction is limited to low percentage of the people in the study area it may be, due to unsuitability of wood size for that purpose. The timber of other indigenous species for construction and furniture is more preferred. However, the share of mesquite in charcoal making is 86% may be due availability of wood. 77% of respondents at breeding animals, they agree with the main dominant and available range plant is mesquite. 70% of respondents believe that mesquite has negative impact on pasture. However, 71% of respondents want to get rid it.

The present study indicated the need for management planning so as to control the extent and spread of Mesquite in less fertile or degraded regions, and species selection that satisfy multiple objectives in El Getaina area.

#### خلاصة البحث

اجريت هذه الدراسة بمنطقة القطينة، بهدف معرفة قيمة وفوائد المسكيت وآثاره الجانبية وعلاقة المواطنين المحليين ومدى قبولهم لوجود المسكيت بالمنطقة. كما تهدف الدراسة ايضاً معرفة سرعة ومدى انتشار المسكيت في منطقة القطينة.

اتضحت من الدراسة ان المسكيت منتشرة في المنطقة بصورة كبيرة على طول شريط النيل الأبيض المجاور لمنطقة القطينة مما أدى لبعض المشاكل للمواطنين، كعائق لحرية الحركة في الطرقات وأغلاق مداخل النيل.

رغم النظرة غير الإيجابية للمواطنين في إتجاه شجرة المسكيت إلا أنها تقدم فوائد جمة للمجتمعات المحلية في المنطقة مثل العلف وتثبيت الرمال و حطب الوقود وغيرها، ويعتبر استعمال المسكيت كوقود من أهم الإستخدامات، حيث أكد ذلك 73% من المستهدفين, فيما يختص باستعمال المسكيت كحطب حريق 69%, ومساهمتها في استخراج الفحم 86% وكعلف اكد ذاتها 77% من المستهدفين بانها من اكثر انواع العلف السائدة في المنطقة. اما اثارها الجانبية للمرعى حيث اكد ذلك 70% من المستهدفين و 71% منهم يوافقون على قرار الابادة،. اما استعمال المسكيت للبناء والحماية يعتبر محدود. وان اخشاب الانواع الأخرى أكثر إستعمالاً.

أكدت الدراسة ضرورة الإدارة الفنية للحد من انتشار المسكيت في المناطق غيرـ المرغوبة فيها. وإختيار الأنواع المناسبة من الأشجار لتفي بالأغراض المتعددة.