

## **Dedication**

**To My Parents.**

**Brothers .**

**Wife,**

**Sisters,**

**And all My friends**

## **Acknowledgement**

I would like to express my gratitude to my supervisor Dr. Abd El Hai Mohamed El madina for his guidance, support and encouragement during the period of this research. I am indebted to the staff of the faculty of Forestry and range science in Sudan University of Science and Technology.

I would like to offer my profound appreciation to my friends. Also my sincere thanks to my family, parents , wife , brothers and sisters. I am indebted and grateful to the farmers in Gadarif State for their help.

## **Abstract**

### **Study of Farmers Perceptions and Attitudes Towards The Shelter Belts In Farms In Gedarif State**

This study was conducted in the Gedarif State in 2012 to investigate the farmers, perception and attitudes toward shelterbelts establishment and protections in farms. The overall objective of the study was to highlight the farmers, perceptions and attitudes toward the shelterbelts in the farms while, the specific objectives were : to determine the awareness level to investigate the farmers perceptions, attitudes towards the shelterbelts, and to assess the effect of shelterbelts on crop productivity. For data collection several methods and tools were used such as: questionnaire, checklist, sampling techniques, literature, archive, group discussion and observations. The research population of the study were the farmers who established shelterbelts around their farms while the research unit based on the individual farmers. The results of the study indicated that, the majority of the respondents were of old age and have attended education ranging from khalwa to university.

Also the findings of the study revealed that, shelterbelts in the study area were perceived as a useful and valuable assets, which provide a range of forest goods and environmental services such as: increasing of crop productions, reducing the damage of crops, leading to sustainable agriculture for income generation for local communities. Moreover, the study showed that, rural farmers developed a positive perceptions over time about the importance of shelterbelts and their management systems. Additionally, there were negative attitudes about forest policy and law. Also the study indicated that the farmers in the study area hold positive attitudes towards shelterbelts establishment and their protective role.

Despite negative attitudes towards the notion that shelterbelts bring birds, insects and rodents, they were interested in planting shelterbelts in their farms.

The study mentioned that grazing of shelterbelts in first years and inactivation of the law relating to shelterbelts were considered as main constraints. Moreover, protection of shelterbelts in the first years and activation of law were suggested to overcome these constraints.

The study recommended that : the forestry extension should develop programmes to involve youth and young farmers for the shelterbelts establishment and protection, and enforcement of forest policy and law.

## ملخص الدراسة

### دراسة آراء واتجاهات المزارعين عن الأحزمة الشجرية حول المزارع - ولاية القضارف - السودان

أجريت هذه الدراسة بولاية القضارف وهي تهدف لبحث آراء واتجاهات المزارعين عن إنشاء الأحزمة الشجرية حول المشاريع الزراعية تمثلت الأهداف التفصيلية في : التعرف على مستوى وعي المزارعين عن الأحزمة الشجرية وأهميتها ، التعرف على آراء المزارعين حول الأحزمة الشجرية ، التعرف على اتجاهات المزارعين حول الأحزمة الشجرية وكذلك التعرف على أثر الأحزمة في زيادة إنتاجية المحاصيل الزراعية. استخدم البحث عدد من الأدوات البحثية مثل: المسح الاجتماعي، الاستبيان، قائمة الأسئلة، تقنيات العينة، الأدبيات والأرشيف، مجموعات النقاش بالإضافة للملاحظة مثل مجتمع البحث المزارعين الذين لديهم أحزمة شجرية حول مزارعهم ، كما أن وحدة البحث هي المزارع . أوضحت الدراسة أن معظم المزارعين من ذوي الأعمار الكبيرة ، كما أنهم تلقوا تعليماً تراوح بين الخلو والجامعة. أوضحت الدراسة أن المزارعين بالمشاريع الزراعية ينظرون للأحزمة الشجرية كمورد قيمة ذات فائدة كبيرة وتوفر كثير من الفوائد الاجتماعية والاقتصادية والبيئية مثل: زيادة إنتاجية المحاصيل الزراعية وتقليل أضرارها وتقود إلى الاستدامة ، كما أنها توفر دخلاً للمزارعين .

كما أوضحت الدراسة بأن المزارعين بتلك المشاريع لزراعية كونوا آراء ونظرات إيجابية تجاه الأحزمة الشجرية ونظم إدارتها بالرغم من النظرة السلبية تجاه سياسة وقوانين الغابات والأحزمة الشجرية.

أوضحت الدراسة أيضاً أن للمزارعين اتجاهات إيجابية نحو إنشاء وحماية الأحزمة الشجرية وبالرغم من الاتجاه السلبي للمزارعين بأن الأحزمة الشجرية تجلب الطيور والحشرات والقوارض إلا أنهم لديهم الرغبة في زراعتها حول مزارعهم.

أوضحت الدراسة بأن رعي الأحزمة في السنوات الأولى بالإضافة لعدم تفعيل قانون الأحزمة الشجرية يمثلان المشاكل الرئيسية التي تواجه زراعة الأحزمة حول المزارع. كما أوضحت الدراسة بأن حماية الأحزمة في السنوات الأولى بالإضافة لتفعيل قانون الأحزمة يمثلان الحلول الرئيسية لإنشاء وحماية الأحزمة بمنطقة الدراسة.

كما أوصت الدراسة بأن يقوم الجهاز الإرشادي بإعداد برامج تستوعب صغار المزارعين في إنشاء وحماية الأحزمة الشجرية حول المزارع ، بالإضافة لتفعيل سياسة وقوانين الغابات.

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## **List of abbreviations**

RAS	Rahd Agricultural Scheme
FP	Forest Plantations
GNP	Growth National Products
FNC	Forest National Corporation
UNHCR	United Nation High Commission for Refugees
FAO	Food and Agricultural Organization of the United Nations
UNEP	United National Environment Programme