

# DEDICATION

*I would like to dedicate this study*

*To my all brilliant family members.*

*To my friends.*

*To my students.*

*To the rural women in Sudan.*

*With my regards.*

## ACKNOWLEDGEMENT

*Thank Allah the Creator. The Eternal for all his Goodness, Generosity and Faithfulness.*

*I would like to thank Sudan University of Science and Technology and the Faculty of Agricultural Studies for offering me this precious opportunity to obtain the Ph.D degree.*

*I am grateful to my helpful supervisors for their valuable advices and encouragements, the Main supervisor Prof.Mahir Salih Suliman, and the Co.supervisor Dr. Elshifa Ali Merghani.*

*My great gratitude go to my all colleagues in the Agricultural Extension and Rural Development Division , special thanks go to Ust. Bakri and Dr.Omiama . My thanks extended to my colleagues in the Sudan Turkish Continuous Training Centre Hisham, Amna and Maani , my special thanks go to Hisham.M.Osman for his precious assistant in data entering in the computer and analysis. My thanks extended also to Dr. Hisham for his valuable assistant in data analysis.*

*I am grateful to my colleagues in the FNC offices in Shendi and Elmatamma for their great assistance during the field survey namely Eltoma, Fathia, Eshraga, Hoida , Fatima and Mamoon. I am grateful to the rural women in the surveyed villages for their willingness and great helpfulness .*

*My great gratitude to my cousin Mahjoob H. Saad and his son Saad for their unlimited and valuable support before and during the field survey.*

*I am most grateful and proud of my brilliant family ,special thanks go to my Parent who keep encourage me emotionally and take care of my daughters. I am grateful to my sisters and brother for their great support. My grateful and special thanks to my husband who also keep encourage and support me emotionally. My sincere grateful and special thanks go to my three daughters who keep encourage and support me, thanks for their assistance in typing my thesis.*

*God bless them all and keep them safe.*

## Abbreviations

**CSO:** Civil Society Organization  
**FAO:** Food and Agricultural Organization  
**FNC:** Forests National Corporation  
**FPCS:** Family Preservation Community Services  
**GAD:** Gender and Development  
**GATT:** General Agreement on Tariffs and Trade  
**GDP:** Gross Domestic Products  
**IMD:** Institute for Management Development  
**IMF:** International Monetary Fund  
**ILO:** International Labours Organization  
**IRD:** Integrated Rural Development  
**NGOs:** Non-Governmental Organizations  
**NICs:** National Investment Institute  
**OPEC:** Organization of the Petroleum Exporting Countries  
**RD:** Rural Development  
**RSA:** Rehabilitation services Administration  
**SAP:** Structural Adjustment Programme  
**SOS:** SOS Sahel International  
**UN:** United Nations for Development  
**UNDP:** United Nations Development Programme  
**UNEP:** United Nations Environmental Programme  
**UNESCO:** United Nations Educational, Scientific, and Cultural Organization  
**UNRISD:** United Nation Research Institute for Social Development  
**USA:** United States of America  
**VEAs:** Village Extension Agents  
**VES:** Village Extension Scheme  
**WID:** Women in Development  
**WFS:** Women's Feature Service  
**WFP:** The Women's Forestry Project  
**WRI:** World Resources Institution  
**IT:** Information Technology  
**UNICEF:** United Nation Children Fund  
**HIV:** Human Immunodeficiency Virus  
**AIDS:** Acquired Immune Deficiency Syndrome  
**HAC:** Humanitarian Affairs Committee

## **Abstract**

The northern parts of Sudan experienced the desertification problem since the 1980s. The SOS Sahel International initiated a women's forestry programme (WFP) to support integrated rural development endeavours in the River Nile State. The main aim of the study was to scrutinize the experience of the WFP through answering the following question: to what extent the project enhanced rural development endeavor in the area?

The study was carried out in Shendi and Elmatamma areas during July-August 2013.

A combination of qualitative and quantitative data were collected from (12) villages to obtain all required data for the study. The primary data was collected from (100) village women using direct interview through the questionnaire, as well semi-structured interviews were carried out with village extension agents (VEAs), village leaders, and school teachers. Furthermore, focus group discussions were conducted with women in every village, with men in 4 villages, with WFP and FNC staff in Shendi and Elmatamma offices. The secondary data was collected from the (WFP) documents, reports and other relevant publications in Shendi FNC office and SOS Sahel office in Khartoum. The collected data was analyzed deploying the Statistical Package for Social Science (SPSS).

The study revealed that women in study areas have a potential to work in forestry and other rural development activities since their traditions were respected. The project opted for the Training of Trainers approach (TOT) as a mean to effective women participation. The small scale and low risk income generating initiative applied was much appreciated by the women and help to consolidate their increased confidence and initiatives. The character of the change brought about was mainly of psychological nature. However, social and to a lesser extent economic impacts were accredited. The school programme faced several constraints.

The findings of this study revealed the following results:

- All respondents (100) received training on home nurseries, tree planting, vegetable productions and improved stoves, while 68% out of them received training in income generating activities.
- 93% of respondents affirmed that the training courses they involved in were very useful.

- 51% of respondents admitted that puppet shows was the most effective extension tool for raising all community environmental awareness.
- 79% of respondents pointed out that they produced and planted forestry, fruits and ornamental species inside their houses.
- 39% of respondents affirmed that they sell the surplus of seedlings produced to their relative farmers to be planted as windbreaks, and to the women in non- project villages.
- 85% of respondents admitted that they produced vegetables with the project for home consumption mainly.
- 74% of respondents affirmed that the project environmental impact reflected in the thousands of trees planted in the project area which reducing wind and dust to some extent and improving the environment in general.
- 81% of respondents pointed out that the project impact on their social life was reflected in strengthen of relationship between the group members and exchange visits with other groups, forming charity sandouks, forms co-operatives and think of other needed projects to develop the area.
- 81% of respondents declared that the project benefits them economically as they benefit from vegetables productions, reduction of fuelwood consumption ,uses of tree branches for cooking, while 30% benefits from marketing of spaghetti and surplus of seedlings.

Based on the findings the following recommendations were suggested:

\*To activate the Women's Voluntary Forestry Association (WVFA) that was formed by the end of the project and registered with HAC to continue and modernize the activities according to the rural women's needs and aspirations.

\* To incorporate a promising income generating activities with the forestry programmes as an objective, thus integrated development programmes are more effective in rural areas and much appreciated and desired by rural women inorder to generalize the benefits and secure development sustainability.

\* For the school programme to be more effective it needs to be considered as a project on its own right, to which sufficient staff, time and budget are allocated.

## مستخلص الدراسة

واجهت الأجزاء الشمالية في السودان مشكلة التصحر منذ ثمانينات القرن الماضي . منظمة الساحل العالمية ابتدرت مشروع نسوي للغابات (WFP) لتعزيز مساعي التنمية الريفية فى ولاية نهر النيل. هدف الدراسة الرئيسي البحث فى تجربة مشروع الغابات النسوي من خلال الإجابة على السؤال التالي : إلى أي مدى ساهم المشروع فى تحقيق التنمية الريفية بالمنطقة ؟

أجريت الدراسة فى منطقتي شندي والمتمة خلال الفترة يوليو - أغسطس ٢٠١٣. تم جمع البيانات كمياً ونوعياً من عدد ١٢ قرية من قرى المشروع وذلك للحصول على كل المعلومات المطلوبة للدراسة .تم جمع البيانات الأولية من عدد ١٠٠ امرأة باستخدام المقابلة المباشرة وذلك من خلال الإستبيان ،بجانب إجراء المقابلات شبه المنظمة مع كل من مرشحات القري ( VEAS )، قيادات القري ومعلمى مدارس الأساس (٤) مدارس.تم كذلك إجراء مجموعات النقاش مع النساء فى كل القري التى تم إختيارها للدراسة(١٢) قرية ،كذلك تم تنظيم مجموعات النقاش مع الرجال فى(٤) قري، مع مرشحات الهيئة القومية للغابات (مرشحات مشروع الغابات النسوي سابقاً).

تم جمع المعلومات الثانوية من وثائق المشروع،التقارير المتنوعة، والمطبوعات ذات الصلة بمحلية شندى ومكتب منظمة الساحل العالمية بالخرطوم.

تم تحليل البيانات باستخدام الحزمة الإحصائية للعلوم الإجتماعية (SPSS) .

توصلت الدراسة إلى أن النساء فى منطقة الدراسة لديهن طاقة و رغبة للعمل فى مجال الغابات و الأنشطة التنموية الأخرى طالما أن هنالك احترام للعادات السائدة فى المنطقة . اختار المشروع نظام تدريب المدربين (TOT) كطريقة لمشاركة فعالة للنساء . مبادرة المشاريع المدرة للدخل مقدره جدا من قبل النساء وقد عززت ثقتهن بأنفسهن وفتحت آفاق لمبادرات أخرى .ملامح التغيير الذى تم هو تغييراً نفسياً بصورة رئيسية . كذلك هنالك أثر إجتماعي ثم أثر إقتصادي بصورة أقل . واجه البرنامج المدرسى معوقات متعددة.

توصلت الدراسة للنتائج الآتية:

- كل المبحوثات (١٠٠) تلقين تدريباً فى كيفية إنشاء ومتابعة المشاتل المنزلية الجماعية ، زراعة الشتول وحمايتها ومتابعتها داخل وخارج المنازل ، إنتاج الخضروات والمواقد المحسنة ، بينما ٦٨% منهن تلقين تدريباً فى المشاريع المدرة للدخل.

- ٩٣ % من المبحوثات أكدن أن الدورات التدريبية التي شاركن فيها كانت مفيدة جداً.
- ٥١ % من المبحوثات أوضحت أن المسرح الريفي كان أكثر وسيلة فعالة لرفع الوعي البيئي بين كل شرائح المجتمع .
- ٧٩ % من المبحوثات أشرن إلى أنهن أنتجن وزرعن شتول غابات ،فاكهة و زينة داخل منازلهن.
- ٣٩ % من المبحوثات أوضحت أنهن قمن بتسويق الفائض من الشتول المنتجة لأقربائهن المزارعين ليقوموا بزراعتها كمصدات رياح للمزارع. كما تم تسويق فائض الشتول أيضاً للنساء من القرى المجاورة التي لم يشملها المشروع.
- ٨٥ % من المبحوثات أكدن أنهن قمن بإنتاج خضروات مع المشروع للإستهلاك المنزلي بصفة رئيسية.
- ٧٤ % من المبحوثات أكدن أن الأثر البيئي للمشروع تمثل في آلاف الأشجار التي زرعت في المنطقة والتي أدت إلى تقليل حدة الرياح والأتربة ومن ثم تحسين البيئة بصورة عامة.
- ٨١ % من المبحوثات أشرن إلى أن تأثير المشروع في الحياة الاجتماعية تمثل في تقوية العلاقات بين أعضاء المجموعة وتبادل الزيارات مع المجموعات الأخرى ،بالإضافة إلى تكوين صناديق خيرية وتعاونيات لخدمة المجتمع. كذلك التفكير في مشاريع أخرى مستقبلية لتطوير المنطقة.
- ٨١ % من المبحوثات أوضحت أن تأثير المشروع الإقتصادي تمثل في الإستفادة من الخضروات المنتجة بالمنازل ،تقليل إستهلاك حطب الوقود ، تسويق فائض الشتول والخضروات ، بالإضافة للمشاريع المدرة للدخل.

بناءً على نتائج الدراسة فيما يلي بعض التوصيات :

- \* تفعيل جمعية النساء الطوعية للغابات (WVFA) والتي تم تكوينها وتسجيلها بمفوضية العون الإنساني بنهاية المشروع لمواصلة وتحديث الأنشطة تبعاً لإحتياجات وطموحات المرأة الريفية.
- \* تضمين مشاريع مدرة للدخل واعدة مع مشاريع الغابات كهدف من ضمن أهداف المشروع وذلك لفعالية مشاريع التنمية المتكاملة في المناطق الريفية وهي مرغوبة جداً من قبل النساء وذلك لتعميم الفائدة وضمان إستمرارية التنمية .
- \* البرنامج المدرسي لكي يكون أكثر فعالية يجب إعتباره مشروعاً مستقلاً ويخصص له عدد كافي من الموظفين والوقت وكذلك تخصص له ميزانية.

## Table of Contents

No	Subject	Page
A	Dedication	I
B	Acknowledgement	II
C	Abbreviations	III
D	English Abstract	IV
E	Arabic Abstract	VI
F	Table of contents	VIII
G	List of Tables	XII

### Chapter One Introduction

1-1	Introduction	1
1-2	Research Problem Statement	2
1-3	Research Rationale	2
1-4	Research Objectives	3
1-5	Organization of the Study	3

### Chapter Two Literature Review

2-1	Development Concepts	4
2-2	Development Decades	5
2-3	Theories of Development	6
2-3-1	Modernization Theory	6
2-3-2	Dependency Theory	7
2-3-3	State Theory	9
2-3-4	World Systems Theory	11
2-4	Economic Development Theory	12
2-5	Economic Growth and Theory	13
2-6	Focused Development	14
2-6-1	Introduction	14
2-6-2	Social Development	14
2-6-3	Human Development	15
2-6-4	Community development	16
2-6-5	Political Development	17
2-6-6	Sustainable Development	17
2-6-7	Eco-Development	19
2-6-8	International Development	20
2-7	Rural Development	21
2-8	Participation	22
2-9	Rural Development Approaches	24



2-9-1	The Basic Needs Approaches
2-9-2	Capacity Building Approach
2-9-3	Community Based Rural Development
2-9-4	Integrated Rural development
2-9-5	The Intermediate Technology Approach
2-9-6	Rural Social Animation
2-10	Non Governmental Organizations
2-11	Gender and Development
2-12	Forests for People
2-12.1	Women and Forestry
2-13	Development Projects and Programmes
2-14	Training for Development
2-15	Extension and Rural Development
2-16	SOS Sahel International
2-16-1	Introduction
2-16-2	Involvement of Women with VES
2-16-3	The Women's Forestry Project(WFP)
2-16-4	Training Courses Methodology
2-16-5	Trained VEAs Starting their Work
2-17	WFP Activities Implemented by Women
2-17-1	Home Group Nurseries
2-17-2	Home Vegetable Gardens
2-17-3	Improved Stoves
2-17-4	Income Generating Activities
2-17-5	School Programme
2-17-6	Forming Women's Voluntary Forestry Association

### **Chapter Three**

#### **Research Methodology**

3-1	Study Area	44
3-2	Population of Study	44
3-3	Sample Selection Procedure	45
3-4	Data Collection Procedure	47
3-5	Data Analysis	48

### **Chapter Four**

#### **Results and Discussion**

4.	Introduction	49
4-1	Personal characteristic of Respondent	49
4-1-1	Age	49
4-1-2	Education Level	50
4-1-3	Marital Status	50
4-1-4	Family Size	51
4-1-5	Family Income	51
4-1-6	Family Main Income Source	52
4-1-7	Respondent Private Income	52

4-1-8	Private Income Sources	53
4-2	The Project(WFP)	53
4-2-1	Source of Hearing about WFP	53
4-2-2	Village Extension Agents(VEAs) Selection	54
4-2-3	Women's Groups Formation	55
4-2-4	Implementation of Training Courses	56
4-2-5	WFP Training courses main Contents	56
4-2-6	Quality of Training Courses	57
4-3	Changing Communities' Environmental Awareness	58
4-3-1	The Most Effective Extension Tool Used by(WFP)	58
4-3-2	Perceptions of Desertification Causes	59
4-3-3	Role of Trees in Desertification Control	59
4-3-4	Perceptions About Trees Benefits	60
4-4	Home Group Nurseries	61
4-4.1	Types of Trees Produced and Planted by Women	61
4-4-2	Surplus Seedlings Management	62
4-4-3	Women's Experiences of Selling Seedlings	63
4-4-4	Distribution of The Profit	63
4-4-5	HomeNurseries Activities Follow Up	64
4-4-6	Planting Trees in Public Institutes	64
4-5	Home Vegetables Gardens	65
4-5-1	Establishment of Vegetables Gardens with WFP	65
4-5-2	Location of Growing Vegetables Gardens	66
4-5-3	Perceptions Concerning Benefits of Vegetables Gardens	67
4-5-4	Vegetables Production Obstacles	68
4-6	Improved Stoves	69
4-6-1	Improved Stoves Using	69
4-6-2	Differences Between Improved and Traditional Stoves	69
4-7	Spaghetti Production Programme	70
4-7-1	Participation in Spaghetti Production Programme	70
4-7-2	Continuation of Spaghetti Production Programme	71
4-8	Schools' Programme	71
4-9	Project Activities Follow Up and Monitoring	72
4-9-1	Activities Follow up by the VEAs	72
4-9-2	Activities Follow up by the WFP Permanent Staff	72
4-10	The Socioeconomic and Environmental Impact of WFP	73
4-10-1	The Project's Environmental Impact	73
4-10-2	The Project's Social Impact	74
4-10-3	The Project's Economical Impact	75
4-11	The Project Scale Up	76
4-11-1	Respondents feedback about Project Scale Up	76

## **Chapter Five**

### **Summary of Results, Conclusions, and Recommendations**

5-1	Results	77
5-2	Conclusions	79
5-3	Recommendations	80
5-3-1	For the Government of Sudan	80
5-3-2	For FNC	80
5-3-3	For NGOs	80
5-3-4	For FNC and NGOs	81
5-3-5	For Rural Women	81
	References	82
	Appendixes	

## List of Tables

No	Subject	Page
Table (3-1)	The Villages Selected for the Study	46
Table (3-2)	No. of Household Selected from each Village	47
(4-1)	Personal Characteristics of Respondents	49
Table (4-1-1)	Frequency distribution and percentage of respondents by age	49
Table (4-1-2)	Frequency distribution and percentage of respondents by educational level	50
Table (4-1-3)	Frequency distribution and percentage of respondents by marital status	50
Table (4-1-4)	Frequency distribution and percentage of respondents by family size	51
Table (4-1-5)	Frequency distribution and percentage of respondents by family income rate (in Sudanese pounds)	51
Table (4-1-6)	Frequency distribution and percentage of respondents by family main income source	52
Table (4-1-7)	Frequency distribution and percentage of respondents according to availability of own income	52
Table (4-1-8)	Frequency distribution and percentage of respondents according to their own income sources	53
(4-2)	Women's Forestry Project (WFP)	53
Table (4-2-1)	Frequency distribution and percentage of respondents by source of hearing about (WEP)	53
Table (4-2-2)	Frequency distribution and percentage of respondents by their opinion about (VEAs) selection from their villages to attend training courses in Shendi town	54
Table (4-2-3)	Frequency distribution and percentage of respondents by the methods of groups formation	55
Table (4-2-4)	Frequency distribution and percentage of respondents by agencies who implement the training courses	56
Table(4-2-5)	Frequency distribution and percentage of respondents by the training courses main contents.	56
Table (4-2-6)	Frequency distribution and percentage of respondents by the usefulness and sufficiency of training courses they received	57
(4-3)	Changing Communities' Environmental Awareness	58
Table (4-3-1)	Frequency distribution and percentage of respondents by their ideas about the most effective extension tool that used by WFP to raise communities environmental awareness	58
Table (4-3-2)	Frequency distribution and percentage of respondents by their perceptions of desertification causes	59
Table (4-3-3)	Frequency distribution and percentage of respondents by their opinion concerning role of trees in desertification control	59
Table (4-3-4)	Frequency distribution and percentage of respondents by their perception about trees benefits	60
Table(4-4)	Home Group Nurseries	61
Table (4-4-1)	Frequency distribution and percentage of respondents by types of trees they produced and planted	61
Table (4-4-2)	Frequency distribution and percentage of respondents by their management of their surplus trees	62

Table (4-4-3)	Frequency distribution and percentage of respondents based on their experience of selling seedlings from their nurseries	63
Table (4-4-4)	Frequency distribution and percentage of respondents by their distribution of the profit between the nursery members	63
Table (4-4-5)	Frequency distribution and percentage of respondents by following up their nursery activities	64
Table (4-46)	Frequency distribution and percentage of respondents who planted trees in public institutes in their villages	64
(4-5)	Home Vegetable Gardens	65
Table (4-5-1)	Frequency distribution and percentage of respondents who establish home vegetables gardens with WFP	65
Table (4-5-2)	Frequency distribution and percentage of respondents by the location where they establish vegetables gardens	66
Table (4-5-3)	Frequency distribution and percentage of respondents by their perceptions concerning benefits of vegetables gardens	67
Table (4-5-4)	Frequency distribution and percentage of respondents by vegetable production obstacles	68
(4-6)	Improved stoves	69
Table (4-6-1)	Frequency distribution and percentage of respondents who participated in using improved stoves during the project time	69
Table (4-6-2)	Frequency distribution and percentage of respondents who recognized differences between the improved stoves and traditional ones	69
(4-7)	Spaghetti Production Programme	70
Table (4-7-1)	Frequency distribution and percentage of respondents who participated in spaghetti production programme	70
Table (4-7-2)	Frequency distribution and percentage of respondents continuing spaghetti production	71
(4-9)	Projects Activities Follow Up and Monitoring	72
Table (4-9-1)	Frequency distribution and percentage of respondents by their activities follow up by the VEAs	72
Table (4-9-2)	Frequency distribution and percentage of respondents by the activities follow up held by the WFP	72
(4-10)	The Socioeconomic and environmental Impact of WFP	73
Table (4-10-1)	Frequency distribution and percentage of respondents by their viewpoints concerning the project's environmental impact	73
Table (4-10-2)	Frequency distribution and percentage of respondents by their views concerning the project's impact on their social life	74
Table (4-10-3)	Frequency distribution and percentage of respondents by their viewpoints concerning the project's economical impact on their social life	75
Table (4-11)	Frequency distribution and percentage of respondents by their feedback for the project replication in other similar areas in the River Nile state and in Sudan	76