UNIVERSITY OF NAIROBI

THE ROLE OF INDIGENOUS COMMUNITIES IN ENVIRONMENTAL CONFLICT MANAGEMENT IN THE HORN OF AFRICA: A CASE STUDY OF JONGLEI CANAL.

BY

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NOVEMBER, 2016
DECLARATION

I declare that this proposal is my original work and has not been presented for another academic award in any other University or Institution.

Signature  ------------------------- Date -------------------------------------

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This Research Project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I dedicated this project to my family for their full supports that they has given me during the preparation of this project.
ACKNOWLEDGEMENTS

I thank Almighty God first for his favor, strength and renewed mercies over my life that enabled me complete this study. This study reflects the support and input from many people. I owe a great deal to my supervisor, I am so grateful for his consistent guidance and support. He was patient with my twists and turns providing encouragement, technical suggestions and ideas for continuous improvement. I was impressed by his ability to read all my sentences and correct the flow of the study. I learnt a lot from his experience and expertise and could not have asked for another supervisor.
ABSTRACT

The study examines the role of indigenous community in environmental conflict management by taking Jonglei Canal in South Sudan as a case study. The study begins by providing a background to environmental conflicts in Jonglei Canal, then reviews the methods used by the indigenous community to resolve environmental conflicts in broadly. It then specifically looks at the role of indigenous communities in environmental conflict resolution in Jonglei Canal, South Sudan and also evaluates the opportunities and challenges faced this indigenous community. The study hypothesized that 1) there is a significant relationship between the role of indigenous communities and environmental conflict resolution and 2) that the continuation of the environmental conflict in Jonglei Canal is partly attributed to weak Conflict Prevention, Management and Resolution (CPMR).

The study was conceptualized using the Dual concern model of conflict resolution and draws largely on primary data. The study results indicate that that there are indigenous rules and ways of preventing and managing the environmental conflicts with the key method being reconciliation. The community is united through cultural shows aimed at fostering intercommunity peace. Sharing of environmental resources, however, still poses a challenge as evidenced in the emergence of environmental conflicts. The study discusses this challenge relating to environmental conflicts and provides recommendations on areas of improvement in solving these conflicts in Jonglei Canal. Among the recommendations include the need to promote community resource management peace initiatives, establish youth/economic empowerment programmers including in the areas of agriculture, continued disarmament by the government of South Sudan which processes that should be done in a more humane way, respect for the rule of law and development of relevant legislation. It also calls for improved security in the community by the increasing the number of law enforcers and the need to promote public education on resource-based conflicts through awareness campaigns.
LIST OF ABBREVIATIONS

AWOAU; Anglican Women Organizations in Aguleri and Umuleri
AYC: Amahoro Youth Club
CBO: Community Based Organization
CPRM: Conflict Prevention and Resolution Mechanism
DDR: Disarmament, Demobilization, and Reintegration
GoSS: Government of South Sudan
NBD: Nile Basin Discourse (NBD)
NGO: Non-Governmental Organization
SPLA/M: Sudan People's Liberation Movement/Army
# TABLE OF CONTENTS

DECLARATION.......................................................................................................................... ii  
DEDICATION.......................................................................................................................... iii  
ACKNOWLEDGEMENTS ......................................................................................................... iv  
ABSTRACT ............................................................................................................................... v  
LIST OF ABBREVIATIONS ...................................................................................................... vi  
LIST OF FIGURES .................................................................................................................. x  
LIST OF TABLES .................................................................................................................... xi  
CHAPTER ONE: INTRODUCTION AND BACKGROUND ................................................. 1  
  1.1 Introduction and Background to the Study ................................................................. 1  
  1.2 Statement of the Research Problem ........................................................................... 4  
  1.3 Objectives of the Study ............................................................................................... 4  
  1.4 Research Questions ..................................................................................................... 5  
  1.5 Study Hypotheses ........................................................................................................ 5  
  1.6 Justification of the Study ............................................................................................. 5  
    1.6.1 Academic Justification .......................................................................................... 5  
    1.6.2 Policy Justification .............................................................................................. 5  
  1.7 Conceptual Framework ............................................................................................... 6  
  1.8 Research Methodology ............................................................................................... 6  
    1.8.1 Research Design .................................................................................................. 6  
    1.8.2 Target population ............................................................................................... 6  
    1.8.3 Description of Sample Size and Sampling Procedure ....................................... 7  
    1.8.4 Description of Data Collection Instruments ....................................................... 7  
    1.8.5 Validity ............................................................................................................... 7  
    1.8.6 Reliability ............................................................................................................ 7  
    1.8.7 Description of Data Collection and Analysis Procedures ................................. 8  
    1.8.8 Data Presentation ............................................................................................... 8  
    1.8.9 Chapter Outline ................................................................................................. 8
CHAPTER TWO: LITERATURE REVIEW ON INDIGENOUS COMMUNITIES AND ENVIRONMENTAL CONFLICTS

2.1 Introduction .............................................................................................................. 10
2.2 Example of Environmental Conflicts in South Sudan ............................................. 10
  2.2.1 Land Conflicts .................................................................................................. 10
2.3 Methods Used by Indigenous Community to Resolve Environmental Conflicts ...... 11
  2.3.1 Mediation ......................................................................................................... 11
  2.3.2 Reconciliation .................................................................................................. 12
  2.3.3 Arbitration ........................................................................................................ 12
  2.3.4 Rehabilitation ................................................................................................. 12
2.4 Interventions to Bring Harmonious Coexistence ...................................................... 13
2.5 Ways in Which Community Exercise Their Conflict Resolution Roles.................... 14
2.6 Challenges Facing Community in Conflict Resolution .......................................... 16

CHAPTER THREE: THE ROLE OF INDIGENOUS COMMUNITIES IN ENVIRONMENTAL CONFLICT MANAGEMENT IN JONGLEI CANAL .............. 18
3.1 Introduction ................................................................................................................ 18
3.2 Background Information ......................................................................................... 18
  3.2.1 Gender of the Respondents ........................................................................... 18
3.3 Environmental Conflicts ......................................................................................... 18
  3.3.1 Types of Environmental Conflicts ................................................................. 18
  3.3.2 Presence of Rules to Prevent Environmental Conflicts ................................ 19
3.4 Ways of Managing Environmental Conflicts ......................................................... 20
  3.4.1 Presence of Ways of Managing Environmental Conflicts .............................. 20
  3.4.2 Methods Used in Managing Environmental Conflicts ................................. 21
3.5 Community Brought Together ................................................................................ 22
  3.5.1 Community Togetherness .............................................................................. 22
  3.5.2 Approaches Used in Bringing the Community Together ............................... 22
3.6 Roles Exercised by Indigenous Communities in Managing Environmental Conflicts . 23
3.7 Opportunities Present in Solving Environmental Conflicts .................................... 24
3.8 Challenges Encountered in Resolving Environmental Conflicts ........................... 25
CHAPTER FOUR: INDIGENOUS COMMUNITIES AND ENVIRONMENTAL CONFLICT RESOLUTION IN JONGLEI CANAL ................................................................. 27

4.1 Overview of the Jonglei Canal Situation ........................................................................... 27
4.2 Traditional Environmental Conflict Resolution Methods Used by Indigenous Communities .................................................................................................. 27
4.3 Role of the Community in Disarmament ........................................................................... 28
4.4 Community Based Organization (CBO) and Environmental Conflict Management ... 28
4.5 Role of Women in Conflict Resolution in Jonglei Canal ....................................................... 29
4.6 The Role of Community Farming in Managing the Conflict .............................................. 30

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS ........ 31

5.0 Introduction ................................................................................................................... 31
5.1 Summary of discussions ................................................................................................. 31
5.2 Conclusion ..................................................................................................................... 33
5.3 Recommendations .......................................................................................................... 33
  5.3.1 Continued Disarmament by the Government of South Sudan ..................... 33
  5.3.2 Respect for the Rule of Law and Development of Relevant Legislations........ 34
  5.3.3 Improved Security ................................................................................................. 34
  5.3.4 Public Education on Conflict .............................................................................. 34

BIBLIOGRAPHY ................................................................................................................. 35

APPENDICES ..................................................................................................................... 37

Appendix I: Questionnaire ................................................................................................. 37
LIST OF FIGURES

Figure 1.1: Map of Jonglei Canal ................................................................. 3
Figure 3.1: Gender of the respondents .......................................................... 18
Figure 3.2: Environmental Conflicts ............................................................. 19
Figure 3.3: Presence of Rules to Prevent Environmental Conflicts .................... 19
Figure 3.4: Presence of ways of managing environmental conflicts .................... 20
Figure 3.5: Community Coming Together ..................................................... 22
LIST OF TABLES

Table 1.1 Reliability Measures ........................................................................................................ 8
Table 3.1: Methods Used to Resolve Conflicts ............................................................................. 21
Table 3.2: Bringing the community together .................................................................................. 23
Table 3.3: Community roles ........................................................................................................... 24
Table 3.4: Opportunities .................................................................................................................. 25
Table 3.5: Challenges ....................................................................................................................... 26
CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1 Introduction and Background to the Study

Communities constantly encounter differences with one another regarding environmental issues that results into conflicts. Conflict resolution is an art of ending conflicts through set methods that are accepted by all the parties involved in the conflict. Communities around the world have over the years played a very crucial role in fostering peace that has affected them. This is one of the methods that have been employed by most governments and NGOs in ensuring that there is a peaceful coexistence. Communities in Rwanda led by community leaders have been of great help in conflict resolution. In many African countries that have been faced with series of conflicts such as Uganda and Sudan, Holloway, further asserts that those communities have been able to foster peace in conflict areas through the use of various methods such as arbitration, and mediation.

In the global perspective, many countries have striven to handle the conflicts that occur within their jurisdiction, the most common global countries where most conflicts occur in countries within the Middle East and Arabic countries. One of the countries in the Arab world that has been hard hit by conflict is Pakistan. The study further stated that the methods that were used by the communities in Pakistan included dialogue that involved all parties aimed at finding a middle ground that led to a peaceful coexistence between the two groups.

The African continent has experienced numerous conflicts. Country like Burundi has experienced conflicts in the past since its independence in 1962, which occasionally occurs; this influenced the communities affected by conflict to come together with the aim of resolving the differences that led to the emergence of the conflict. Formation of the Amahoro (‘Peace’) Youth Club (AYC) by the community youths, there has been great steps made in

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reconciling the wrangling communities and people. The center has been able to engage the youths in peace and reconciliation activities³.

The conflict that is experienced in Jonglei Canal, South Sudan is of different kinds. The best known is cattle raiding conflict, and other forms of conflicts within the region are related to the scarcity of resources and abduction of children. The reality is that Jonglei Canal conflict is deeply complex characterized by many isolated cases, but often combination of conflicts tends to blur the common thinking about the conflicts. This conflict has left damages to the country through destruction of properties, slow economic growth and loss of lives. The constant reoccurrence of conflicts in the Jonglei canal in South Sudan has forced the community to take the initiative in solving the conflicts⁴. This has seen the community engage in many conflict resolution activities. It’s against this research background that this study aims at assessing the role of indigenous communities in environmental conflict management in the horn of Africa: a case study of Jonglei canal.

The Jonglei Canal is a proposed project that was started but has never been completed. The main purpose of the project was to divert water through that Sudd wetlands located in the South Sudan. This was to ensure that more water is delivered to both Sudan and Egypt for the purposes of agriculture. The project has had potential threats to the people living within the area. There has been the collapse of fish industry, drying of the grazing land and also a reduction of rain. This has made the areas to be characterized by the scarcity of resources hence fuelling conflict among communities found in the region.

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Figure 1.1: Map of Jonglei Canal

Source: UN
(https://www.google.com/search?q=Jonglei+Canal+map+united+nations&espv=2&biw=1366&bih=667&tbm=isch&tbo=u&source=univ&sa=X&ved=0CCMQsARqFQoTCMXF5v65tcCFQW0GgodprUBCA#tbm=isch&q=Jonglei++canal)
1.2 Statement of the Research Problem
The presence of effective conflict resolution mechanisms in any country or a society ensures that all the conflicts that arise are well handled so that they don’t blow out of proportion. An ideal conflict resolution environment is when the communities during conflicts take an initiative of resolving the conflicts themselves. For this ideal situation to occur, the community needs to be equipped with environmental conflict resolution skills. Despite the importance of peace and the role of the community in solving conflicts in Jonglei canal, there are still cases of conflicts within the area. The conflicts are tribal based with the major tribes in the canal fighting to control the water resource. These series of conflicts have seen population being displaced, people losing their lives and slow growth of the economy since the conflict has been able to scare potential investors.

The occurrence and re-occurrence of conflicts at the Jonglei canal can be attributed to the ineffective ways that the community is using to solve the constant environmental conflicts. In Jonglei canal, conflicts are a common occurrence, and this has led to the cropping of many initiatives aimed at ending the conflict by the communities found in the area. There exists limited literature regarding the roles of indigenous communities in solving environmental conflicts in Jonglei Canal, South Sudan. This study therefore aimed at filling the literature gap that exists by assessing the role of indigenous communities in environmental conflict management: a case of Jonglei Canal, South Sudan.

1.3 Objectives of the Study
The main objective of the study was to assess role of indigenous communities in environmental conflict resolution.

The study was guided by the following specific objectives:

1.3.1 Examine the methods used by indigenous communities to resolve environmental conflicts in the Horn of Africa
1.3.2 To establish the Role of indigenous communities in environmental conflict resolution in Jonglei Canal, South Sudan
1.3.3 To evaluate the environmental conflict resolution opportunities and challenges faced by the indigenous community in Jonglei Canal, South Sudan
1.4 Research Questions
The study answered the following questions:

1.4.1 What are the methods used by indigenous communities to resolve environmental conflicts in the Horn of Africa?

1.4.2 What is the role of indigenous communities in environmental conflict resolution in Jonglei Canal, South Sudan

1.4.3 What are the environmental conflict resolution opportunities and challenges faced by the indigenous community in Jonglei Canal, South Sudan?

1.5 Study Hypotheses

1.5.1 There is a correlation between the role of indigenous communities and environmental conflict resolution.

1.6 Justification of the Study

1.6.1 Academic Justification

Studies that have been conducted around the world regarding environmental conflict resolution, but there are few study such as the one conducted by Oche that focused on the role played by communities in conflict resolution. This study filled the gap that exists by clearly bringing out the role of the community centers in Jonglei canal.

The study will form part of reference for future scholars who will be carrying out studies in the same field.

1.6.2 Policy Justification

The study came up with recommendations on methods used by indigenous community to resolve environmental conflicts, ways in which communities have been brought together through conflict resolution ways in which communities exercise their roles and on challenges in conflict resolution. The recommendations will be used by policy makers that include the

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government and the Non-Governmental organization on how to support the indigenous community in managing the environmental conflicts that it faces.

1.7 Conceptual Framework

This study was based on the Dual concern model. It is about that individuals preferred method of dealing with. The model indicates that group members always tend to have a balance of their concern, which they have to satisfy individual needs before any other need. Avoidance conflict style, this is conflict resolution style, which is characterized by various actions such as involving jokes whenever a conflict arises. Yielding conflict style involves taking into consideration the welfare of other people who are involved in the conflict. Competitive conflict style involves being concerned for one’s needs and also to some extent showing concerns to other people faced by the same conflict. Cooperation conflict style involves caring for the pro-social and pro-self-behavior. Conciliation conflict style, this is a style that used when it comes to ensuring that needs of an individuals are met as well as that of others.

1.8 Research Methodology

1.8.1 Research Design

A case study was applied in the study. Case study research method was applied since it helps the research her in investigating contemporary phenomenon found within real situations in life. Case study research has been found to excel in terms of bringing the understanding of a complex issue or object and in some cases it has been linked with the extension of experience or addition of strength to what has been found by previous studies.

1.8.2 Target population

Target population is an entire group object, people and events that are part of the study. The target population for the study comprises of indigenous communities that resided in Jonglei Canal in South Sudan during the period when the study was being conducted.

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8 Ibid
1.8.3 Description of Sample Size and Sampling Procedure
The sampling design that was used by the study was purposive sampling method. This method will allow the researcher to select the respondents who participated in the study. The researcher sampled a total of 60 respondents to represent the entire indigenous population in Jonglei Canal.

1.8.4 Description of Data Collection Instruments
The study used questionnaires as the main data collection instrument to collect primary data. Questionnaire was used because they collecting information in a quick manner. The method was suitable since the information was needed in writing and within a short period. In this study, the respondents were given ample time to data analysis. The questionnaire included both structured and semi-structured questions. This allowed the respondents to answer more regarding other issues not captured.

1.8.5 Validity
The content and face validity of the research instruments was done with advice of the supervisor in the University for Scrutiny and advice. The questionnaire was improved based on the opinion that was given by the supervisor. Each question was adjusted to meet the intentions of the objectives.

1.8.6 Reliability
Pilot study was done at Kajiado, Kajiado County. The study employed Cronbach’s alpha coefficient in measuring the questionnaire’s internal consistency. The following scale was used to determine reliability of the research instruments as presented in Table 1.1.

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Table 1.1 Reliability Measures

<table>
<thead>
<tr>
<th>Cronbach's alpha</th>
<th>Internal consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\alpha \geq 0.9$</td>
<td>Excellent</td>
</tr>
<tr>
<td>$0.8 \leq \alpha &lt; 0.9$</td>
<td>Good</td>
</tr>
<tr>
<td>$0.7 \leq \alpha &lt; 0.8$</td>
<td>Acceptable</td>
</tr>
<tr>
<td>$0.6 \leq \alpha &lt; 0.7$</td>
<td>Questionable</td>
</tr>
<tr>
<td>$0.5 \leq \alpha &lt; 0.6$</td>
<td>Poor</td>
</tr>
<tr>
<td>$\alpha &lt; 0.5$</td>
<td>Unacceptable</td>
</tr>
</tbody>
</table>


1.8.7 Description of Data Collection and Analysis Procedures

Data collection involves the selection of the subjects and gathering of the information from the subjects. The process ensures that there is smooth collection of data. The study will rely on the primary data collected using questionnaires.

The researcher also wrote a letter to the respondents explaining to them the study and asking for their consent that was attached on the questionnaire. The researcher personally distributed the questionnaires to the respondents and wait until the respondent complete filling the questionnaire then collected it before proceeding to the next respondent.

Data analysis included testing of a research hypothesis using data collected. The analysis employed the use of quantitative techniques, which includes descriptive. Descriptive statistics includes presentation of the findings in terms of frequencies, percentages and means to analyze and summarize the data.

1.8.8 Data Presentation

Study results were presented in form of tables and charts with frequencies.

1.8.9 Chapter Outline

The study was comprised of five chapters as started below:

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1.8.9.1 Chapter One: Introduction and Background
This chapter reviews the background and brief introduction to the study. The section also discusses problem statement, research objectives and questions, research hypotheses as well as the academic and policy justification of the study, and the conceptual framework. The first chapter also has elaborated on the research methodology and justification of the choice of the methodology used.

1.8.9.2 Chapter Two: Methods Used By the Indigenous Community to Resolve Conflicts
This chapter reviewed the literature on the methods that are used by indigenous communities in resolving environmental conflicts.

1.8.9.3 Chapter Three: Presentation of Findings
This chapter is presentations of the results based on the data collected using questionnaires. The findings are presented in the form of frequency table and charts.

1.8.9.4 Chapter Four: Opportunities and Challenges Facing the Community
This chapter offers an overview of the opportunities and challenges that faces the indigenous community regarding conflict resolution. The section is comprised of the opportunities and challenges based on the data collected. From the analyzed data, this chapter discusses the opportunity and challenges in greater detail.

1.8.9.5 Chapter Five: Summary, Conclusion and Recommendations
This chapter is the culmination of the study. It summarizes the study chapters, gives a conclusion of the chapters and offers recommendations based on the study.
CHAPTER TWO: LITERATURE REVIEW ON INDIGENOUS COMMUNITIES AND ENVIRONMENTAL CONFLICTS.

2.1 Introduction
Like the rest of Africa, Sudan, as a country, was a product of imperialism and colonialism. Some of the West African states today were once amalgamated as foreign outposts called French Sudan ruled directly from Paris. Through struggle, they gradually disengaged from that artificial colonial appellation to become distinct, independent African States. Sudan was a vast territory by far the largest in Africa. In the South alone, over 200 languages are spoken and most of the major religions in the world, if not all, are represented there, in one form or another. Part of the factors which led to two of the longest civil wars playing out in Sudan over a combined period of 56 years has to do with way the British colonialist, using imperial expediency put a boundary over a vast territory that could have formed several nation States, if they had been allowed to determine their destiny in freedom. Looking at the economic wealth and potential industrial might of South Sudan, given its, land and natural resources such oil deposits, gold, iron, timber and so on and human capital, there was no hesitation that South Sudan more than any other part of the world, meets the requirements of a viable State.11

2.2 Example of Environmental Conflicts in South Sudan
2.2.1 Land Conflicts
Like any other post-conflict countries, South Sudan faces unique land tenure issues as it seeks to build its country from scratch. The serious land tenure issues include poor access to land, security of the tenure and legitimacy. Repeatedly in South Sudanese rights to land, the returnees have historical and tribal ties to the land from which they have been displaced. The change of land ownership in South Sudan has profound economic and social impacts. The returnees and IDPs need secure land to rebuild their lives. The land tenure for the resettlement and reintegration of returnees and IDPs in South Sudan has consequently resulted in conflicts among the people. Post-conflict societies tend to remain polarized for a

period of time with sections of the population mistrusting and fearing other sections of the population\textsuperscript{12}.

The hostility during the Sudanese civil war was between SPLA and other militias associated with North, and this identity has failed to disappear immediately among the communities of South Sudan after the peace deal signed in 2005. Thus was complicated with the land tenure and land allocations, because even if there are stable tenures to be given to resettle refugees, other militias who are still in support of government in North would not be satisfied with whatever the SPLM/A is doing because they may not be interested with peace in the region. Besides the plight of returnees and IDPs, land tenure issue South Sudan is surrounded by an influx of investors, both local and foreign, and by the fact that many think an increase in private investment in land and forests is a way for the country to diversify its oil dependent economy, and promote food security and stimulate rural development in the country. Unfortunately, the past experiences made the people of South Sudan view investment as a form of land grabbing and destruction to their environment. The world’s attention to the South Sudan society is how the new country intends to shift to democracy, governance and the rule of law. It is critical that land tenure issues are lagging this country behind to achieve democracy. Achieving accepted land tenure would help the people to ensure a lasting civil peace and good governance where by this country would never be the same\textsuperscript{13}.

\textbf{2.3 Methods Used by Indigenous Community to Resolve Environmental Conflicts}

\textbf{2.3.1 Mediation}

Mediation is the process that involves the settling of disputes through the use of a third party member. This process involves proper understanding of the issue that has led to the conflict. The mediator is often expected not to be on any side of the parties involved. There is an emphasis by Green that the mediator is supposed to perfect the knowledge of the circumstances leading to the dispute\textsuperscript{14}.

\textsuperscript{12} Ibid
\textsuperscript{13} Ibid
2.3.2 Reconciliation

Reconciliation is often a long process that is done by conflicting communities\textsuperscript{15}. Ron asserts that reconciliation should begin with an initial relationship. A pre-existing link among the parties involved should exist.\textsuperscript{16} Reconciliation is a process that often takes place after the conflicts has ended. It is aimed at ensuring that the conflicting community lives in harmony after the conflict has ended. The communities that had conflicted are urged to forgive and forget so as to start afresh\textsuperscript{17}.

2.3.3 Arbitration

Arbitration can be defined as a situation in which there is an arbitrator who comes up with a solution to the conflict\textsuperscript{18}. An arbitration is many cases often involves the settlement of a case outside the court based on the agreement made by the parties involved. This has been case when it comes to solution to most of the environmental conflicts facing communities and more so in Africa\textsuperscript{19}.

2.3.4 Rehabilitation

Rehabilitation is simply a process that involves an individual undergoes changes in order to adopt to a new life. When it comes to the environmental conflicts, those who have been involved in it tend to rehabilitate themselves and find other means of livelihood that does not result into conflicts\textsuperscript{20}.

Rehabilitation often requires a focus on psychosocial conditions, family support among other services to the individuals. Education is significant during rehabilitation\textsuperscript{21}. The rehabilitation

\begin{itemize}
\item \textsuperscript{16}Ibid
\item \textsuperscript{17}Forsyth, R. (2009). \textit{Group Dynamics} (5th ed.). Boston, MA: Wadsworth
\item \textsuperscript{19}Ibid
\end{itemize}
is to ensure that the violent experiences are eliminated from an individual. It creates a beginning for healing among the individuals who are reforming\textsuperscript{22}.

\textbf{2.4 Interventions to Bring Harmonious Coexistence}

Communities have different ways of coming together, and this is a critical aspect that ensures the initiatives of the community towards cohesion are successful. In Rwanda, the communities after the genocide engaged in series of activity of bringing the communities together. The community centers started series of sporting events, music festivals and education on peaceful coexistence that brought the communities together. Similarly, communities in Liberia during the post-Taylor regime were tasked with bringing the communities together. The community embarked on series of sporting activities throughout the communities that included football and volleyball that united the country at large as people come together\textsuperscript{23}.

In another study conducted in Ethiopia on how communities come together during post-conflict period found out that there are various ways of that the community under the study fosters community cohesion. The study main target population was the community elders, political leaders and religious leaders from the community. The study found out that the most common practice of bringing the community together was through cultural events where the community members participate in a variety of cultural activities such as songs, dancing and wrestling. This according to the respondents of the study ensured that the wrangling communities come together for a common purpose hence putting aside their differences\textsuperscript{24}.

A similar assessment was done in Kenya, the study was conducted in among communities in Baringo and Pokot, and the study was focused on how the two wrangling communities have been able to foster cohesion among them. The study found out that the communities decided to locate the resource that was an important cause of conflict in a central place that could not be claimed by any community. Thus, encouraging the use of the resource by the two

\textsuperscript{22} Ibid
communities without any of them claiming that it belongs to them\textsuperscript{25}. Similarly, a study was conducted in Kenya after the post-election violence of 2007/2008. It was found that communities especially in Rift Valley that were hard hit by the violence initiated the process of reconciliation through the use of religious leaders. This involved bringing the community together through church services where peace and reconciliation were preached. Each of the community asked for forgiveness for any wrongdoing during the election violence period, and this strengthens the community as they were able to live in harmony from that period\textsuperscript{26}.

2.5 Ways in Which Community Exercise Their Conflict Resolution Roles

In 1995 elite members of Ugandan communities that had experienced conflicts for a longer period, started the initiative of solving conflicts\textsuperscript{27}. The community centers started by the community exercise their role through various initiatives such as playing a role in the decisions of the government that touch on peace and conflict resolution, the community center took part in formulation of the of the conflict resolution training course that was fronted by the government\textsuperscript{28}.

Study conducted in Rwanda found out that within the communities that experienced conflicts, a section of the people, particularly those who had lost out the struggle for equal allocation of the resources, which partly sustained the conflicts, that their involvement in the conflicts stifled development in their communities\textsuperscript{29}. This prompted some of them to rethink their role and began to push for amicable settlement of the conflicts. In doing so, it was found that they were mindful of the unimpressive record of western methods of conflict resolution in handling the conflicts and so adopted mainly the traditional instruments of conflict mitigation to achieve their purpose\textsuperscript{30}. The Friendship initiators committed themselves to


\textsuperscript{26}Ndayizigiye, B. (2009). Humiliation and violent conflicts in Burundi. Kampala: East African Publishers


\textsuperscript{28}Ibid


\textsuperscript{30}Ibid
settling the land dispute in regard to the said Otuocha and avoided further expensive and unnecessary litigation over the said land\textsuperscript{31}.

Another way in which communities exercise their roles is through the formation of women groups that are aimed at conflict resolution within the community. The following women organizations were identified as channels for articulating women’s efforts at restoring peace among communities in Nigeria\textsuperscript{32}. The Oluokala in Umuleri; AWDA; Anglican Women Organizations in Aguleri and Umuleri; Catholic Women Organizations in Aguleri and Umuleri and Otu Umuada (organization of women born in the same lineage and community) of Aguleri and Umuleri. These organizations approached their assignment through several ways but not the discredited court option. They adopted traditional forms of conflicts resolution in pursuance of their objective\textsuperscript{33}.

These organizations are frequently organized fasting and prayer sessions in which they petitioned God to intervene the crisis. At other times, the organizations set aside their religious differences and held joint prayer sessions in their communities. Christian women who were displaced by the war and sought refuge in other places also found time to mobilize and organize religious sessions\textsuperscript{34}. Also, Oluokala and AWDA identified with the practice of fasting and praying in their desperate search for peace. As the tempo of the war subsided, and many families who had fled their communities began to return, the frequency of the prayers was intensified. Church services were partially restored, and several of these organizations started to book for special mass and church services in which prayers were offered for the return of peace in Aguleri and Umuleri\textsuperscript{35}.

Another influential women group in Nigeria is Umuada Association. Most communities in Igboland have Umuada Association. The association commands lots of respect in the community of birth or origin of its members. So influential is the group that quarrels and

\textsuperscript{31} Ibid
\textsuperscript{33} Ibid
\textsuperscript{35} Ibid
disputes between individuals, husbands and wives, families and clans and villages are referred to Umuada for settlement. In the event of disagreement erupting over very important issues affecting members of the community or misunderstanding between groups, Umuada can take it upon itself to resolve the matter. Its decision on any matter is final and binding on the affected parties\textsuperscript{36}.

2.6 Challenges Facing Community in Conflict Resolution

Community centers face various challenges daily in as they exercise their roles. A study conducted in northern Uganda found out that most of the community centers have a financial challenge. The study asserted that the community centers need finance to carry out their roles such as educating the communities on conflict resolution, most of the community centers depend on donor funding that sometimes is not enough\textsuperscript{37}. According to the insight on conflict report, lack of government support is a major problem facing community centers in exercising their roles, this is cited as lack of political good will from the political class as some of the conflicts are political hence lack of support\textsuperscript{38}. Similar study conducted by Maja (2001) found out that mostly of the community centers especially the ones in Africa face various challenges with the most common challenge facing community centers in DRC Congo is lack of political and community support, the study found out that the community members are not fully supporting the community center’s initiatives, the study found that this was due to lack of information on the roles of the community center\textsuperscript{39}.

Assessment of African sub-regional countries in a conflict resolution context identified that communities in the countries under study faced various challenges in their conflict resolution initiatives. Study observed that the most prominent challenge facing the community in conflict resolution was lack of government support\textsuperscript{40}. The study attributed the lack of government support to failure of government security structure. A similar study conducted

\textsuperscript{36}Bayazit, M. (2003). \textit{Should I stay or should I go? Predicting team member’s intent to remain in the team.} Small Group Research: Sage Publications
\textsuperscript{38}Goldfien, J. (2007). \textit{What if the lawyers have their way? An empirical assessment of conflict strategies and attitudes toward mediation styles.} Ohio State Journal on Dispute Resolution (Ohio State University Moritz College of Law)
\textsuperscript{39}Ibid
found out that lack institutionalized crisis prevention and management mechanism was a major challenge resolving conflicts by communities in northern Uganda, as a result regional community involvement in conflict resolution has been ad hoc and not based on the required standards\textsuperscript{41}.

A study\textsuperscript{42} conducted in Northern Nigeria on participation of the community in conflict resolution found out that the communities in the region face various challenges. The main challenge according to the study was lack of knowledge on conflict resolution skills among the community members. The study assessed the knowledge of the community elders on conflict resolution and found out that 65\% of them had no idea on various aspects of conflict resolution. The study concluded that since communities are integral part in conflict resolution, there should be community education on conflict resolution either by the NGOs or the government\textsuperscript{43}.

According to study conducted by Oche in Nigeria found out that conflict resolution propagated by the community was not effective, the study also found out the community faced various challenges that hinder it in effectively resolving the conflicts that existed. One of the challenges facing the community was lack of community participation, the study analysis indicate that some community members did not participate in conflict resolution activities and this greatly affected the process, another challenge identified by the study was ineffective community leaders, this contributed to poor conflict resolutions as some of them according to the study were corrupt thus favoring one side when resolving conflict\textsuperscript{44}.

\textsuperscript{41} Agena, G. (2011). The African Union (AU) and Mediation Efforts in the Crisis in Darfur Region of Sudan. Nigerian Journal of Social Sciences
\textsuperscript{43} Ibid
CHAPTER THREE: THE ROLE OF INDIGENOUS COMMUNITIES IN ENVIRONMENTAL CONFLICT MANAGEMENT IN JONGLEI CANAL

3.1 Introduction
This chapter presents a critical analysis and discussions of the roles that are being played by indigenous communities in solving the environmental conflicts in the Horn of Africa and specifically in Jonglei Canal in South Sudan.

3.2 Background Information
3.2.1 Gender of the Respondents
The study sought to found out the respondents’ gender. The study results are presented in figure 3.1

![Gender of the Respondents](image)

Figure 3.1: Gender of the respondents

Source: field data (2016)
The study results indicate that 54% were female while 46% were male. This is reveals hat majority of the respondents were female.

3.3 Environmental Conflicts
3.3.1 Types of Environmental Conflicts
The study aimed at finding out the types of environmental conflicts that exist. Findings are presented in figure 3.2
Figure 3.2: Environmental Conflicts

Source: field data (2016)

The study results indicate that 65% if the respondents mentioned land conflicts, 74% mentioned water conflicts and 54% mentioned grazing land conflicts.

3.3.2 Presence of Rules to Prevent Environmental Conflicts

The aimed at finding the presence of rules aimed at preventing environmental conflicts. The findings are presented in figure 3.3

Figure 3.3: Presence of Rules to Prevent Environmental Conflicts

Source: field data (2016)
The study findings reveal that 76% of the respondents mentioned that there are rules aimed at preventing the environmental conflicts, 14% mentioned that there are no rules while 10% indicated that they do not know if there are rules. Of the people who mentioned that there are rules, they mentioned that there are traditional rules that have been put in place to ensure there are no environmental conflicts.

3.4 Ways of Managing Environmental Conflicts

3.4.1 Presence of Ways of Managing Environmental Conflicts

The study sought to find out if there are ways of managing environmental conflicts. The findings are presented in figure 3.4

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>72%</td>
</tr>
<tr>
<td>No</td>
<td>28%</td>
</tr>
</tbody>
</table>

**Figure 3.4: Presence of ways of managing environmental conflicts**

*Source: field data (2016)*

The study results indicate that 72% mentioned that there are ways of managing the environmental conflicts while 28% mentioned that there are no ways of managing the environmental conflicts.
3.4.2 Methods Used in Managing Environmental Conflicts

The study sought to find out if there are methods in place to manage environmental conflicts. Study results are presented in table 3.1

**Key:** 5 - Strongly Agree, 4 - Agree, 3 - Undecided, 2 - Disagree, 1 - Strongly Disagree, T: Total, M: Mean

<table>
<thead>
<tr>
<th>Methods used</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>T</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>The community mostly uses arbitration method to solve environmental conflicts.</td>
<td>6</td>
<td>8</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>28</td>
<td>3.3</td>
</tr>
<tr>
<td>%</td>
<td>21</td>
<td>29</td>
<td>29</td>
<td>3</td>
<td>18</td>
<td>100</td>
<td>66</td>
</tr>
<tr>
<td>The community mostly uses rehabilitation method to solve environmental conflicts.</td>
<td>1</td>
<td>19</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>28</td>
<td>2.3</td>
</tr>
<tr>
<td>%</td>
<td>3</td>
<td>68</td>
<td>7</td>
<td>11</td>
<td>11</td>
<td>100</td>
<td>46</td>
</tr>
<tr>
<td>The community mostly uses reconciliation method to solve environmental conflicts.</td>
<td>8</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>28</td>
<td>3.6</td>
</tr>
<tr>
<td>%</td>
<td>28</td>
<td>36</td>
<td>18</td>
<td>7</td>
<td>11</td>
<td>100</td>
<td>72</td>
</tr>
<tr>
<td>The community mostly uses mediation method to solve environmental conflicts.</td>
<td>1</td>
<td>19</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>28</td>
<td>3.4</td>
</tr>
<tr>
<td>%</td>
<td>3</td>
<td>98</td>
<td>7</td>
<td>11</td>
<td>11</td>
<td>100</td>
<td>68</td>
</tr>
</tbody>
</table>

**Source: field data (2016)**

The study results indicate that 66% of the respondents who mentioned that there are conflict resolution methods mentioned that the community mostly uses arbitration method to solve environmental conflicts. 46% mentioned that the community mostly uses rehabilitation method to solve environmental conflicts. 72% mentioned that the community mostly uses reconciliation method to solve environmental conflicts and 68% of them mentioned that the community mostly uses mediation method to solve environmental conflicts. These findings imply that the main method that is used to solve environmental conflicts in Jonglei Canal is reconciliation.

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3.5 Community Brought Together

3.5.1 Community Togetherness

The study sought to find out if the community has been brought together. Findings are presented in figure 3.5

![Community Togetherness](image)

**Figure 3.5: Community Coming Together**

Source: field data (2016)

The findings indicate that 64% of the respondents mentioned that there is community togetherness while 34% mentioned that there is no community togetherness\(^{46}\). These results indicate that majority of the community has been brought together.

3.5.2 Approaches Used in Bringing the Community Together

The study sought to establish ways the community has been brought together in Jonglei Canal. The findings are presented in table 3.2 below

**Key:** 5 -Strongly Agree, 4 -Agree, 3 -Undecided, 2 - Disagree, 1 -Strongly Disagree, T: Total, M: Mean

\(^{46}\) Ibid
Table 3.2: Bringing the community together

<table>
<thead>
<tr>
<th>Ways the Community has been Brought Together</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>T</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>The community has been brought together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>through sporting activities.</td>
<td>F</td>
<td>15</td>
<td>12</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>43</td>
<td>34</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>100</td>
</tr>
<tr>
<td>The community has been brought together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>through education on peaceful coexistence.</td>
<td>F</td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>17</td>
<td>26</td>
<td>23</td>
<td>26</td>
<td>100</td>
<td>54</td>
</tr>
<tr>
<td>The community has been brought together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>through promoting equitable share of resources.</td>
<td>F</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td>6</td>
<td>9</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>26</td>
<td>3</td>
<td>29</td>
<td>17</td>
<td>26</td>
<td>100</td>
</tr>
<tr>
<td>The community has been brought together</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>through cultural shows.</td>
<td>F</td>
<td>14</td>
<td>15</td>
<td>3</td>
<td>-</td>
<td>3</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>40</td>
<td>43</td>
<td>9</td>
<td>-</td>
<td>9</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: field data (2016)

The study results show that 76% of the respondents felt that the community has been brought together through sporting activities. 54% mentioned that the community has been brought together through education on peaceful coexistence. 56% of the respondents mentioned that promotion of equitable distribution of resources has brought the population together and 82% of the respondents mentioned that cultural shows have been able to bring the community together. These findings imply that cultural shows are the main activity that has been able to bring the community together effectively.

3.6 Roles Exercised by Indigenous Communities in Managing Environmental Conflicts

The study sought to find out the roles that are being exercised by the indigenous communities in managing the environmental conflicts. Findings are presented in table 3.3

Key; 5 -Strongly Agree, 4 -Agree, 3 -Undecided, 2 - Disagree, 1 -Strongly Disagree

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The study results indicate that 42% of the respondents felt that as a community they exercise their role in conflict resolution. The community takes part in community peace initiatives. 54% of the respondents mentioned that they exercise their role as a community through advocating for fair resource allocations. 74% of the respondents mentioned that the community exercises its role through fostering intercommunity peaceful initiatives. Also the community exercises its role through conflict resolution education as mentioned by 50% of the respondents. The findings can be interpreted to mean that that the main role-played by the community is through fostering intercommunity peaceful initiatives.

3.7 Opportunities Present in Solving Environmental Conflicts
The study sought to find out the available opportunities present in solving environmental conflicts. Findings are presented in table 3.4

---

48 Field data (2015)
### Table 3.4: Opportunities

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is presence of religious leaders who lead peace initiatives.</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Community centers are available helping in peace initiatives.</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>There is an initiative by the local people to end conflicts.</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>There is presence of community courts to solve land conflicts.</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>There is presence of government law enforcers.</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>There are international NGOS</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>There is an ongoing disarmament process.</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>36</td>
<td>100</td>
</tr>
</tbody>
</table>

**Source:** field data (2016)

The study results indicate that 17% (6) of the respondents indicated that one of the opportunities that exists is the presence of religious leaders who spearhead peace initiatives. 14% responded that there are community centers that are helping in peace initiatives. 19% of the respondents mentioned that there is an initiative by the local people to end the conflict. 17% of them indicated that there are community courts to solve land conflicts. 14% of the respondents mentioned there are government law enforcers. 8% had the opinion that presence of international NGOs and 11% indicated that there is an ongoing disarmament process. These findings imply that the main opportunities that exist in ending the Jonglei Canal conflict is the presence of community initiatives for peace.

### 3.8 Challenges Encountered in Resolving Environmental Conflicts

The research aimed at finding the challenges encountered in resolving environmental conflicts. Findings are presented in table 3.5

**Key:** 5 - Strongly Agree, 4 - Agree, 3 - Undecided, 2 - Disagree, 1 - Strongly Disagree

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49 Field data (2016)
Table 3.5: Challenges

<table>
<thead>
<tr>
<th>Challenges</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>T</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is lack of support by the communities</td>
<td>F</td>
<td>22</td>
<td>11</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>%</td>
<td>44</td>
<td>22</td>
<td>14</td>
<td>10</td>
<td>10</td>
<td>100</td>
<td>76</td>
</tr>
<tr>
<td>Sharing environmental resources is not well understood by the people</td>
<td>F</td>
<td>23</td>
<td>20</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>50</td>
</tr>
<tr>
<td>%</td>
<td>46</td>
<td>40</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>100</td>
<td>84</td>
</tr>
<tr>
<td>The government does not support management of the environmental conflicts</td>
<td>F</td>
<td>26</td>
<td>11</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>%</td>
<td>52</td>
<td>22</td>
<td>12</td>
<td>4</td>
<td>10</td>
<td>100</td>
<td>80</td>
</tr>
<tr>
<td>The community leadership is divided based on tribe, which hinders management of environmental conflicts</td>
<td>F</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>9</td>
<td>29</td>
<td>50</td>
</tr>
<tr>
<td>%</td>
<td>10</td>
<td>10</td>
<td>4</td>
<td>18</td>
<td>58</td>
<td>100</td>
<td>38</td>
</tr>
</tbody>
</table>

Study results indicate that 76% of the respondents mentioned that one of the challenges is lack of support by the communities. 84% mentioned that sharing environmental resources is not well understood by the people. 80% indicated that government does not support management of the environmental conflicts while 38% mentioned that community leadership is divided based on tribe which hinders management of environmental conflicts\(^{50}\). The findings imply that sharing environmental resources is not well understood by the people hence leading to the emergence of the environmental conflicts.

\(^{50}\) Field data (2016)
CHAPTER FOUR: INDIGENOUS COMMUNITIES AND ENVIRONMENTAL CONFLICT RESOLUTION IN JONGLEI CANAL

4.1 Overview of the Jonglei Canal Situation
The main cause of insecurity in the new state has been violence between different communities. Of South Sudan’s ten states, Jonglei is the most prone to inter-community and political conflicts, which have escalated since 1999. While these incidents primarily involve different ethnic communities, and they also occur among members of the same ethnic community. The United Nations Department of Safety and Security (UNDSS) account of intercommunity conflicts in Jonglei during 2010 showed that inter-ethnic conflicts pitted the Murle against the Dinka and the Murle against the Nuer. On the other hand, intra-ethnic conflicts pitted two Nuer sub-groups; the Lou against the Jikany51.

Among the 10 states of South Sudan, Jonglei is the largest and the home to 1.3 million people. It is also characterized by intercommoned violence due to the environmental conflicts of the region52. This chapter therefore covers the role that is played by the community in ensuring that conflicts are resolved within the Jonglei Canal.

4.2 Traditional Environmental Conflict Resolution Methods Used by Indigenous Communities
The process of environmental conflict management is culturally rooted within Jonglei Canal. There is a cultural difference that is being experienced in South Sudan when it comes to ethnic groups. The ethnic groups found in South Sudan each have a distinct way of solving conflicts. The roles of various groups such as the elders differ when it comes to conflict resolution among the ethnic groups in Jonglei Canal53.

There is the role of the customary courts within South Sudan which supplements the role played by the elders in solving conflicts as well as the role that is being played by the


51 Ibid

52 Ibid

religious leaders. Customary mediation is one of the ways in which the customary courts have been able to solve conflicts within South Sudan. The religious leaders often chair the mediations. However, in some cases any elder who is respectable can also chair the mediation process.\textsuperscript{54}

4.3 Role of the Community in Disarmament
In the year 2012 the government of South Sudan together with the communities living in Jonglei Canal had undergone a disarmament process that was initiated by the community through the support of the government. The community fully embraced the idea since they wanted peace. Through the participation and the roles that the community played, positive results have been yielded in terms of reducing the conflict\textsuperscript{55}.

Harff and Gurr, argue that civilian disarmament was not only accompanied by harassment, and beatings but also by killing, torture, and assault in many areas across the state. There has also been the disarmament of the police force. The challenges faced is that some of the members who are thought to have guns fled away, although the situation has been improved by the community as they have been able to pin point individuals within the state who have guns, and thus reducing the number of illegal arms within the Jonglei Canal\textsuperscript{56}. Thus the model of disarmament failed to address the conflict causes and threatened the lives of the civilians and their livelihoods and this was partly blamed for the lack of government involving the community in the processes.\textsuperscript{57}

4.4 Community Based Organization (CBO) and Environmental Conflict Management
Several non-state actors exist within the Nile basin but this research focuses basically on organizations spearheaded by the community because of the role they play in the region. CBOs are civil society nonprofit entities that operate within a specified community and are managed by the community in this case. These organizations are often run on a voluntary

\textsuperscript{54} Ibid
\textsuperscript{55} Ibid
\textsuperscript{57} Ibid
basis and are self-funded by members of the community especially those who are successful. They engage in activities that range from human rights to environmental and to development work. These organizations aid in opinion building in international affairs and act as implementing partners in the national context. Additionally, they act as managers and investors of utilities in the private sector. In a conflict situation, they play roles such as mediators, providers of humanitarian services and facilitators in the resolution and management of conflicts.

The lack of active community participation in project creation, that results from lack of participation of these non-state actors often leads to the failure of such projects. When CBOs and NGOs are not incorporated in project creation, project designs fail to integrate the communities, intricacies hence they cannot be fully implemented. In this case, conflict resolution negotiations have collapsed severally. Therefore, the role of the community in Non-state organizations in the region is imperative for peace programs and other developmental programs within the Nile river basin.

4.5 Role of Women in Conflict Resolution in Jonglei Canal

Women have their fingers on what is happening within the community in Jonglei Canal. They are the primary caretakers of the community families and thus their involvement in the building of peace within the community is crucial. Women play a major role when it comes to the prevention of conflicts and also in building the society after the conflict has ended. Women have been found to be selfless in South Sudan whenever there is a conflict and thus they are significant in any conflict resolution process within the region.

The women delegates in Jonglei Canal peace negotiations for example are often given respect for the commitment that they show when it comes to the management of conflicts in

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59 Ibid
61 Ibid
Jonglei Canal. In addition, women have been found to be in a position to cater for both parties during conflicts in terms of healing them and taking care of children who are from the other party of the conflict. During violent conflict women in Jonglei Canal are always many as compared to men affecting the family as well as community dynamics. Hence they have been able to take the initiative to end the conflict. Women form rival communities always held peaceful discussions.\(^{62}\)

4.6 The Role of Community Farming in Managing the Conflict

Young people in south Jonglei Canal have actively engaged in socioeconomic activities. This has made them to be effective agents of peace building and social stability in post conflict reconstruction. In any case, it has been found that when the youth are excluded and marginalized, they are vulnerable and tend to join armed rebellion and engage in civil wars. This has been the major problem with continued conflict in Jonglei Canal. Many of the community organizations with the help of international community organizations have helped the youth to engage in farming activities. This has been found to be effective since the youths are now peace ambassadors because they do not want their farms and produces to be destroyed. Communities that have engaged in farming have been found to live in peace and in a more cohesive manner. This is because the scramble for food resources has significantly reduced hence bringing the communities together\(^{63}\).

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\(^{62}\) Ibid
\(^{63}\) Ibid

30
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This study assessed the role of indigenous communities in environmental conflict management in the horn of Africa: a case study of Jonglei Canal. In order for the study to achieve its goal, there were four objectives that were developed. They were mainly to: examine the methods used by indigenous communities to resolve environmental conflicts in the Horn of Africa, establish the role of indigenous communities in environmental conflict resolution in Jonglei Canal, South Sudan, evaluate the environmental conflict resolution opportunities and challenges faced by the indigenous community in Jonglei Canal, South Sudan and to recommend areas of improvement in solving environmental conflicts in Jonglei Canal, South Sudan. The study had one hypothesis: There is a correlation between the role of indigenous communities and environmental conflict resolution.

These objectives and hypothesis were examined through the dual concern model of conflict resolution conceptual framework. This concept allowed the researcher in understanding the role of communities in environmental conflict resolution.

5.1 Summary of discussions

Chapter one provided the layout of the study and it started with a background to the study that pointed out the roles that have been played by communities when it comes to environmental conflict resolution. This involved cases studies in terms of global, regional and local perspective on how communities are involved in solving environmental conflicts within themselves. This chapter also had the statement of the problem that motivated the research. To this end, the chapter highlighted the study objectives, guiding questions and hypothesis through which the research was framed. Further, the section expounded on the conceptual framework by discussing in-depth the dual concern model of conflict resolution.

Chapter two undertook a comprehensive literature review on the methods used in solving environmental conflicts by various communities around the world. The chapter looked at mediation as a method of resolving conflicts. Here the study looked at how the method is effective in solving conflicts. Reconciliation is the second method that was reviewed in this
chapter. Here the study looked at the cycle that is involved in the reconciliation process. The third method of resolving conflicts that the study looked at was arbitration, and the last method of resolving conflicts that the study looked at was rehabilitation.

Chapter three dealt with issues related to Jonglei Canal in terms of the management of the environmental conflicts.

Chapter four presented a critical analysis and discussion based on the opportunities and challenges that exist in Jonglei Canal regarding conflict resolution. Regarding opportunities, the chapter covered various opportunities that exist as mentioned by the participants of the study. One of the opportunities that exist within the region is the presence of community lead initiatives to end the conflict. This includes the initiatives that are led by women. The study found out that family caretakers many cultures, women’s central role in the communal life makes their inclusion in peace building essential. Youth engagement in economic activities has also been cited in the chapter analysis as one of the community initiatives to end the conflict. This is because most of the conflicts are propagated by the youth who engage in cattle rustling. The presence of religious leaders is also another opportunity that exists in Jonglei Canal that can help reduce the conflict. This is because the chapter has discussed the fact that religious leaders have also been found in the study to play a crucial role in solving the conflicts. The presence of international NGOs that try to end the conflicts is an opportunity as indicated by the participants of the study. They have been effective in addressing needs of local people such as conflict resolution according to the analysis of the chapter. The ongoing disarmament process that is happening within the canal has also been mentioned by the participants of the study as being one of the opportunities to end the conflicts. The conflict in the area has been stimulated by the presence of civilians owning guns illegally.

64 Primary data
66 Primary data (2015)
The study found out that there are challenges in addressing the problem of environmental related conflicts in Jonglei Canal. The main challenge is the lack of community support for conflict resolution. Community plays a pivotal role in conflict. Lack if finance to implement peace initiatives is also a challenge that is facing people of Jonglei canal. Implementing peace initiatives such as community education on peace requires finances to buy them materials and also to facilitate the process. Lack of government support has been cited as one of the challenges facing conflict resolution in Jonglei canal. The government is the overall leadership in South Sudan and thus not supporting the conflict resolution initiatives is a major let down.

5.2 Conclusion
The study, therefore, confirmed the hypothesis and the linkage to the chapter that indeed community has a major role to play in resolving conflicts through the use of several methods. On the method of commonly used to solve conflicts, the study concludes that the community mainly uses reconciliation method. The community has been brought together through cultural shows that happen within the community. The community mainly exercises its role when it comes to conflict resolution through linking the wrangling community with the government for the purposes of solving conflicts. The main challenge that is facing the community when trying to solve the conflicts is the lack of the community support in the conflict process. Informing the community about the importance of conflict resolution has been concluded as the main solution to the challenge. The study also gave the indication that there are several opportunities that exist to solve the conflicts. The main opportunity is the initiatives that are driven by the local people in solving the conflict.

5.3 Recommendations
Based on the findings of this study, this section presents some recommendations that can improve environmental conflict resolution in Jonglei Canal, South Sudan.

5.3.1 Continued Disarmament by the Government of South Sudan
The government of South Sudan (Goss) must continue to increase its disarmament activities within the communities. This should be done in a more humane way and also include the
community for the purposes of achieving maximum results. The study analysis revealed that the reason for unsuccessful disarmament process is because the process is accompanied by beatings. Also, it involves favors in which tribes that are not in power are victimized during the process.

5.3.2 Respect for the Rule of Law and Development of Relevant Legislations
Based on the establishments of the study, most of the conflicts that are taking place in Jonglei Canal revolve around cattle rustling and abduction of the children. This has been a continuous way of life for the community for some time since there were periods during the civil war where there was no permanent authority to handle the matter. Thus, the study recommends that the government of South Sudan need to come up with strict legislations that can be able to curb the problem that is facing the community. This includes policies that can ensure that the rights of the children are protected and also legislations that ensure security for the cattle owned by people.

5.3.3 Improved Security
The conflict that is experience in Jonglei Canal is attributed to the fact that there has been an increase in cases of lawlessness. This is due to lack of sufficient law enforcers deployed within the region by the government. Hence, the study recommends that the South Sudan government should provide more and tough security measures by strengthening the police with the mobility, communication equipment.

5.3.4 Public Education on Conflict
The study has found that among the populations in the area, there is a limited knowledge of conflict resolution methods. Therefore, this study recommends that the government together with other partners should conduct a public awareness campaign aimed at impacting knowledge to the people on long-term effects of conflicts and also measures that curb the matter. This will help in changing their perception regarding conflicts hence ending it.

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BIBLIOGRAPHY


Goldfien, J. (2007). What if the lawyers have their way? An empirical assessment of conflict strategies and attitudes toward mediation styles. *Ohio State Journal on Dispute Resolution* (Ohio State University Moritz College of Law)


APPENDICES

Appendix I: QUESTIONNAIRE

Dear respondent,

My name is DENG GARANG AKECH DANIEL. I am pursuing a Master’s Degree in International Conflict Management from the Institute of Diplomacy and International Studies (IDIS) at the University of Nairobi (UoN) Nairobi, Kenya. I am conducting a research on “THE ROLE OF INDIGENOUS COMMUNITIES IN ENVIRONMENTAL CONFLICT MANAGEMENT IN THE HORN OF AFRICA: A CASE STUDY OF JONGLEI CANAL”

Thank you in advance for being part of this research. The information you will provide will be treated with high confidentiality and it will be strictly used only for academic purposes. Your participation in this exercise is highly appreciated.
INSTRUCTIONS

Kindly tick (√) where appropriate OR writes your response in the spaces provided.

SECTION A: PERSONAL INFORMATION

1) Sex: [ ] Male [ ] Female

SECTION B: RESEARCH QUESTIONS

1. What kind of conflicts exists between and among the communities in Jonglei Canal?
   Land conflicts [ ]
   Water related conflicts [ ]
   Grazing land conflicts [ ]
   Others (Specify) ______________________________

2. Are there any rules to prevent the above mentioned conflicts?
   a. Yes [ ]
   b. No [ ]
   c. I do not know [ ]

3. If your answer to question 2 is yes please explain what rules that have been carried out by the state authorities to prevent or curb the conflicts?

   .................................................................................................................................
   .................................................................................................................................
   .................................................................................................................................

4. Does the indigenous community have ways of managing the environmental conflicts?
   Yes [ ]
   No [ ]

If YES, Kindly indicate your response appropriately in the boxes given in regard to ways in which the community has been brought together

Key; 5 -Strongly Agree, 4 -Agree, 3 -Undecided, 2 -Disagree, 1 -Strongly Disagree

<table>
<thead>
<tr>
<th>Methods used</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>The community mostly uses arbitration in solving environmental conflicts</td>
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<tr>
<td>The community mostly uses rehabilitation in solving environmental conflicts</td>
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</tbody>
</table>
The community mostly uses reconciliation in solving environmental conflicts

The community mostly uses mediation in solving environmental conflicts

Others (Specify) ____________________________________________________________

5. Ways in which the indigenous communities have been brought together through conflict resolution

(a) Has the community been brought together?

Yes ( ) No ( )

(b) If your answer on 5a is yes, kindly indicate your response appropriately in the boxes given in regard to ways in which the community has been brought together

Key; 5 -Strongly Agree, 4 -Agree, 3 -Undecided, 2 -Disagree, 1 -Strongly Disagree

<table>
<thead>
<tr>
<th>Ways</th>
<th>5</th>
<th>4</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>The community has been brought together through peaceful ritual activities</td>
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<tr>
<td>The community has been brought together through peaceful forums</td>
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<td>The community has been brought together through fair resource allocation</td>
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<tr>
<td>The community has been brought together through elders of different indigenous communities</td>
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</table>

6. Ways in which indigenous communities exercise their roles in Jonglei Canal in managing environmental conflicts

Kindly indicate your response appropriately in the boxes given in regard ways in which community centers exercise their roles

Key; 5 -Strongly Agree, 4 -Agree, 3 -Undecided, 2 -Disagree, 1 -Strongly Disagree
### Ways of exercising roles

<table>
<thead>
<tr>
<th>Ways of exercising roles</th>
<th>5</th>
<th>4</th>
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<tbody>
<tr>
<td>The community takes part in community peace initiatives</td>
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<tr>
<td>The communality is involved in advocating for fair resource allocations</td>
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<tr>
<td>The community is involved in fostering intercommunity peaceful initiatives</td>
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<tr>
<td>The community is involved in conflict resolution education</td>
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</tbody>
</table>

7. **What opportunities are present in resolving environmental conflicts in Jonglei Canal?**

There is presence of traditional elders who lead peace initiatives [ ]
Community centers are available helping in peace initiatives [ ]
There are peaceful initiative programs by the local people to end conflicts [ ]
There is presence of traditional courts to solve land conflicts [ ]
There is presence of government law enforcers [ ]
There are international NGOS [ ]
There is an ongoing disarmament process by the Government of South Sudan [ ]
Others (Specify) ____________________________________________________________

7. **What are the challenges encountered in resolving environmental conflicts?**

(a) Kindly indicate your response appropriately in the boxes given in regard to challenges encountered in resolving the above conflicts

**Key:** 5 -Strongly Agree, 4 -Agree, 3 -Undecided, 2 - Disagree, 1 -Strongly Disagree

<table>
<thead>
<tr>
<th>Challenges</th>
<th>5</th>
<th>4</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>There is lack of support by the communities</td>
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<td>Sharing environmental resources is not well understood by the people</td>
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<tr>
<td>The government does not support management of the environmental conflicts</td>
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<tr>
<td>The community leadership is divided based on tribe which hinders management of environmental conflicts</td>
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