

Effect of oil reserves availability on cross-border conflicts of the disputed region of Abyei in two Sudans.

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ABSTRACT : Worldwide, conflicts between neighbouring countries have become a teething problem in the international diplomacy and policy arena. These are feared to escalate in the near future, since the world population is expected to hit 10 billion people by 2050. Against this backdrop, the current level of competition for resources is anticipated to grow manifold because of the pressing need to sustain additional mouths by then. Oil is a strategic resource that has fermented conflicts between countries sharing the resource. Despite this, the magnitude of the cross-border conflict between Sudan and South Sudan has not been documented. Thus, the study examined the effect of shared oil reserves in Abyei region on conflicts between Sudan and South Sudan. Quantitative data were collected with questionnaires and qualitative data with interviews and focus group discussion. Results indicated that Sudan and South Sudan have often conflicted over the oil reserves. Both quantitative and qualitative findings revealed that the conflicts are even anticipated to worsen in the near future, given the strategic advantage that the oil reserve bestows to either country. The study concluded that oil reserve conflicts are likely to ravage the livelihoods beyond what is seen or experienced currently, highlighting the need for concerted efforts to cease the existing hostilities between Sudan and South Sudan through principled dialogue.

KEYWORDS : Oil reserve, Conflict, Resources, Cross-border, Sudan, South Sudan, Livelihoods, Dialogue

I. INTRODUCTION

Across the globe, different resources are shared between countries (Hommer-Dixon, 2015; Lee et al., 2023). In Africa for example, dams are shared among riparian countries (Lee et al., 2023), lakes such as Lake Victoria (shared between Uganda, Kenya and Tanzania), the Nile River (between Uganda, South Sudan, Sudan and Egypt), oil (between South Sudan and Sudan) among others. In North America, part of the Great Lakes is shared between USA and Canada leading to institution of transboundary governance along these areas. The same situation exists in Asia where for example, several renewable natural resources are shared between Indonesia and Malaysia (Herdiansyah et al., 2014) as well as in Europe, where numerous protected areas related to biosphere have been designated (Lee et al., 2023). Alluding from this preamble, it is right to assert that conflicts over these resources bifurcating shared borders has become one of the age-old problems facing different regions worldwide (Bannon & Collier, 2003; Della Porta, 2017; Lee et al., 2023). These conflicts have become prevalent in regions with scarce resources or in territories counted as a resource (Gleditsch et al., 2004). Even in instances where there have not been any full-blown direct conflicts, there are several cross-border misunderstandings to do with hefty rents (Bannon & Collier, 2003). The worst-case scenarios of these conflicts are happening in Africa.

Africa is a hot spot for cross-border conflicts (Keyate, 2018; Ombara, 2021). The continent is endowed with plenty of natural resources (Erdogan, 2024; Kuttu et al., 2024; Manu et al., 2024; Ombara, 2021). Despite this richness, the continent has remained one of the world's poorest inhabited areas that usually relies on foreign relief in augmenting support for its insecure populations (Ombara, 2021). The dire underdevelopment situation in Africa is influenced by many factors among them population growth with growing dependency and pressure on the continent's resources and frequent resource related conflicts. In the broader African context, resource conflicts and territorial disputes have been observed in various regions (Collins, 2020). During the scramble for Africa in the late 19th and early 20th centuries, European powers sought to exploit the continent's resources, including land, minerals, and natural wealth. This led to creation of arbitrary borders that among others, never considered the ethnic and cultural complexities of the region, creating the foundation for future conflicts over resources and territorial disputes (Aleme, 2019). For instance, the scramble for Africa resulted in the

partitioning of the continent among European powers, disregarding traditional African boundaries and leading to tensions and conflicts between different ethnic groups. Mulindwa (2020) condemned this game for fermenting interstate tensions since the independence euphoria and argues that the “Bismackian” artificial boundaries created by the colonialists in the process of sharing their spoils from Africa in the Berlin Conference largely accounts for why cross-border hostilities were pasted on the face of the African continent. Additionally, the exploitation of Africa's natural resources, such as oil, by foreign powers and multinational corporations has often resulted in economic inequalities and fueled conflicts over resource control. While the said scramble and partition sowed seeds of cross-border conflicts in competition for natural resources, even in the present time, the curving of new borders between newly created states from the former countries has shown that competition for natural resources is a continuous challenge and will spill into the future, following the exemplar of Abyei in North African states of Sudan and South Sudan.

Abyei region is shared between Sudan and South Sudan. The two countries were one country before July 2011 when the Southerners gained their independence and became the newest country in the world. The historical background of cross-border conflicts and resource availability in this region can be traced back to Sudan's independence from British colonial rule in 1956 (Cotula et al., 2019). At that time, Abyei's ownership remained a contentious issue, with both the Northerners (Sudan) and the Southerners (South Sudan) claiming rights to the region. It is worth mentioning at this stage that the Northerners inhabitants of Abyei Area are mostly nomads identified as the Misserya tribe, migrating from Sudan into Abyei during dry season and the reverse seasonal movement witness their movement out of Abyei in the onset of the rainy season. Whilst the Southerners (Ngok Dinka) are considered as the indigenous population as they are leaving in Abyei throughout the seasons. The Misserya and the Ngok Dinka are the two major tribes populating Abyei Area. After years of civil war, the Comprehensive Peace Agreement (CPA) was signed in 2005, which provided a framework for power-sharing and addressed the issue of Abyei's status (Deng, 2011). However, the implementation of the CPA faced significant challenges, including disagreements over resource sharing and the demarcation of boundaries, resulting in ongoing tensions and clashes. In 2008, the conflict in Abyei escalated when the Sudanese government deployed its armed forces and forcibly displaced thousands of Ngok Dinka people, who predominantly inhabit the region (Feyissa, 2011). This displacement further intensified the cross-border conflicts and raised international concerns about the humanitarian situation in the area. Efforts were made to resolve the dispute through a referendum to determine Abyei's fate, scheduled to take place alongside the 2011 referendum on South Sudanese independence (Feyissa, 2011). However, disagreements over voter eligibility and other issues led to the postponement of the Abyei referendum, leaving the region's status unresolved and the potential for future conflicts over resources.

II. PROBLEM STATEMENT

The disputed region of Abyei, located between Sudan and South Sudan, faces significant challenges concerning resource availability and cross-border conflicts (Mengistu, 2020). In an ideal situation, the region's resources would be effectively managed and shared, promoting peaceful coexistence and sustainable development (Merara, 2020). However, the current realistic situation is marked by competing claims, disputes, and a lack of consensus between the two Sudans, leading to severe consequences for the region and its inhabitants. This problem statement aims to highlight the consequences of the resource availability and cross-border conflicts in Abyei and identify the existing gap in achieving a peaceful and equitable resolution. In an ideal situation, the disputed region of Abyei would witness collaborative efforts between Sudan and South Sudan to jointly manage and share the resources (Pankhurst, 2019). This would involve transparent mechanisms for resource exploration, exploitation, and revenue sharing, ensuring equal and fair distribution of benefits. In such an ideal scenario, conflicts would be minimized, and the region would witness sustainable development, social stability, and improved livelihoods for the local communities. However, the realistic situation presents a stark contrast to the ideal scenario (Pearce, 2019). The region continues to be marred by competing claims and disputes between Sudan and South Sudan over resource control and territorial boundaries. The absence of a mutually agreed-upon solution and effective resource management mechanisms has perpetuated cross-border conflicts, leading to human displacement, loss of lives, economic disruptions, and environmental degradation. The consequences of the resource availability and cross-border conflicts in Abyei are significant. Local communities suffer from insecurity, displacement, and the inability to access and utilize the resources vital for their livelihoods (ICG, 2002). Economic development is hindered, as investments and development projects are deterred due to the volatile situation. Moreover, the conflicts strain relations between Sudan and South Sudan, affecting regional stability and impeding cooperation on broader issues. The existing gap lies in the lack of a comprehensive and sustainable resolution to the resource availability and cross-border conflicts in Abyei. Efforts towards peaceful negotiations, inclusive dialogue, and effective resource management have been insufficient (Sommer, 2020). Disagreements persist regarding resource control, revenue sharing, and the demarcation of boundaries. The absence of a clear roadmap, mutually agreed-upon frameworks, and

international support hampers the resolution of the conflicts and exacerbates the suffering of the local populations.

III. THEORETICAL FRAMEWORK

The study was based on resource curse theory developed by Richard Auty, an economist, in the early 1990s (Auty, 2001). Auty's work focused on analyzing the negative consequences associated with countries rich in natural resources and social well-being. The theory gained significant attention and had since been widely applied to various resource-rich regions around the world, hence its adoption to study issues obtaining at the disputed region of Abyei. In the context of Abyei, the resource curse theory can be applied to understand the impact of resource abundance, particularly oil reserves, on the region's conflicts and development (Field, 2020). The theory suggests that the presence of valuable resources, such as oil, can lead to adverse effects, including increased corruption, rent-seeking behavior, economic distortions, and heightened inter-group rivalries. These factors contribute to the perpetuation of conflicts over resource control and hinder the sustainable development and equitable distribution of benefits. In the case of Abyei, the abundance of oil resources in the surrounding areas has been a significant driver of conflicts and power struggles between the Sudanese government and local communities (Grawert, 2018). The competition for control over oil reserves and associated economic benefits has intensified tensions and hindered efforts towards peaceful resolution and resource management. Thus, the resource curse theory provides a valuable framework for understanding the dynamics of resource availability and cross-border conflicts in the disputed region of Abyei (HRW, 2020). The study on resource availability and cross-border conflicts in the disputed region of Abyei can be analyzed through various theoretical perspectives (ICG, 2019). One relevant theoretical framework is the resource curse theory, which suggests that the abundance of natural resources, such as oil, can lead to conflicts, corruption, and underdevelopment. This theory highlights how the competition for resource control can exacerbate existing conflicts and fuel tensions between different groups or nations.

IV. LITERATURE REVIEW

The availability of oil reserves has a significant effect on cross-border conflicts, particularly in regions where competing claims and disputes over resource control exist (Deng, 2011). This is also true for the disputed region of Abyei in the Two Sudans, Sudan and South Sudan. The presence of oil reserves intensifies conflicts and heightens tensions between the two countries, leading to various consequences. Firstly, oil reserves availability creates economic incentives for both Sudan and South Sudan to assert their control and ownership over the region (Dereje, 2018). Oil revenues contribute significantly to national budgets, economic growth, and development opportunities. As a result, competition for access to oil reserves can lead to heightened conflicts, as each country seeks to maximize its share of the resource and its associated economic benefits. Secondly, the control and exploitation of oil reserves can become a source of political power struggles between Sudan and South Sudan (Feyissa, 2011). The ability to control oil resources enhances a country's geopolitical influence, economic stability, and internal political dynamics. Conflicts arise when the control of oil reserves is seen as a means to strengthen political control and maintain dominance in the region. Thirdly, disputes over oil revenues and revenue sharing arrangements exacerbate cross-border conflicts. Issues related to revenue allocation, profit distribution, and taxation of oil resources can lead to disagreements, mistrust, and economic disputes between the countries (Field, 2020). These conflicts hinder cooperative efforts, strain diplomatic relations, and delay the resolution of broader territorial and political disputes.

Moreover, the reliance on oil revenues can create economic vulnerabilities and over-dependence on a single resource (Grawert, 2018). Fluctuations in global oil prices and market conditions can impact the stability of both Sudan and South Sudan's economies, leading to further tensions and potential conflicts. The volatility and uncertainty associated with oil revenues can exacerbate existing conflicts and hinder the prospects for sustainable peace in the region. The availability of oil reserves in the disputed region of Abyei has a profound impact on cross-border conflicts between Sudan and South Sudan (HRW, 2020). It influences economic incentives, political power struggles, revenue sharing disputes, and the overall stability of the region. Understanding and addressing the complexities surrounding oil reserves availability is crucial for promoting peaceful resolutions, sustainable development, and regional cooperation in Abyei. The availability of oil reserves in the disputed region of Abyei has had a significant impact on cross-border conflicts between Sudan and South Sudan (International Crisis Group, 2019). Oil reserves are a valuable resource, and the competition for control and exploitation of these reserves has intensified tensions and conflicts in the region. Both countries have claimed ownership of the oil-rich areas in Abyei, leading to disputes over resource control, revenue sharing, and territorial boundaries. The presence of oil reserves has increased the stakes for both Sudan and South Sudan, as the revenues derived from oil exports play a crucial role in their respective economies (International Crisis Group, 2018a). Control over these resources translates into economic power, political influence, and the ability to finance military activities. As a result, the struggle for control over oil reserves has heightened cross-border conflicts, with both countries seeking to assert their sovereignty and secure the economic benefits associated with oil production.

The oil-related conflicts in Abyei have been characterized by attacks on oil installations, disruptions in oil production and exports, and accusations of revenue misappropriation (Johnson, 2020). These conflicts have not only strained relations between Sudan and South Sudan but have also had broader regional implications, affecting neighboring countries that rely on oil imports or are involved in regional energy security initiatives. The availability of oil reserves has been a key driver of cross-border conflicts in various regions of the world. Oil is a highly valuable resource that directly impacts national economies, and competition for control over oil-rich territories often leads to disputes between neighboring countries. For instance, the long-standing dispute between Iraq and Kuwait over the Rumaila oil field played a crucial role in the Gulf War of 1990–1991. Iraq accused Kuwait of slant drilling and overproduction from the shared oil field, contributing to the escalation of tensions that culminated in Iraq's invasion of Kuwait (Smith, 1991). This example highlights how competition for oil resources can trigger not only cross-border conflicts but also full-scale military engagements.

In Latin America, Venezuela and Guyana have experienced tensions due to overlapping claims in the oil-rich Essequibo region. Offshore oil discoveries by Guyana in 2015 intensified the dispute, as Venezuela seeks to assert control over part of the territory (Ellis, 2019). This situation demonstrates how oil discoveries can reignite dormant territorial disputes, as countries vie for the economic benefits that come from oil production. Similarly, the discovery of significant oil reserves in the South China Sea has exacerbated existing territorial disputes involving multiple countries, including China, Vietnam, and the Philippines. China's claims to a large portion of the South China Sea, which is believed to contain vast oil and gas reserves, have led to increased tensions with neighboring countries that also seek access to these resources (Panda, 2018). The strategic importance of oil reserves in this region underscores how natural resources can fuel complex geopolitical conflicts.

In Africa, the Abyei region between Sudan and South Sudan exemplifies the role of oil in cross-border conflicts. Both nations claim the region, which is rich in oil reserves, and this competition for control has led to repeated clashes since South Sudan's independence in 2011. Oil revenue is a crucial source of income for both countries, and disputes over the ownership of oil-producing areas have hindered peace-building efforts (International Crisis Group, 2018b). The economic significance of oil has heightened the stakes in this conflict, as both Sudan and South Sudan depend heavily on oil revenues for national budgets and economic development. This case illustrates how the competition for oil can perpetuate instability and delay the resolution of broader territorial disputes. Moreover, in the Arctic region, the melting of sea ice has opened up new potential oil and gas reserves, leading to increasing competition between countries such as Russia, the United States, Canada, and Norway. These nations are vying for control over previously inaccessible areas that are now potentially rich in oil resources. Russia has taken assertive actions by planting a flag on the seabed beneath the North Pole and expanding its military presence in the region, signaling its intent to secure access to oil reserves (Borgerson, 2013). This emerging competition for Arctic oil exemplifies how global climate change, combined with the allure of untapped oil reserves, can introduce new dimensions to cross-border resource conflicts.

V. Methodology

The study followed a mixed-methods approach. This design combined qualitative and quantitative methods, allowing for a comprehensive understanding of resource availability and cross-border conflicts in the disputed region of Abyei. The qualitative component provided in-depth insights and contextual understanding, while the quantitative component allowed for statistical analysis and generalization of findings. The study population consisted of individuals or groups that were relevant to the research objectives. In this research, the study population randomly targeted 210 stakeholders involved in resource management, conflict resolution, and decision-making processes related to the disputed region of Abyei. This included government officials, community leaders, local residents, representatives of non-governmental organizations, and experts in the field. Sloven's formula to determine the sample size of the actual respondents (See Table 1).

$$n = \frac{N}{1 + N(\alpha)^2}$$

Where; **n** = sample size; **N** = target population; and **α** = 0.05 level of significance

$$n = \frac{210}{1 + 210(0.05)^2}$$

$$n = \frac{210}{1 + 210(0.0025)}$$

$$n = 138 \text{ respondents}$$

Table 1: Research Population and Sample Size

Category	Target population	Sample size	Sampling techniques
Government officials (Ministry of Foreign Affairs Officials, Ministry of Petroleum and Mining Officials, Ministry of Water Resources and Irrigation Officials & Local Government officials from two Sudans)	20	16	Purposive sampling
Community leaders (Traditional Chiefs, Clan or Tribal Leaders, Religious Leaders & Community Elders from two Sudans)	24	18	Random sampling
Local residents from two Sudans	129	79	Random sampling
Representatives of non-governmental organizations (UN mission in Abyei (UNISFA))	25	17	Purposive sampling
Experts in the field (Conflict and Security Experts, Resource Management Experts & Geopolitical Analysts)	12	8	Purposive sampling
Total	210	138	

Data were collected using self-administered questionnaires which were administered to government officials, Local residents from two Sudans and representatives of non-governmental organizations. These questionnaires consisted of pre-designed questions with fixed response options. They allowed for efficient data collection, standardized data gathering, and ease of data analysis. Besides, interviews were administered to experts in the field (Conflict and Security Experts, Resource Management Experts & Geopolitical Analysts). These interviews involved a set of predetermined questions while allowing for flexibility and follow-up probing. Interview guides provided in-depth qualitative data, allowing participants to elaborate on their responses, provided contextual information, and shared their perspectives in their own words. Interview guides allowed for a deeper exploration of participants' experiences, insights, and perspectives related to resource availability and cross-border conflicts. In addition to questionnaires and interviews, focus group discussions were conducted with Community leaders (Traditional Chiefs, Clan or Tribal Leaders, Religious Leaders & Community Elders from two Sudans). These discussions involved a small group of participants engaging in guided discussions facilitated by a researcher. Focus group discussions promoted interaction, encouraged participants to share their experiences and perspectives, and allowed for the exploration of group dynamics and shared beliefs. Focus group discussions enabled the exploration of collective viewpoints, social norms, and shared experiences related to resource availability and cross-border conflicts. They provided a platform for participants to interact, debate, and built upon each other's ideas, generating rich qualitative data. Quantitative data were analyzed using both descriptive statistics (mean and standard deviation) and inferential statistics (Pearson Correlation Coefficient). Qualitative data analysis involved interpreting and making sense of the non-numerical data from interview and focus group discussion transcripts as well as open-ended survey responses. It aimed at uncovering the themes, patterns, and meanings embedded in the data through content analysis

VI. RESULTS

Demographic features of the Respondents

This section presents the demographic features of the respondents including, gender, age, and level of education of the respondents as discussed here under:

Table 2: Gender of the respondents

Gender	Frequency	Percentage
Male	70	68.63
Female	32	31.37
Total	102	100

Source: Field Data (2024)

Table 2 shows that out of a total of 102 respondents, 70 (68.63%) are male, while 32 (31.37%) are female. This suggests a predominance of male respondents. However, the inclusion of both male and female participants contributes to the representation and reliability of the collected data. Additionally, it implies that a significant number of male respondents, who frequently partake in cross-border conflicts over resources in the contested region of Abyei in Two Sudans, were included in the study.

Table 3: Age of the respondents

Age	Frequency	Percentage
19-25	24	23.53
26-30	35	42.2
31-35	27	26.47
36 and above	16	15.69
Total	102	100

Source: Field Data (2024)

Table 3 illustrates that 23.53% fell within the age range of 19-25 years, 34.31% were aged between 26 and 30 years, 26.47% were in the 31-35 age bracket, and the remaining 15.69% were 36 years and older. This implies that the participants were sufficiently mature, enabling them to comprehend, express, and interpret questions based on their life experiences. The study's findings further suggest that a majority of the respondents were middle-aged adults actively involved in cross-border conflicts over resources in the disputed region of Abyei in two Sudans.

Table 4: Educational levels of the respondents

Education level	Frequency	Percentage
Master's Degree	1	0.98
Bachelor's Degree	5	4.90
Diploma	11	10.78
Certificate	18	17.65
Others	67	65.69
Total	102	100

Source: Primary data, (2024)

Results in Table 4 show that only 5.86% of respondents had acquired higher education (master's or bachelor's degrees), while 10.78% were qualified to Diploma level and more 17.65% had acquired certificates. The vast majority (65.69%) fell under the "others" category, suggesting limited educational attainment. This low level of education could be linked to the ongoing resource conflict in Abyei, which may have disrupted educational opportunities.

Effects of oil reserves on cross border conflicts in Abyei region

Descriptive results

Table 6: Effect of oil reserves availability on cross border conflicts of the disputed region of Abyei in Two Sudans

Items	Mean	SD	Rank
1. The presence of significant oil reserves in the disputed region of Abyei has heightened tensions between Sudan and South Sudan, leading to cross-border conflicts.	4.60	0.45	1
2. Control over oil resources in Abyei has become a central issue in the territorial disputes between Sudan and South Sudan, exacerbating the potential for conflict.	4.45	0.52	2
3. Oil reserves availability in Abyei has created economic incentives for both Sudan and South Sudan, intensifying their competition for control and revenue sharing.	4.35	0.44	3
4. Disagreements over oil exploration, production, and revenue sharing have fueled cross-border conflicts in Abyei, as both countries seek to maximize their economic gains.	4.25	0.47	4
5. The competition for oil resources in Abyei has undermined trust and cooperation between Sudan and South Sudan, hindering efforts for peaceful resolution of the territorial disputes.	4.15	0.62	5
6. The dependence on oil revenues has heightened the stakes of the conflict, making the control and exploitation of oil reserves a strategic objective for both Sudan and South Sudan.	4.00	0.70	6
7. The disputes over oil in Abyei have led to the militarization of the region, with armed forces from both sides involved in clashes and skirmishes.	3.95	0.80	7
8. The oil-rich nature of Abyei has attracted the attention of international actors, further complicating the cross-border conflicts and making resolution more challenging.	3.25	0.85	8
9. The volatility of oil prices and fluctuations in production levels have exacerbated tensions between Sudan and South Sudan, as the economic impact of oil becomes a	3.15	0.82	9

Items	Mean	SD	Rank
significant factor in the conflicts.			
10. The resource curse phenomenon is evident in Abyei, as the availability of oil reserves has contributed to the intensification of conflicts, corruption, and governance challenges in the region.	3.05	0.75	10
Overall Mean & SD	3.92	0.64	

Source: Field data, (2024) Key for interpreting Mean: 1.00-2.49- Disagreed; 2.5-3.49-Undecided; 3.5-5.00-Agreed

Table 5 presents a comprehensive analysis of the effect of oil reserves availability on cross-border conflicts in the disputed region of Abyei between Sudan and South Sudan. The highest-ranked item, with a mean value of 4.60, highlights that the presence of substantial oil reserves in Abyei has significantly heightened tensions between Sudan and South Sudan, directly leading to cross-border conflicts. This suggests that the strategic importance of oil in the region is a major catalyst for hostility between the two nations. Following closely, the second-ranked item emphasizes that control over oil resources in Abyei has become a central issue in territorial disputes between Sudan and South Sudan, exacerbating the potential for conflict (Mean= 4.45). This reinforces the idea that oil plays a crucial role in shaping the nature and intensity of the conflicts. The third-ranked item underlines the economic incentives created by oil reserves, intensifying the competition for control and revenue sharing between Sudan and South Sudan (Mean= 4.35). This suggests that the economic benefits associated with oil contribute significantly to the ongoing conflicts in the region. The fourth and fifth-ranked items emphasize how disagreements over oil exploration, production, and revenue sharing have fueled cross-border conflicts, undermining trust and cooperation between the two nations (Mean= 4.25 and 4.15 respectively). These findings suggest that economic interests related to oil are key drivers of the conflicts, hindering diplomatic efforts for peaceful resolution. The sixth-ranked item highlights that the dependence on oil revenues has elevated the stakes of the conflict, making the control and exploitation of oil reserves a strategic objective for both nations (Mean= 4.00). This suggests that economic considerations are central to the motivations of both Sudan and South Sudan in the conflict. The seventh-ranked item points out that disputes over oil in Abyei have led to the militarization of the region, with armed forces from both sides involved in clashes and skirmishes (Mean= 3.95). This indicates a direct link between oil-related disputes and the escalation of armed conflict in the area.

The eighth-ranked item notes that the majority of the respondents had a split opinion on whether oil-rich nature of Abyei has attracted the attention of international actors, complicating the cross-border conflicts and making resolution more challenging (Mean= 3.25). This suggests that the involvement of external parties could have complicated the resolution of the conflict in one way or the other. Equally, the ninth and tenth-ranked items highlighted that the volatility of oil prices and fluctuations in production levels might have exacerbated tensions between Sudan and South Sudan, and so, could have in one way or the other, contributed to the economic impact of oil as a significant factor in the conflicts (Mean= 3.15 and 3.05 respectively). These findings emphasize to some extent, the sensitivity of the conflict to economic factors related to oil.

Interview results

The interview responses consolidated the quantitative findings. For instance, one of the experts interviewed highlighted that the ongoing cross-border conflicts in the disputed region of Abyei are significantly intensified by competition over oil reserves. These tensions are often rooted in territorial disputes, historical grievances, and the struggle for control over oil resources all of which are vital for both Sudan and South Sudan. The expert emphasized that the availability of oil in Abyei has further complicated the conflict dynamics between the two nations. Besides, most of the interviewed experts acknowledged that oil reserves are a major driver of cross-border conflicts in Abyei. The potential economic benefits from oil extraction in the region create intense competition among various stakeholders, resulting in disputes over control of oil fields, revenue-sharing agreements, and broader resource management. The allure of oil wealth has heightened the stakes in Abyei, fueling ongoing conflicts between Sudan and South Sudan.

Focus group discussions results

Like interviews, the findings from FGDs verified the quantitative results and showed that the cross-border conflicts between Sudan and South Sudan in the Abyei region have been fueled by oil reserves and are feared to escalate the near future. One of the interviewed elders suggested that the availability of oil reserves in the Abyei region has significantly intensified cross-border conflicts. Both Sudan and South Sudan view these resources as critical to their economic stability and growth. As a result, competition over these reserves has led to frequent tensions and disputes between the two nations. To address this, there needs to be a cooperative framework that ensures equitable sharing of the oil revenues and addresses the concerns of local communities who are directly affected by the conflict. Another participant, a traditional chief mentioned that the discovery of oil in Abyei has escalated conflicts because both countries see it as a valuable asset that could transform their economies. Traditional councils suggest that to mitigate these conflicts, traditional dispute resolution methods should be

integrated into negotiations. This approach could help to address local grievances and promote a more inclusive process for managing the oil resources. These submissions were consolidated by the views of one religious leader who noted that religious leaders have a crucial role to play in promoting peace in the context of oil-related conflicts. We believe that by emphasizing the shared values of justice, fairness, and reconciliation, we can help both nations approach the issue of oil reserves with a focus on ethical and equitable resource management.

Inferential results

Table 6: Relationship between oil reserves availability and cross border conflicts in Abyei region

		Oil reserves availability	Cross border conflicts
Oil reserves availability	Pearson Correlation	1	.983**
	Sig. (2-tailed)		.000
	N	102	102
Cross border conflicts	Pearson Correlation	.983**	1
	Sig. (2-tailed)	.000	
	N	102	102

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Field Data (2024)

Table 6 presents correlation analysis between the availability of oil reserves and cross-border conflicts in the disputed region of Abyei between Sudan and South Sudan. The correlation coefficients are calculated using Pearson Correlation. The Pearson Correlation coefficient between oil reserves availability and cross-border conflicts is exceptionally high, with a value of .983. This indicates a strong positive correlation between the two variables. The p-value (Sig.) associated with the correlation is reported as .000, which is less than the conventional significance level of 0.05. This suggests that the correlation is statistically significant. The positive correlation coefficient of .983 suggests that as oil reserves availability increases, there is a substantial tendency for cross-border conflicts in the disputed region of Abyei to increase as well. In summary, the table provides evidence of a highly significant and positive correlation between the availability of oil reserves and the occurrence of cross-border conflicts in the Abyei region, suggesting a potential link between these two factors.

VII. Discussion

The exceptionally high Pearson correlation coefficient of 0.983 between oil reserves availability and cross-border conflicts suggests that as oil reserves become more accessible, the frequency of conflicts between Sudan and South Sudan increases significantly. This implies that the competition for oil resources is a major driver of conflict in the region. The presence of valuable oil reserves intensifies the stakes for both nations, leading to heightened tensions and frequent disputes. These findings are in line with Feyissa (2011), who argued that oil reserves availability creates economic incentives for both Sudan and South Sudan to assert their control and ownership over the region. Oil revenues contribute significantly to national budgets, economic growth, and development opportunities. As a result, competition for access to oil reserves can lead to heightened conflicts, as each country seeks to maximize its share of the resource and its associated economic benefits. The findings are supported by Chisadza et al. (2024) whose study established that the likelihood is high for conflicts between neighboring resource-rich countries. In the same vein, Chisadza and colleagues espoused that given that many countries are dependent on oil imports, the risk of external involvement in conflicts becomes more likely implying that they will ally with either country or increase the animosity between them over the oil resources. The propensity of fighting between the countries sharing the oil resources becomes high when there are external interventions in form of alliances. The study findings are amplified by Aliebori (2024) whose study in Iraq established that Iraq shares oil deposits with neighboring Kuwait and Iran and that one obstacle to negotiating their shared areas is demarcating the boundary between Iraq and surrounding states is still the subject of debate and controversy. Earlier studies such as Colgan (2014) and Cotet and Tsui (2013) provide further substantial evidence that in the event of neighboring countries sharing oil deposits, cross-border conflict is eminent. For instance, Colgan (2014) noted that states which are States which are petro-revolutionary (having both oil income and a revolutionary leader) are more likely to aggress their neighbors sharing the same resources by a magnitude of three and a half times that of a comparable "typical" state (one without oil or a revolutionary leader). Comparably, Cotet and Tsui (2013) equally conceded that armed groups are more likely to attack their neighbors for the purpose of stealing oil as well as showcasing their chauvinism and military arsenal, consequently fortifying cross-border conflicts.

VIII. Conclusion and Recommendation

Presence of oil reserves plays a significant and impactful role in shaping conflicts between Sudan and South Sudan in the Abyei region. This is not an incidental finding since literature is replete with examples of how oil reserves that are shared between neighboring countries outside the realm of the Sudans, has resulted into a resource curse. The dogged struggles between the neighboring countries have caused immense suffering to the citizens of either country especially those staying near the frontline who are affected directly and the rest of the masses who bear the brunt of the aftermath of the conflicts indirectly. There is an urgent need of establishing mutual understanding between the countries conflicting over natural resources. This is possible through using the guidelines enshrined in the international statutes and frameworks, bilateral and regional arbitrations and mediations and engagement of the top leadership of the warring countries to forge unity through principled dialogue.

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