



Dynamics of Drivers of Conflict in Water-Related Resource Scarcity: Focus on Lake Turkana Basin of Kenya

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Article History

Received: 2023.08.18

Revised: 2023.09.02

Accepted: 2023.09.18

Published: 2023.09.27

Keywords

Conflict management

Conflict drivers

Lake Turkana basin

Scarcity

Water resource

How to cite:

Ngong'e, D. N., Muigua, K., Nyukuri, E. (2023). Dynamics of Drivers of Conflict in Water-Related Resource Scarcity: Focus on Lake Turkana Basin of Kenya. *Eastern African Journal of Humanities and Social Sciences*, 2(2), 28-37.

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Abstract

Lake Turkana basin, located in Turkana County of Kenya, has become a central point for studying the dynamics of conflicts resulting from water-related resource scarcity. The study sought to identify specific drivers of water use-related resource conflicts in the basin and was anchored on the Negotiation Theory. Historically, the semi-arid and arid regions of the Kenyan borders have experienced perennial conflicts between ethnic groups in the Lake Turkana Basin that revolve around scarce water-related resources on land and in water. Using a descriptive study design, convenience sampling accessed 36 respondents through 36 questionnaires, interview schedules, three focus group discussions (FGDs) and an observation guide. The study findings demonstrate that drivers of conflicts were not just locally domesticated but also had external factors and influences, including dynamics associated with inflammatory political speeches and economic and environmental factors resulting in a harsh climate. Additionally, high illiteracy, with over 45% having only primary school level education, cultural pressures where 75% male domination was observed, ethnic tensions, historical grievances, scarce critical resources which were only concentrated in a few locations, and geopolitical interests of neighbouring countries contributed to conflicts in the region. In conclusion, drivers of conflict must be carefully understood for long-term resolutions. The study limitations included remoteness and lack of infrastructure in the basin. Further research is recommended to establish whether the key drivers could be reversed in their efforts to drive conflicts to manage perennial conflicts. Alternative Dispute Resolution (ADR) mechanisms are highly recommended for managing these perennial water resource-related conflicts.

Introduction

Lake Turkana is an alkaline but significant water source in Turkana County, supporting thousands of livelihoods. Turkana County is located in the northern arid region of Kenya. The ethnic groups in Turkana County are primarily nomadic pastoralists, moving their herds freely across the international boundaries of Kenya, Ethiopia, Sudan and Uganda. This region is heavily prone to perennial water resource-related conflicts, resulting in the unplanned displacement of human beings and animals.



Drivers of conflict are those factors that make a party enforce their opinion over a specific wish (Sarkodie, (2018). Perceptions have long driven people to act contrary to the expectations of their immediate neighbours, leading to conflict. A key perception, especially for water-related resources is security of usage, where one party feels either insecure or threatened using the resource (Al-Saidi, 2017).

Conflicts are brought about by one party feeling insecure in a particular environment. The party feeling insecure will either create insecurity to the rival of that resource or, alternatively, create a fight to protect the scarce resource. The perception of superiority also has been known to be a key driver of fuelling conflict. Specifically, a party that feels entitled to a specific resource would like to dominate its usage, and this could be a driver of conflict even if the scarce resource is adequate for both parties (D'Odorico et al., 2019).

The question for scholars then is how to identify such perceptions that drive conflicts among the various parties, with some pointing towards corruption in trying to control that very scarce or special resource. Specifically, when corruption is mixed with political influence, the driver becomes more complicated and elusive to stop or control, as experienced in the West African states (Nie, 2003). In such cases, oil exploration that could involve the locals has brought conflict due to corrupt government officials plotting to evict the locals and share secret profits with the mining proprietors.

To an extent, extreme climate changes can also drive conflicts in areas with scarce environmental resources. They may lead to excessive lack of rainfall or changes in the soils that deplete the scarce resource sustenance (Tura et al., 2019). An example includes locusts wiping up scarce resources that could lead animals to invade human settlements. At the same time, the farming community may attack the pastoralist community when their climate-affected scarce resource is wiped out (Sarkodie, 2018).

The global scarcity of specific water-related resources has resulted in conflicts between neighbouring communities, with negative implications for human-human and human-animal interactions. This concern is common globally and replicated across various regions, including Africa and, in particular, Kenya's semi-arid and arid lands, with the Lake Turkana basin being included. Lake Turkana basin in Kenya is specifically affected by long-standing conflicts associated with water-related resource scarcity. Thus, resulting in cattle rustling killings at water points, family displacements and loss of property through revenge destructions by communities in conflict. To address these conflicts effectively, it is critical to understand the underlying drivers contributing to the compelling dynamics within the Lake Turkana Basin.

Review of Related Literature

The study was anchored on negotiation theory. The negotiation theory was proposed by Druckman (1986) and later improved based on related management theories, including decision analysis, game theory, behavioural decision-making, and negotiation analysis. Negotiation theory proposes that the critical focus of coming together is the interests and not the positions of those involved in a negotiation. Additionally, the negotiation theory emphasises that there should be clear commitment separate from invention to build on almost self-enforcing agreements.

A significant criticism of the negotiation theory is that trust requires specialised skills, especially from the conflicting parties. Yet, it is difficult to have a team that has total trust in each other (Ross & LaCroix, 1996). In essence, the difficulty in attaining trust among the three groups, conflicting teams and the negotiator team, renders negotiation theory weak in application. To some extent, it has been pointed out that cross-border negotiations can be used to cover the continuing activities that cause the



conflict, which acts as a bad faith example (Katz, 2021). This means that one party could hide behind negotiations to buy time in exploiting the water resources.

The negotiation theory in application has retained peace in the river basin across California. Specifically, the negotiation considered the multi-lingual differences of the stakeholders and the cultures from all sides, including fair representation in getting consensus on environmental policy and conflict management.

Regionally, the Tanzania water use conflicts found in the Southern part of the country have been well resolved through negotiations. In the Southern Agricultural Corridor of Tanzania, termed SAGCOT, the green economy in the face of environmental conservation efforts brings a conflict that could have escalated into a severe clash between the government and investors on one side and the residents on the other (Bergius *et al.*, 2020). Specifically, the Kilombero Valley, where small-scale farmers had to be displaced to give way to large-scale farmers, presented a hot spot for conflicts. More so, the pastoralists, thought to bring more environmental destruction, resisted their eviction, causing a conflict.

The evictions from the valley meant that herdsmen had to move into zones that were predominantly farming areas, leading to yet more conflict. The Tanzanian government had to use negotiations to avoid further conflicts, help resettle some of the displaced farmers, and develop a policy on how to share land in the rich Kilombero Valley in the South of Tanzania (Bergius *et al.*, 2020).

In the Kenyan context, the Mara Basin is presented as one of the key locations where water use in the vast area presents an environment with communities in conflict with each other and against wildlife (Richards & Syallow, 2018). Through the water resources management framework, there are efforts to recognise the local knowledge, activities of the people and their interactions with wildlife to reach negotiations that can avert conflicts even in the face of clear environmental laws by the government of Kenya.

Methodology

This study adopted a positivist philosophy approach based on the assumption that the study set to empirically and objectively analyse the relationships among the variables under the study on water resource-related conflicts in the Lake Turkana basin of Kenya. Additionally, the study applied a descriptive research design, described by Kothari (2017) as a systematic research method for collecting data from a representative sample of individuals using instruments composed of closed-ended and/or open-ended questions, observations, and interviews.

The fundamental characteristic of a descriptive design is the objective description of the phenomena on the ground, without manipulating to influence or alter the environment. This approach enhances the likelihood of obtaining objective solutions to the studied phenomena. This implies that descriptive design was suitable for this study since it enabled the researcher to explore the pervasiveness of the study variables in a cross-section of the study population at a given point in time without any manipulation.

Target Population and Site

The target population of 90 was residents of the Lake Turkana basin of Kenya, specifically those found in the most conflict-prone zones on the Kenyan side. Specifically, the Kalokol along the shores of the lake, Lorugum, and Kainuk in the Western and Southern borders of Turkana County, where human-human or animal-human conflicts have been frequent.



Sample and Data Collection

A structured questionnaire was used as one of the triangulation instruments. This instrument was chosen as it offers an efficient method of collecting information. The study applied this instrument in collecting demographic information from the 36 respondents through convenient sampling targeting 30 per visited site, including Kainuk, Lodwar and Kalokol. Additionally, data was collected using scheduled interviews with key informants, including community leaders as well as administrators from the conflict zones. The study also employed observation guides in examining what was on the ground regarding water resource usage, which is perceived as the source of conflict in the study location. Due to the basin's vast and low population density, the study targeted 90 respondents through a convenience sampling approach. Finally, the study selected three focus groups for discussions (FGD) to get more insights into the drivers of the perennial conflict around the study location.

Results

The study results are presented in two sections, with the first brief section focusing on the quantitative demographics of the field respondents. In contrast, the second section is concentrated on the analysis of responses.

The key characteristics captured through the questionnaires included gender, age group, level of education and occupation of the respondents as shown in Table 1. There were 24 male and 12 female respondents, with the majority coming from the combined age group of 25 to 45. In terms of education, the majority had attained primary and secondary school education levels. At the same time, pastoralism, crop farming, and fishing formed the main occupations of the field respondents from the semi-structured questions. This is a fair reflection of the regional demographics around the Lake Turkana Basin of Kenya.

The study also used Focus Group Discussions (FGDs) and Key Informant (KI) interviews in which respondents' demographics were not captured except for the gender since they involved discussions in which it was essential to put the respondents at ease without necessarily asking for too much into their demographic characteristics. The Focus Group Discussions (FGDs) were three groups, with the first group having eight participants composed of five males and three females, the second group with eleven participants, seven males and four females, and the third group having fourteen participants comprising eight males and six females.



Table 1: Key Demographic Data

Characteristic	Characteristic Category	Male Frequency	Female Frequency
Age Group	Below 25	2	2
	25-35	7	4
	36-45	8	3
	46-55	4	2
	Over 55	3	1
Level of Education	Primary	12	5
	Secondary	5	3
	Post-secondary college	4	3
	Degree level	3	2
Occupation	House work	1	5
	Farming	5	2
	Pastoralism	11	4
	Community Leader	4	1
	Business/Consultancy	3	1

Source: Research Data (2022)

Focused group discussions and interviews revealed that political influences were the key drivers of regional perennial conflicts. This was also confirmed by key informants who pointed to meetings and funding to incite the conflicts by community leaders of influence, whether residents or those living far away from the Lake Turkana basin of Kenya. Another driver of conflict that repeatedly came to the fore from the interviews was the harsh climate in the region that forces people to be extremely violent at the slightest provocation concerning water-related resources.

Yet another key driver of conflict was the culture of the people in which the focus groups highlighted how marriage requirements force young men to go on stealing missions in neighbouring zones since the bride price or dowry is set at a high number of cattle or goats and camels. Similarly, there was a deep-rooted culture in which neighbouring communities treated each other as superior or inferior in all actions, thus driving any little flare-up into full water resource-related conflicts.

Most respondents indicated that one of the key factors behind the conflicts was the culture of communities around the Lake Turkana basin. Accordingly, most pastoral communities perform marriage ceremonies in which men are supposed to pay dowry in terms of large herds of livestock. This then drives youthful men into a desire to have all excuses to raid neighbouring communities to herd away their livestock forcefully. In the words of one interviewee:

When a man attains marriage age and owns 20 heads of cattle while he is required to raise, let's say, 70 heads of cattle for dowry, such a man would hesitate to raise the balance of 50 from within the community. This calls for friends and community members to help him use force against the neighbouring community to raise the required balance of 50 heads of cattle.

Additionally, the discrepancies in ownership of livestock also drive conflict among communities, with one key interviewee, specifically from the Southern Lake Turkana basin town of Kainuk, stating that;



A person owning 100 heads of livestock is expected to protect a water-related resource instead of an owner of a lower number, for example, 20. However, the owner of 20 heads of livestock will not let their livestock die when the resource is reachable but protected by the owner of 100 heads of livestock. This easily drives a conflict between such livestock owners regardless of whether they are from the same community.

According to some FGD observations, one key informant from Kalokol town on the Western shores of Lake Turkana pointed out that;

Our people have severally fought over water drawn from community boreholes. Some of us have never contributed to developing or maintaining the water points. So, when we are restricted or strictly regulated in water resource use, a conflict arises. Cases of women taking up arms to fight for a water resource if that was the only source for their children are common. Such a woman is then regarded highly by the growing children and community members.

Another key informant noted that the harsh climate in the Lake Turkana basin was a driver of conflict since it caused extreme cases of environmental happenings. The informant observed that;

The climate is so harsh that during the 3 to 5 days of rainfall in a year, the dry shallow river beds simply become muddy, resulting in flooded areas and leading to migration to other areas where high chances exist for conflict between different groups.

As a result of the harsh climate, poverty is a key driver of conflicts in the Lake Turkana basin since the harsh climate results in scarce natural resources, leaving the residents forever planning on survival modes; a recipe for conflict is water-related.

Discussion

Various studies from previous explorations of similar conflicts have supported the current study findings. In the Sub-Saharan region, the abundance of water-related conflicts is attributed to the politics of the existing governments and interested parties that use the state's infrastructure to frustrate specific groups or communities (Zeitoun et al., 2020). The study concludes that the conflicts become manageable or contained once the drivers are taken care of or brought to a round table meeting.

The barriers and drivers of conflict require a framework for establishing a solution to the perennial conflicts. Accordingly, there is a way of escalating conflicts in any society, which sometimes takes the form of specific individuals or groups of people inciting others (Tura et al., 2019). Furthermore, such a framework maps out the real drivers with negativity that inflames the conflicting parties or communities.

Similarly, in a study covering East and West Africa by Gebrehiwot et al. (2019), the drivers of water-related resource conflicts were strongly linked to the climatic conditions of the land. The study pointed to areas like Northern Kenya, Sudan, Ethiopia, Niger and Central Africa as those with adverse climatic conditions that drive people and animals into water resource-related conflict, with the final consequence that the governments of the day join in such conflicts. This is also comparable to a local in which findings indicate that community gatherings and people speeches are funning the perennial conflicts in the semi-arid regions of Kenya (Wafula, 2020).

On the contrary, some studies dispute the conclusion that conflict drivers affect the management of the said conflicts. From an earlier research based on negotiation theory (Ting-Toomey & Kurogi, 1998), evidence suggests that the best approach to conflict management would involve an approach with strong negotiators who can attain results by bringing up solutions that work without necessarily reigning in the drivers. In other words, the study on negotiation theory established that the best form of management for such perennial conflicts was found in good negotiations regardless of the sources



and drivers of the conflict. Sakordie's (2018) study also contradicts the drivers' thinking in that, most of the time, the drivers, even if well-identified, can disguise or change to render the conflict management irrelevant. This implies that something or a further step must enable the communities in conflict to meet without finger-pointing.

The harsh climate in the Lake Turkana basin is also a driver of conflict since it causes extreme cases of environmental activities. For example, the climate is so harsh that during the few days of rainfall, the dry shallow riverbeds simply become flooded and muddy dangerous places, leading to migration to other areas with high chances of flared conflicts between different groups (Derbyshire, 2019). Additionally, poverty arises from the harsh climate as a key driver of conflicts in the Lake Turkana basin. The harsh climate decimates the scarce natural resources, leaving the residents perennially planning on survival modes. This has been observed through previous studies with survival modes that include armed raids or any other forceful means to acquire some wealth (Chelang'a & Chesire, 2020).

The kind of leadership in these communities is more of dictatorial than the democratic or laissez-faire approach. This is demonstrated through the ruthless ostracising of any community member thought to side with another community in a water-related conflict. In other regions of the world, previous studies indicate that the utterances of leaders can indeed drive communities into conflicts or even war. More so, there are leaders in the community who talk ill of the other gender from other communities, thus impairing the thought process of the masses. An example is where one community has women herding and tending to livestock while the other community women are confined to home activities and crops (Debecker, 2019).

In Kenya, the people are strongly interested in local and national politics. According to Kungu (2018), politics is everything to a Kenyan community and individual person, arguing that most citizens play politics more than they do development matters. Specifically, interviews in the Lake Turkana basin cited the electioneering period as key to understanding conflicts in the area. According to one such respondent,

The political leaders during their election campaigns always use the political platform to give promises of restoring their community as the priority in resource allocation. To drive the point home, the politicians will talk ill of the other community, indicating that we should have all the resources available without sharing. The political language is normally disguised but has clear messages to our cheering community members.

The same could be said of other conflict zones. For example, in global terms, both Somalia (Mafuta *et al.*, 2020) and Israeli/Palestinian (Huntjens, 2017), water resource-related conflicts are highly driven by political electioneering. The tensions always heighten during any political electioneering, with the various players in the community taking election time as the most appropriate time to rally their people hinged on the water resources.

As pointed out, most of the conflicting communities within the Lake Turkana basin around Uganda and Kenya have poor literacy levels, making it difficult to even bring them together for resolutions. Additionally, Richards and Syallow (2018) noted that such lowly literate communities will always have misinformation resulting from lost or manipulated translations by parties interested in their conflicts. Misinformation has always played a key role in the escalation of conflicts. For example, interviewed residents of Kainuk in the southern regions of Lake Turkana basin, where Turkana and Pokot communities live in hostility, say that;



When a member of our neighbour community steals my one goat, I rush back to tell my people that the neighbouring community have stolen 20 goats. Even without my community verifying to see how many goats I previously owned, they can start hunting down herds of boys the other community to recover 20 goats instead of the one goat that I had lost. When the other community confesses to having stolen only one goat, a conflict is already flaring and lives have likely been lost.

Misinformation is rampant even in communities with high literacy levels, for instance, in the Israel/Palestinian (Huntjens, 2017) water resource conflicts, where each side misinforms their people on the root cause of any conflict. The same is witnessed in West Africa and Somalia, where misinformation always fuels conflicts (Korbéogo, 2020; Mafuta *et al.*, 2020).

The study observation guide recorded that the basin had inferior infrastructure, with few motorable roads, communication centres and vastly dry lands with either dry riverbeds or very little water in the few valleys with flowing rivers. Additionally, the observation guide recorded very few boreholes within the visited sites in the Lake basin and mostly dry large fields with shrubs, indicating little water availability. With the low population density recorded, it was also clear that seeking help in case of a coordinated attack would be very hard indeed, thus making it easy to have conflicts related to water resources.

Conclusions

According to the study, the critical driver of conflict within the Lake Turkana basin is the extreme climate conditions that stress the communities looking for basics of life, including water and green land for crop farming and livestock herding. This is because changes in rainfall patterns strain water availability due to climate change, which accelerates water resource scarcity and increases tensions and conflict. These conditions exert a lot of pressure and stressful moments on local communities as they struggle to meet their basic needs, including access to water and land for farming and livestock herding.

Another identified driver of conflict was the political class, including members of parliament, state administration, and the legal fraternity. For instance, political speeches have been a catalyst of conflict. Through inflammatory language, political speeches have fueled tensions, widened societal divisions, and contributed to an atmosphere of hostility and animosity, ultimately increasing conflict. In addition, the poor economic state of the Lake Turkana Basin, characterised by poor and inaccessible roads, has easily facilitated attacks by making it easy for one group to target another, pursue their interest and escape with the knowledge that help cannot quickly reach the affected community.

The economic challenges of the Lake Turkana Basin have also been a cause of conflict through intense competition over scarce but fundamental resources, including water and land, amongst others. This has led to tension and disputes as communities within the area struggle to meet their daily basic needs. In addition, the lack of infrastructure in the region has hindered access to essential services and contributed to grievances, further fueling conflict.

Another driver of conflicts emanates from people's culture, for instance, the demand by families to donate large numbers of livestock, say 50 to 100 goats, for dowry at short notice. The demand for large numbers of livestock for dowry has led to theft and conflict within communities due to the economic strain and resource scarcity it imposes on families, thus creating an appetite to steal to fulfil cultural expectations.

The study results indicate that several factors, including scarcity of resources through harsh climate and low development in the Lake Turkana basin area drive conflicts. To address the above, the



recommendation is to implement a fair and transparent mechanism for water resource management and allocation to reduce conflicts and disputes whilst implementing mechanisms to monitor and enforce adherence to the agreements. There should also be community engagement and awareness campaigns to sensitise the local communities about the importance of sustainable resources and involve them in the decision-making. Further, collaborate with neighbouring communities sharing the Lake Turkana basin resources to develop shared water management strategies and establish joint water conservation and management initiatives to mitigate cross-border tensions. This may include developing detailed water management plans clearly showing fairness in distribution whilst involving local communities and being cognizant of inclusivity and all stakeholders.

In terms of inflammatory political speeches that fuel conflict and tension, the study recommends that the government monitor the inflammatory speeches of politicians and put-up laws that bar community leaders from inciting their people to retaliate in case of conflicts. Engaging in effective ADR processes, including mediation, negotiation, and reconciliation with enhanced traditional dispute resolution mechanism processes, is important to address cultural beliefs and practices that support community superiority. Effective ADR strategically identifies the root causes of conflict instead of treating and managing symptoms effectively.

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