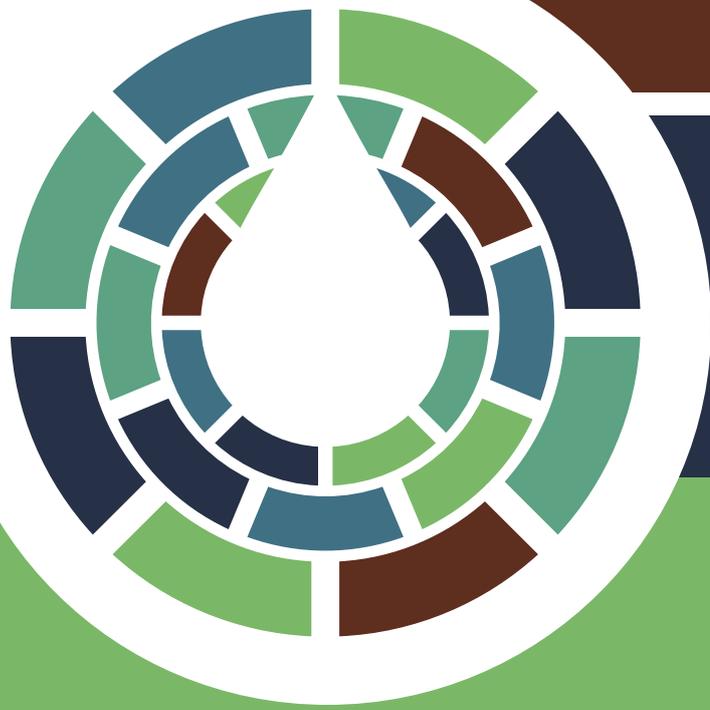


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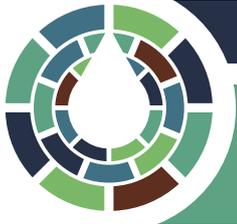
Water, Peace and Security



Water-related conflicts in Turkana county

Analysis of stakeholder interests
and concerns

July | 2022



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Executive summary

Turkana, the second largest county in Kenya, is situated in northwest Kenya and borders Uganda, South Sudan and Ethiopia. The county consists of arid and semi-arid landscapes made up of low-lying plains and isolated hills and mountain ranges. Turkana is part of the Karamoja complex conflict zone that runs across northwest Kenya, northeast Uganda and southeast South Sudan. According to Devine (2016) and Kermut (2016), the county has several 'layers' of conflict or tension: intercommunal conflicts along the Turkana-West Pokot and Samburu-Baringo borders caused by several factors including socio-economic and political marginalisation, availability of illegal arms, competition over natural resources including water, inadequate land tenure system and inadequate utilisation of traditional mechanisms for addressing conflict, among many others

Between November 2021 and February 2022, the Water, Peace and Security (WPS) partnership commissioned a water-related conflict analysis to better understand the dynamics and the intermediate factors influencing water-related conflict issues in Turkana. The research also undertook a participatory stakeholder/institutional analysis to identify stakeholders' roles, capacities, and capacity needs to address these identified conflict risks. The research was conducted in Turkana North and Turkana Central sub-counties. A total of 38 key informant interviews (KIIs) and four focus group discussions (FDGs) involving 46 participants were conducted. In addition, a separate stakeholder analysis workshop involving 16 participants was organised. Following the data collection, a validation workshop was organised to ensure the accuracy of the data.

Key findings

The relationship between water and conflict is complex and can manifest in many ways. Water in Turkana county is mainly used for domestic and agricultural purposes. Access to water has been affected by the weak governance

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and poor management of water sources increasing competition over the scarce water and pasture available resulting in conflicts and violence among the people. This could be addressed through a multisectoral approach in addressing the challenges, as highlighted in the recommendations below.

Access to water and use: The study found that water users in Turkana North and Turkana Central sub-counties largely rely on boreholes constructed by the government, development organisations, individuals, and businesses. Individuals who own boreholes are predominantly wealthy or politicians who use them for domestic purposes. Further, the study found that water is used for watering animals, fishing, cultivation of crops and commercial activities; however, maintenance

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PHOTOS BY: Belikova Oksana and Wafula Sam



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and sustainable use of boreholes have been a recurring challenge. Some of the factors affecting access to water were low water table, long distances to water points, low quantities of water (water scarcity) and salinity.

Political economy of water: The study found weak governance and poor management to be one of the most pronounced challenges affecting access to water in the four study areas. It was noted that there is weak regulation of boreholes and proliferation of boreholes in Lodwar township and the centre of Kalokol as business activity and human occupation increases. Furthermore, water cartels, popularly known as *nakanas*, are active. They either control the sources of water, preventing communities from digging/accessing water, such as *lagas* in Kalokol, or they divert the piped water to their storage for sale, as observed in Lodwar. In addition, influential elites including business people and politicians also abuse their power and resources to illegally divert water to their houses/businesses. As a result, there are growing grievances among the local communities increasing the potential risks of localised conflict. Key regulatory government agencies such as Lodwar Water Services Company (LOWASCO) and other departments are informed of such practices but are reluctant to curb them because of political pressure and financial benefits. In addition, these institutions also lack accountability and strong governance systems, which hampers their functions. For example, in 2021 Kenya Power disconnected electricity to LOWASCO over an outstanding electricity bill of 11 million Kenyan Shillings (KES) (approximately US\$110,000), which resulted in disconnection of water services to the communities.

Resource-based conflicts over water and pasture: From the data gathered, conflicts in Todonyang and Kibish were found to be mainly cross-border (both transnational and trans-county) and historically related to grievances arising from competition over water and pasture by pastoralist communities close to the border, namely, the Turkana of Kenya, Nyangatom and Dassenach of Ethiopia and the Toposa of South Sudan. As a result of the scarcity of water and pasture during periods of drought, there is

often an increase in the frequency of migration among the pastoralist communities along and across the international borders of Kenya, Ethiopia and South Sudan. These movements bring them into greater contact with each other causing increased competition over the scarce water and pasture available for their livestock. This is when the communities become more conscious of territorial ownership resulting in an increase in inter-communal conflicts related to boundaries (Paulson, 2021). In Kalokol, close to Lake Turkana, conflicts among fishermen have been occurring. These included conflicts along the shoreline and within the lake, that is, between the border of Marsabit and Turkana County and around protected areas.

Gender, water, and conflict: As with many other counties on arid and semi-arid land (ASAL), Turkana is highly patriarchal in nature with women being responsible for household tasks and key resources such as property, and livestock being owned by men. Women are excluded from the decision-making processes, both in private and public spheres. They are responsible for securing necessities for the household, including water; however, given the recurring droughts and scarce availability of water, women face the additional burden of travelling long distances in search of food and water sources exposing them to the risks of violence and conflict. Furthermore, community participation in water resources, water points and, more specifically, borehole management often favour local elites, especially men. This limits women's participation in the decision-making process, impacting on their specific needs and vulnerability.

Insecurity: Turkana shares porous borders with South Sudan, Uganda and Ethiopia, with high proliferation of illegal firearms along the border areas. Furthermore, given the practice of cattle rustling and stock theft, especially among the pastoralist communities, areas such as Todonyang and Kibish face high levels of insecurity characterised by cycles of violent conflict leading to many deaths, injuries, and loss of livestock over the years. The insecurity caused by the violent cross-border conflicts in these areas significantly impedes access to



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water, especially in Kibish and Todonyang.

Key stakeholders: With regards to the stakeholder analysis, this study found a wide range of stakeholders working on water, peace and security, but not in a coordinated manner. In all the areas, and particularly in Todonyang and Kibish, community-based organisations, non-governmental organisations (NGOs) and faith-based organisations (specifically the Catholic Church) were found to be key actors in peacebuilding, having implemented successful peacebuilding programmes in these areas. Furthermore, most of the stakeholders such as the County Peace Directorate, Water Resource Authority, Water Department, water resource users, beach management units and peace committees were found to have limited technical and financial capacity to address water-related conflicts, while others such as the water vendors were found to have little interest and impact on water-related conflicts.

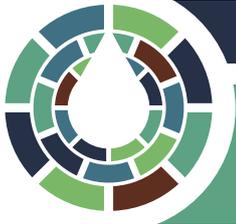
Recommendations

Increasing water scarcity caused by several factors, including population growth, economic development, and political factors such as weak governance, have increased water-related stress in Lodwar township, Todonyang, Kibish and Kalokol and compounded the fragility of these areas. As a result, conflicts between communities both within the county and cross-border (both transnational and trans-county), and conflict between the state and communities, have escalated, while the capacity of the state and development institutions to deal with the worsening challenge of conflict and drought may not have improved in parallel.

Based on these observations and analysis, the research points to the following recommendations for the WPS partnership, Turkana County Government and other relevant agencies to improve water governance and reduce water-related conflict stress.

For WPS

- In conflict-affected areas such as Todonyang and Kibish, support trust-building dialogue initiatives enabling communities to develop a shared understanding and collaborate to manage water resources, pasture and fishing resources and prevent violent conflict. This can be applied to conflicts between the Turkana and Marsabit fishermen as well as inter-clan conflicts.
- Support and promote inclusive and collaborative cross-sectoral multi-stakeholder engagement mechanisms, such as the County Steering Group, County Peace Forum, Turkana County Water Sector Coordination Committee Forum and County Women Peace Caucus, among others, to embed gender and conflict sensitivity in the development and implementation of frameworks relating to water governance and peace.
- Strengthen water governance and peace-related structures and mechanisms at county and sub-county levels such as beach management units, Water Resource Users Associations, county and sub-county level peace forums and committees, County Peace Directorate and County Directorate of Water Services through capacity-building and technical advice on gender and conflict sensitivity and conflict resolution approaches. This will enable them to address conflict risks and act on their mandates for inclusive, accessible, and improved service delivery.
- Facilitate dialogues, networking, and capacities of local civil society organisations and community-based organisations to advocate for accountable, sustainable, effective and inclusive water-governance and conflict-management processes and structures.
- Invest in further research to build evidence and understanding on water governance and management issues such as hydro-meteorological systems, availability of water resources, impact of climate change on water resources and conflict dynamics, among others.



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For Turkana County Government

- Operationalise and enforce in full the Turkana County Water Act 2019, Turkana County Water and Sewerage Services Sector Policy 2018, Turkana County Peacebuilding Bill 2021 and other related legislation and sensitise communities on the need to support the county government's efforts in enforcing the legislation and policies. Where the necessary water-related policies and regulations are lacking, fast track the development and implementation of such frameworks to strengthen the regulatory framework and improve service delivery. In doing so, ensure gender and conflict sensitivity is mainstreamed in the policies and practices.
- Create/improve monitoring and oversight mechanisms and necessary regulatory frameworks to improve accountability and transparency of water governance and service deliveries.
- Invest in building new or repairing/maintaining water infrastructures to provide safe and accessible water to the communities across the county. In doing so, ensure conflict sensitivity is strongly embedded in all infrastructure development plans and implementation processes.
- Invest in peacebuilding structures and capacities to address emerging conflict risks and, where appropriate, integrate alternative dispute resolution and traditional mechanisms drawing on locally accepted methods for resolving disputes within the Turkana community.
- Enhance the capacity of ward administrators to better coordinate and facilitate community participation in water resource and related governance issues. Furthermore, create awareness among communities of the impacts of vandalism of water infrastructure and work collaboratively with communities and law enforcers to report and prosecute water infrastructure vandals and root out the cartels.

For LOWASCO

- Create/improve monitoring and oversight mechanisms to improve accountability and transparency of water service deliveries.
- Establish alternative sources of water supply, invest in infrastructural development and put in place measures to curb water loss, wastage and pilferage.
- Initiate dialogue with water users to obtain their views about possible solutions to the water crisis and ways of collaborating in the governance of water resources.

For civil society organisations and NGOs

- Strengthen community-based early warning, early response structures such as nyumba kumi or district peace committees to identify in a timely manner the emerging conflict risks over shared resources and prevent violence through dialogue, mediation, and other preventive measures.
- Support initiatives and interventions to enhance the transparency and the accountability of governance service delivery including water management and distribution.
- Invest in county-level collaboration and partnership building to avoid duplication, unhealthy competition and enhance information exchange on water-governance and conflict-mitigation interventions.

For development partners

- Support long-term water, peacebuilding and livelihoods programmes through a systems approach, aimed at addressing structural issues related to water, peace and security, such as marginalisation and poor governance, that are likely to have high and lasting impact on peace.
- Promote and support integrated programming that has both peacebuilding outcomes and development outcomes such as access to water and improved livelihoods. This would ensure that the peacebuilding outcomes are intentional and embedded in the design and objectives of programmes.



1. Introduction

Turkana county at a glance

Surface area: 71,597.6 km², second largest county in Kenya

Geographic coordinates: Between longitudes 34° 30'E and 36° 40'E and between latitudes 10° 30'N and 50° 30'N

Neighbours: Ethiopia, South Sudan, Uganda and the counties of West Pokot, Baringo, Samburu and Marsabit

Population: 926,976 (2019 census)

Average household size: 5.6 (2019 census)

Population density: 14 people per km² (2019 census)

Refugee camps/settlements: Kakuma camp (147,000 refugees) and Kalobeyei integrated settlement (38,278 refugees) (data from CIPD II)

Source: Turkana County Integrated Development Plan 2018-2022 and Kenya Population and Housing Census 2019

1.1 An overview of Turkana county

Population and geography

Turkana is the second largest of Kenya's 47 counties, covering 71,600km² and accounting for 13.5% of the total land area in the country. The county is in the northwest of Kenya and borders Uganda, South Sudan and Ethiopia.

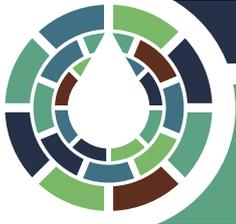
The topography of Turkana county varies between semi-arid and arid landscapes consisting of low-lying plains and isolated hills and mountain ranges. The county has a hot, dry climate with temperatures ranging between 20°C and 41°C and with a mean of 30.5°C. Rainfall in the area is bimodal and highly variable, with long rains occurring between April and July and short rains between October and November.

Socio-economic context

Hunger is a major threat in Turkana county, which has acute food and nutritional insecurity due to the wide gap between food requirements and supply. This is reflected in high food prices and 81% of people in the county suffering food poverty (Odour et al 2012). The problem of acute food and nutritional insecurity can be attributed to water scarcity; cyclic droughts and

floods; low pasture, fodder and crop production; inadequate technical planning capacity; uni-sectoral planning, poor coordination and short-term project cycles; and inadequate institutional arrangements(Oduor et al 2012). Alongside these challenges, the county is experiencing rapid population growth from 142,702 people in 1979 to 926,976 in 2019 Kenya National Bureau of Statistics (KNBS, 2018).

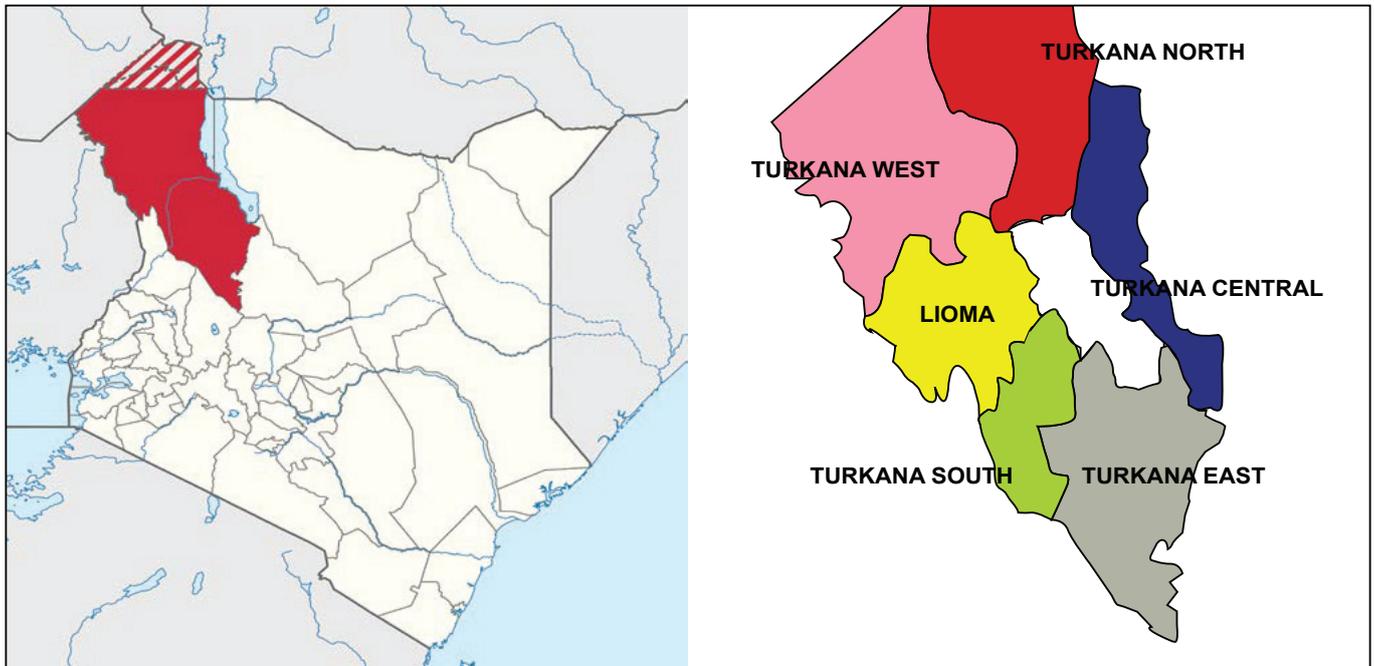
Droughts in the county have been recorded since 1960. They used to occur approximately every five years, but since the 1990s the incidence has risen to almost annual (Bright Hope, 2019). The drought crisis has severely affected food security and contributed to starvation in the county. Not only has it affected food production, but it has also caused loss of water and pasture, which in turn has led to loss of livestock and conflict among pastoralists over water and pasture. Drought has also had an impact on livelihoods because people mainly rely on livestock for income (Ministry of Agriculture Livestock Fisheries and Cooperatives (MoAFLC, 2021) Furthermore, recurrent droughts have eroded the meagre assets of Turkana's residents, leaving them poorer and more vulnerable with each shock.



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Figure 1: Location of Turkana county on a map of Kenya (left) and Turkana county administrative wards (right) (Keter, 2019)

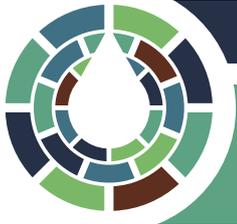


Minimum and maximum air temperatures in Turkana county increased by between 2°C and 3°C (3.5-5.5°F) between 1967 and 2012. This is a drastic increase in comparison with the global mean temperature rise of 0.8°C (1.5°F) over the past century (Human Rights Watch, 2015). Climate change has led to changing rainfall patterns. The long rainy season has become shorter and dryer, and the short rainy season has become longer and wetter, with overall annual rainfall remaining at low levels. This has resulted in unpredictable rainfall, more extreme rainfall, frequent and prolonged dry spells and increased daytime temperatures (MoAFLC, 2021)

Since 1988, Ethiopia has built a series of hydroelectric dams on its main tributary, the Omo River, leading to predictions of reduced water levels in Lake Turkana and severe harm to the biodiversity. While previous research anticipated a two-thirds drop in the lake's water levels due to the completion of the Gibe III hydropower dam causing the lake to cleave into two smaller bodies of water, more recent research arising from the modelling of future scenarios predicts a mass increase in inflow to the lake from the Omo, Kerio and Turkwel

rivers as a result of changing climate patterns and rainfall in the region. This is expected to lead to an increase in the water levels of Lake Turkana and, possibly, flooding (Avery, 2013). From this analysis, the flooding that took place in Turkana County in 2020, which was a rare occurrence, is likely to become more common in the future (Avery, 2013). According to government media reports, 420 people were affected by these floods. The impacts included death, displacement and loss of livestock and other assets (Kenya News Agency, 2021). In 2021, flooding recurred leading to similar losses as those reported in 2020. The most affected area was Turkana Central sub-county (Kenya News Agency, 2021) Further to this, heavy rains in the Mount Elgon region in Trans Nzoia and West Pokot County, as well as intense rainfall over short periods of time, has created flooding in Turkana county Ministry of Agriculture, livestock, fisheries and cooperation (MoALFC, 2021).

The Turkana ethnic group largely practises pastoralism as their main economic activity. Historically, the Turkana have used pasturelands that straddle the modern state territorial borders of Kenya, Uganda, South Sudan and



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Ethiopia (Akall, 2021). The majority of livestock in the county are shoats (a hybrid of sheep and goat), cattle, camels, donkeys, and indigenous chickens. Bee keeping is also practised in the county (Turkana County Report). Most livelihoods and economic activities in Turkana county are reliant on climate-sensitive sectors, namely, agriculture, livestock, fisheries, water, forest and wildlife. Dependence on these natural resources means that recurring droughts, erratic rainfall patterns and floods because of climate change will continue to negatively impact livelihoods and community assets (Ministry of Water, Environment and Mineral Resources, 2019).

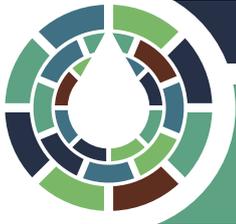
Livelihoods in the county have also been affected by changing land use and management (Akall 2021). For instance, oil and gas exploration activities, which began in Lokichar in 2012, have affected land use and land cover due to the clearing of vegetation to make way for exploration, among other factors (Mugendi et al, 2019). Sustainable management of vegetation cover is important to safeguard livestock forage and is therefore an important factor in livelihoods protection.

Infrastructure development in the county has also led to change in land use because infrastructure projects require community-owned land and resources. Land acquisition for infrastructure projects has resulted in

dispossession of land (Akall, 2021). Prior to the ratification of the Community Land Act 2016 customary land rights did not have equal footing in law as freehold and leasehold tenure. Some of the large infrastructure projects in Turkana, or that pass through that part of the county, are the Turkwel hydropower plant; the Lamu Port-South Sudan-Ethiopia transport (LAPSSET) corridor, aimed at boosting the county's economic growth and regional development and integration; the South Sudan link road (The road connects Turkana to South Sudan and other roads). The LAPSSET corridor is likely to cut through pastoral areas affecting land, pasture and migration routes Schilling et al, 2016). Furthermore, the discovery of oil in 2012 and subsequent oil exploration activities have contributed to increased economic activity, which is expected to bring new resources to Turkana county, including oil revenues, businesses, employment and infrastructure Schilling et al, 2011). The hydraulic fracturing that Tullow Oil uses in Turkana is known to produce large amounts of wastewater that may contain dissolved chemicals and other harmful by products (Akpore et al, 2014). The oil company is negotiating with the Turkana County Government to find water sources because a huge amount of water is needed to pressurise the oil wells for the oil to flow to the ground. Increased demand for water by the oil company in a region that is water scarce may contribute to water stress and increase conflict among residents (kamau, 2019)



African traditional fishing boats at Lake Turkana Kenya – Belikova Oksaba, Shutterstock



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Owing to the factors identified above, some pastoralists have shifted to alternative livelihoods over time, such as trading, fishing and agriculture. Cultivation of crops is done at the family level, with the main crops being maize, millet, sorghum and vegetables, which are farmed along the Kerio and Turkwel rivers. Fishing activities in Lake Turkana support 1,500 households directly and 1,100 households indirectly (Department of fisheries, 2022). The lake has a maximum sustainable yield (MSY) of 25,000 metric tonnes annually, but on average, an annual yield of 8500 metric tons has been recorded (Department of fisheries, 2022). Fishing also takes place along the Kerio and Turkwel rivers. Fish from Lake Turkana is sold in Lodwar town, which is the largest fish market in the area, although lots of fish are sold in other parts of the country, such as Eldoret, Nakuru and Nairobi (Lebashe et al, 2021). Other economic activities in the county include business activities in major towns and trading activities between businesspeople in Turkana county and western Kenya, North Rift Kenya, Uganda and South Sudan. Livelihood diversification efforts by pastoralists have been supported by development partners and the Government of Kenya through projects that support asset creation (food and cash) and market linkages.

Turkana county has had a long history of socio-economic and political marginalisation. The devolved system of government, which came into being in 2013 after the promulgation of a new constitution in 2010, aimed among other things to address marginalisation and other forms of socio-economic inequality and exclusion. According to a report published by the Commission for Revenue Allocation (CRA), however, Turkana is still one of the most marginalised counties in Kenya, based on an assessment of various indicators including road infrastructure, access to health facilities, access to water, historical injustices and access to electricity (CRA Survey report, 2012).

Ethnic composition

It is difficult to establish the exact percentages of the ethnic make-up of Turkana county, but

the Turkana people, an ethnic group native to Turkana, make up most of the people living in the county. Other ethnic groups found in Turkana county are the Pokot, Tugen, Samburu and Borana communities, all found mainly along the border areas. The Somali community, which runs businesses in Lodwar and other towns in the county, is also present. In recent years, with the onset of large investments and discovery of oil and gas in Turkana county, there has been increased migration by communities from other parts of Kenya into urban centres in Turkana, especially Lodwar and Lokichar (Turkana county Government, 2018).

Conflict context

The county can be perceived as having several 'layers' of conflict or tension: intercommunal conflicts along the Turkana and West Pokot border, which may be commercialised or politicised; confrontations with the state such as those that have occurred frequently in areas such as Kapedo; newer tensions between indigenous communities and refugees; and conflicts between the community and the government and Tullow Oil over the exploitation of oil resources and related interests such as land compensation and benefit sharing.

Figure 2: Map of Karamoja Cluster. (Source Catley et al, 2021)





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Turkana is part of the Karamoja complex conflict zone, also referred to as the ‘Karamoja Cluster’. This is a cross-border region covering approximately 8,400 km that transcends four countries: Ethiopia (southwest), Kenya (northwest), South Sudan (southeast) and Uganda (northeast), occupied by at least 13 pastoralist and agro-pastoralist communities with ethnic, linguistic and cultural similarities. These include Bokora, Dassenach, Didinga, Dodoth, Jie, Matheniko, Nyangatom, Thur, Pian, Pokot, Tepeth, Topotha and Turkana (IGAD Karamoja Cluster, 2022).

There is a high level of mobility across international borders by the Turkana, as well as their neighbours, the Toposa of South Sudan, the Nyangatom and Dassenach of Ethiopia and the Karamajong of Uganda. Due to exigencies and weather vagaries, mobility across the borders of Kenya, Ethiopia and South Sudan by these communities takes place as a mechanism of adaptation to climatic variability and intercommunal conflict over water and pasture resources. Livestock raids are common in the process of migration. Turkana pastoralists are heavily armed, owing to a thriving arms trade in the county across international borders from countries such as South Sudan and Somalia, which have both faced significant armed violence or civil war. Arms in the county are traced to several sources including South Sudan rebels, the Karamajong of Uganda and the Ethio-Somali Ogaden war. Some guns were also acquired from the Shifita war in the then Northern Frontier District of Kenya and others from the Ethiopian rebel group known as the Oromo Liberation Front (OLF) and the Somali terror group Al-Shabaab (Okolla, 2021 and Gumba et al, 2019). Given that the violence and conflict risks are significant, pastoralist women are often forced to take up non-traditional roles during conflict to protect their families and resources. Indeed, women carrying AK-47 rifles and children on their backs while they look after their livestock are a common sight in Turkana. This mostly occurs where men as heads of family have been killed or maimed (Mbugua, 2015).

1.2 Overview of the study

Focus and scope of the study

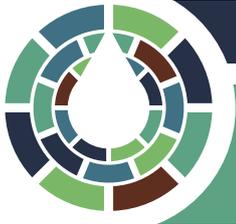
A scoping exercise carried out by WPS partners in mid-2021 confirmed that the Turkana Basin is and will be under pressure due to development interventions, population pressures and climate change impacts. This has negative impacts for ecosystems and communities and these impacts increase existing tensions in the region. The exercise identified four areas in Turkana North and Turkana Central sub-counties, namely Lodwar, Kalokol, Kibish and Todonyang, where the water stress and conflict risks are high, and thus these areas became the target area of study.

Objectives of the study

The WPS partnership commissioned a water-related conflict analysis and a participatory stakeholder/institutional analysis. The objectives are outlined below:

A. Stakeholder and institutional analysis

- Identify and map the relevant policy and institutional context on water, conflict and peace – including identifying the different roles/mandates, policies and formal procedures for key functions that influence water-related conflict prevention and resolution and allow communities to participate in decision-making processes.
- Identify and conduct a PIN (‘Position, Interest, Need’) analysis of relevant stakeholder groups, their role in the prevention or resolution of water-related conflict in Turkana, their mutual interactions, experiences, and effectiveness, factors that frustrate their effectiveness and how this has been and can be further strengthened through support by the WPS project.
- Assess the interest, capacity, and commitment of stakeholders to collaborate with the WPS project and identify potential entry points for the WPS project to work with relevant stakeholders and existing initiatives.



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B. Water-related conflict analysis

- Understand the role of water in society.
- Identify the key water-related local grievances that have driven socio-political tensions and conflict and the dynamics that drive and (may) mitigate them. Identify who has been involved in these conflicts and what impacts they have had on different groups.
- Identify the contributing and the mitigating factors of conflict escalation in this context and the positive and negative experiences of past interventions that aimed to influence these processes.

- Which actors influence peace and conflicts? How and why?

1.3 Lines of inquiry

This study sought to answer a series of questions, key among them:

- What is the legal, policy, institutional and regulatory framework for water-resource development and management and peacebuilding in Turkana county?
- Which stakeholders and networks / structures currently operate in the Turkana North and Turkana Central sub-counties? What roles do they play and what challenges do they face?
- What are the sources, level of access and use of water in the target areas? What factors cause or contribute to water-related conflict in the target areas?

1.4 Structure of the report

This report is divided into five key components: (i) the introduction, which provides an overview of Turkana county, the WPS project and this study; (ii) the methodology; (iii) findings and discussion on water-related conflict analysis and institutional and stakeholder mapping and (iv) conclusions and recommendations. The report also has annexes which include the data collection tools used and lists of respondents.

2. Methodology

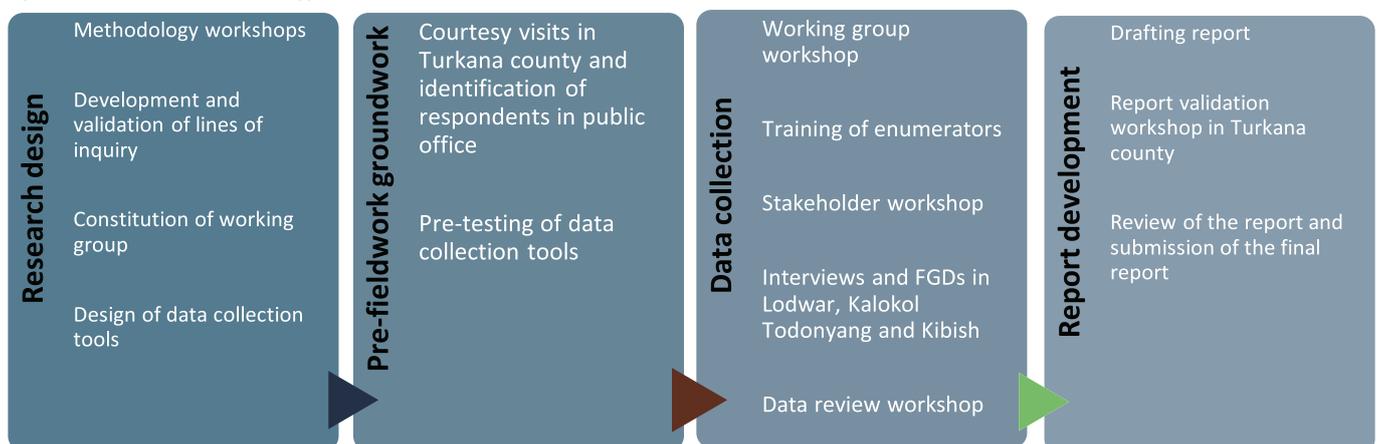
2.1 Research design

The research was conducted in Turkana county between November 2021 and February 2022. As mentioned in the introduction, this research focused on four areas of Turkana county, namely:

- Lodwar and Kalokol in Turkana Central sub-county
- Todonyang and Kibish located in Turkana North sub-county.

Owing to the vastness of Turkana and the long distances between some of the study areas, data collection was conducted in two phases. In the first phase (November to December 2021), the research team finalised the research

Figure 3: Research methodology.





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methodology and collected the data in Lodwar township; data collection in Kalokol, Todonyang and Kibish took place in January 2022.

As this research intended to analyse water-related conflict dynamics, as well as undertake stakeholder and institutional analysis by engaging local stakeholders, it adopted a qualitative research design. This research design was chosen to facilitate the understanding of the natural setting and dynamics in the analysis of the conflict context as it relates to access to water.

Figure 3 summarises the research methodology which is elaborated in subsequent sections.

2.2 Planning and pre-fieldwork activities

Data collection was preceded by the following processes and activities:

- a. consultations and methodology workshops with the WPS consortium aimed at strengthening the research design and lines of inquiry;
- b. courtesy visit to Lodwar to introduce the research and WPS teams to duty bearers and other stakeholders and communicate the objectives of the research to them;
- c. training of enumerators and pre-testing of data collections tools in Lodwar township;
- d. constitution of a research group, referred to as the 'working group', intended to help embed a participatory approach

in the data collection process, support the identification and mobilisation of respondents and enumeration, and help mitigate biases that could occur when a single person or institution conducts the stakeholder and institutional analysis. Members of the working group were identified through consultations with key informants. The criteria for selection were the individual's level of knowledge on and involvement in WPS in Turkana county and their willingness and ability to support the research process;

- e. working group workshop to introduce the research to the group members and discussing the role that they would play in the research process – the working group is expected to support the project implementation and facilitation in the future; and
- f. stakeholder mapping workshop – for more information on the stakeholder mapping process, see section 3.2 of this report.

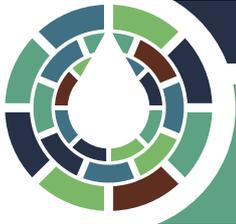
2.3 Data collection methods

To successfully complete the study, and to enhance quality and validity, the study used multiple methods of data collection and purposive sampling techniques. The main methods of data collection used were: analysis of literature including past studies; reports by the WPS secretariat and a review of the applicable policy and legal framework; a stakeholder

Role of the working group

The working group supported the research team to identify and mobilise respondents through a purposive method of sampling. This process was guided by the list of stakeholders that emanated from the stakeholder mapping workshop.

After data collection was concluded, a reflections workshop was held in Lodwar town with the working group. The purpose of the workshop was to discuss and validate the findings, identify key research themes and findings, and obtain feedback on the research process from the working group.



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mapping workshop; qualitative key informant interviews (KIIs); focus group discussions (FGDs) and observation.

After informing respondents about the purpose of the study and securing their consent, using semi-structured guides, FGDs and KIIs were carried out with various stakeholders including officials of the Turkana County Government, relevant officials of national government agencies and departments, Water Resource Users Associations (WRUAs), water vendors, community members and the business community. A total of 38 key informants were interviewed. Additionally, four FGDs of 48 people in total were conducted. (See Annex 4 for the breakdown per research area.)

To map relevant stakeholders at the county level, this research used mixed methods to gather data, including a stakeholder workshop, KIIs and FGDs. The stakeholder workshop was the main source of this data while KIIs and FGDs were used to augment the data collected during the workshop. The workshop was attended by representatives of stakeholders from the four study areas. The mapping exercise focused on identifying existing stakeholders, their interests and power in water, peace and security. A total of 16 stakeholder representatives attended the workshop.

With regards to the process of stakeholder mapping, an open-ended guide was used to engage stakeholders and facilitate the brainstorming exercise. To start with, the participants listed all the stakeholders in each of the study areas; they then proceeded to establish the stakeholders' interests, and their level of power in water, peace and security in the study areas. To do so, the participants identified stakeholders who:

1. had either positive or negative engagement/contribution to water, peace and security;
2. were affected by the outcome of water-related conflict; and
3. had ability to shape/influence water, peace and security in the study areas.

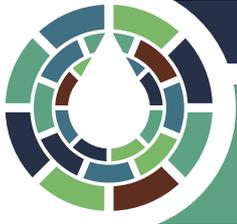
Finally, the participants created a stakeholders' map using Mendelow's stakeholder matrix (power against interest grid), as shown in the findings section of this report.

2.4 Data analysis and report writing

Data analysis started in the field. As data was gathered, enumerators sorted and synthesised the field notes to identify key issues and categorise the data in line with these issues. Furthermore, for the stakeholder mapping exercises, data was analysed in discussion with respondents through drawing maps as well as keying information into the Excel templates designed by the research team. Additionally, the research team, in discussion with the working group members, undertook the categorisation and prioritisation of the data during the reflections workshop. The information arising out of these processes was further analysed against the research objectives in preparation for and during report writing to interpret it. The draft report was validated in a workshop in Lodwar, which was attended by respondents, representatives of the WPS partnership and key actors in water, peace and security in Turkana county.

2.5 Limitations of the study

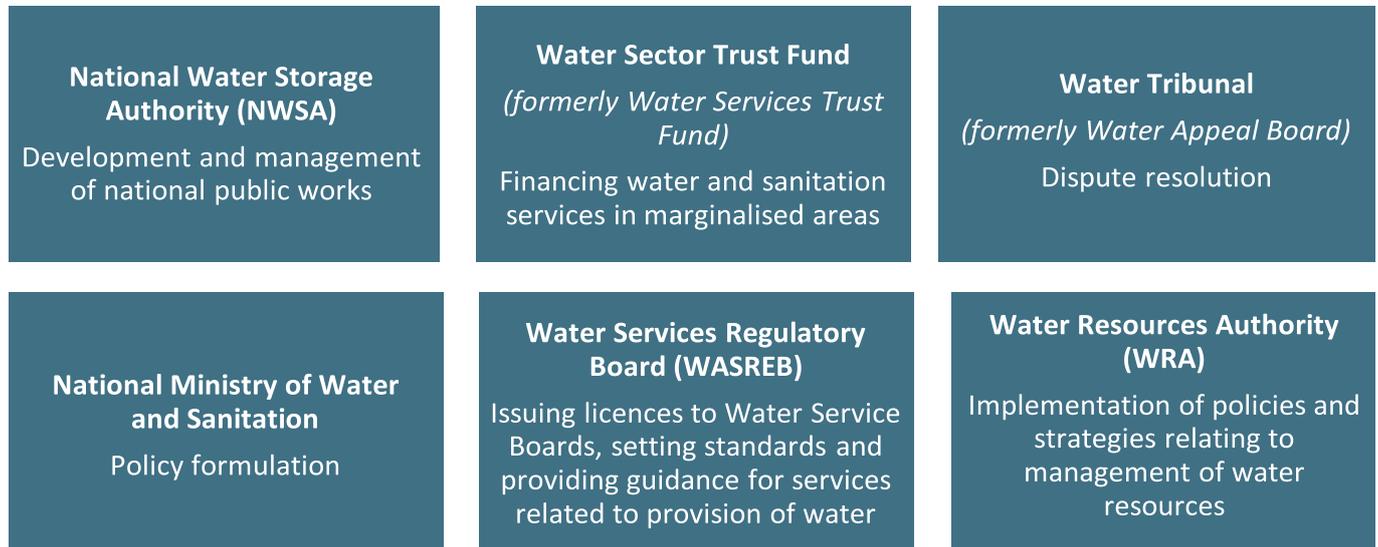
The research team was unable to interview some of the key respondents as planned, among them the nakana and the Kenya Fisheries and Marine Research Institute in Kalokol. The former declined participation in the study and the latter was not available for interview. To mitigate this, the research team widened its list of respondents to access as much of the information from the missing respondents as possible.



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Figure 4: Key water institutions at the national level.



3. Policy, legal and institutional frameworks

3.1 Water resource management

National policy and institutional framework

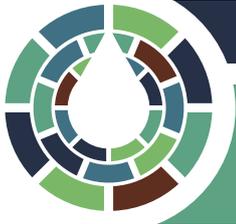
Water resource management in Kenya uses a catchment-area approach through the Water Resource Authority (WRA), Kenya's lead agency for water resource management. This approach is operationalised through the Water Act 2016 and is aligned with the requirement of devolution in constitution of Kenya 2010 where the county governments have responsibility for water management and implementation of national government policies on water conservation (Roy et al, 2018). Figure 4 presents the key national institutions created by the Water Act 2016 and a summary of their functions.

The WRA is charged with the implementation of national policies and strategies concerning management of water resources. WRA is a state corporation under the Ministry of Water and Sanitation, established under section 11 of the Water Act 2016.

It has six regional offices across the country, which cover five major water towers: Mau Complex, Aberdares, Mount Elgon, Mount Kenya and Cherangani Hills. The six regional offices of WRA are: Lake Victoria South catchment area in Kisumu, Ewaso Nyiro catchment area in Nanyuki, Tana catchment area in Embu, Athi catchment area in Machakos, Lake Victoria North catchment area in Kakamega and Rift Valley catchment area in Nakuru. These regional offices manage a total of 26 sub-regional offices across the country.

At the community level are the Water Resource Users Associations (WRUAs), water service providers and consumers. The WRUAs are established at the sub-basin level by section 29 of the Water Act 2016. They are associations of water users, riparian landowners and other stakeholders, and are responsible for the "collaborative management of water resources and resolution of conflicts concerning the use of water resources" (Water Act 2016, section 29 (2)). According to the Water Act 2016, "the basin water resources committees may contract WRUAs as agents to perform certain duties in water resource management" (Water Act 2016, section 29(4)). WRUAs are funded by

¹ Nakana are water cartels; for more information see section 4.



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the Water Services Trust Fund (WSTF). Water service providers are established by section 78 of the Water Act 2016 and have the responsibility of “provision of water services within the specific area of licence” (Water Act 2016, section 78(1)(a)) and “development of county assets for water service provision” (Water Act 2016, section 78 (1) (b)).

Research shows that among the challenges that affect WRUAs is low capacity for water governance. This is based on five indicators: (i) organisational skills; (ii) local community/member financial contribution; (iii) funding model, other external financial resource mobilisation and diversification of funds; (iv) monitoring and communication of output and outcomes as an organisation; and (v) links and cooperation with government agencies. According to (Liambila, (2015) lack of basin-wide coordination among water users has also been found to be a problem. This is especially in relation to the lack of coordination among the various WRUAs working within a larger basin.

The Water Act 2016 has come under sharp criticism with some researchers using the phrase “same script, different cast” to describe how superficial the amendments to the Water Act 2002 were, which culminated in the development of the Water Act 2016. Part of this included maintaining the same institutional framework as reflected in figure 4, replacing a few others or renaming and defining their membership (Gachenga, 2019).

The Council of Governors through Petition 280 of 2017 (Kenya Law, 2017) filed at the Constitution and the Human Rights Division of the High Court of Kenya sought orders challenging the constitutionality of the Lake Basin Development Authority Act; the Kerio Valley Development Authority Act; the Tana

and Athi River Development Authority Act; the Ewaso Ng’iro South River Basin Development Authority Act; the Coast Development Authority Act; and the Ewaso Ng’iro North River Basin Development Authority Act. This was on the basis that these acts “vest the respective authorities with power to undertake integrated planning, coordination and implementation of projects and programmes in their areas of jurisdiction in violation of the provisions of Article 6(2),² Article 186,³ Article 189⁴ and section 8 of Part 2 of the Fourth Schedule⁵ of the Constitution of Kenya, 2016”. Although this matter was dismissed by the court on the basis that the petitioners had not exhausted procedures set out under the Constitution of Kenya 2010 and the Inter-governmental Relations Act 2012 as regards disputes between national and county governments, it brought to the fore concerns by county governments about the inadequacy of devolved powers on water resource management in practice and that these legislations and the Water Act 2016 perpetuate a centralised government by excluding county governments from water governance.

County-level policy and institutional framework

The Turkana County Water Act 2019

The Turkana County Water Act 2019 establishes and regulates water supply, sewerage and sanitation services in Turkana county, including effective administration of water supply, sanitation and sewerage services; holding of water works and water service provision assets on behalf of the county; the regulation of water use rights; and the coordination of the activities of institutional stakeholders in water services provision in the county. It also seeks to promote public participation in water services regulation (Turkana County Government, Turkana County Water Act 2019).

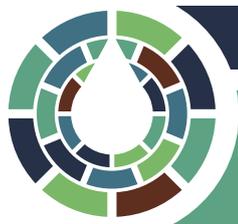
In line with the Constitution of Kenya 2010, the Turkana County Water Act 2019 guarantees the right to clean and safe water in adequate quantities and reasonable standards of sanitation, (Turkana County Water Act 2019 section 4(1) and provides that the county shall

2. *Distinctness and interdependence of national and county-level governments*

3. *Respective powers and functions of national and county governments*

4. *Cooperation between national and county governments*

5. *County planning and development*



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put in place measures for the progressive realisation of this right.

In line with the Constitution of Kenya 2010, the Turkana County Water Act 2019 guarantees the right to clean and safe water in adequate quantities and reasonable standards of sanitation (section 4(1)) and provides that the county shall put in place measures for the progressive realisation of this right (section 4(2)). Further to this, the act prioritises water uses as follows (section 5):

- a. first priority: domestic use (drinking, cooking, hygiene etc.);
- b. second priority: livestock and support of pastoral livelihoods;
- c. third priority: water for food crops and fodder production including irrigation;
- d. fourth priority: water for industrial activities; and
- e. fifth priority: water for any other use apart from those above.

The Turkana County Water Act 2019 also establishes the following structures whose functions are summarised in the table 1.

Table 1: Structures created by Turkana County Water Act 2019.

Water structures (offices/institutions/ departments)	Mandate/functions
Water department (section 7)	Overseeing provision and management of water supply, sewerage and sanitation facilities
County Water Sector Coordination Committee Forum (section 9)	A consultation forum for all the institutional stakeholders in the county on matters related to water and sanitation (the membership of this forum is provided under Article 9(2) of the Act)
Sub-county Water Sector Coordination Committee forum (section 13)	Provide a forum for reporting the activities of institutional stakeholders within the sub-county; deliberate on issues related to water supply and sanitation services in the sub-county; recommend persons and institutions seeking accreditation to act as institutional stakeholders in the sub-county, among other functions
County Water Sector Secretariat	Coordinate the registration of institutional stakeholders; compile a report of the activities of institutional stakeholders in each ward and sub-county every financial year and submit the same to the county assembly; organise and provide secretarial services for the meetings of the County and Sub-County Water Sector Coordination Committees; develop a budget to be approved by the County Executive Member for designated uses, among other functions
Water and Sewerage Services Company (section 24)	Serve as water and sewerage service providers for urban and rural areas in the county; responsible for maintenance, operation and management of water supply and sewerage services in the areas under their jurisdiction as shall be determined by the department
Turkana County Water Service Fund (established and administered in accordance with section 116 of the Public Finance Management Act 2012)	Financing water services delivery; financing the activities of the county institutional stakeholders' forum, sub-county forums and WRUAs; development of water infrastructure; and payment of compensation and liability arising from duties performed under the Turkana County Government Water Act 2019



At the time of writing, the Turkana County Government was in the process of establishing requisite structures and hiring staff in the implementation of the Turkana County Water Act 2019. Among the initiatives that the county was working on was setting up the Turkana Rural Water Services Company, as provided for by this legislation. Recruitment of directors for the Turkana Rural Water Service Company was also underway.

The Turkana County Water Act 2019 addresses gender sensitivity, albeit narrowly under the section vulnerable groups(Article 6 (a)), but it is silent on conflict sensitivity, which is material in the context of Turkana county.

Turkana County Water and Sewerage Services Sector Policy 2018

This policy presents the overall development agenda and commitment of Turkana County Government on the water sector and forms part of the framework for the implementation of the CIDP. While it recognises that Turkana county is arid and semi-arid and that Turkana faces water scarcity, the policy is silent on conflict dynamics related to access to water, and consequently lacks policy actions that address water, peace and security.

Turkana County Water, Sanitation Services Sector Strategic Plan, 2017-2021

At the time of conducting this study, the Turkana County Government was in the process of developing a strategic plan for 2022-2026 because the strategic planning period of 2017-2021 was coming to an end. A review of the Turkana County Water, Sanitation Services Sector Strategic Plan, 2017-2021 showed that this plan, like the Turkana County Water and Sewerage Services Sector Policy was silent on conflict dynamics in its situational analysis sections. Further, its strategic goals and interventions did not address the interlinkages between water, conflict and peace.

Additionally, Turkana county was in the process of developing the Turkana County Water Regulations; the Turkana County Water Sector Strategy, 2021-2025; and the Turkana County Water and Sewerage Services Sector Policy 2021. This research acknowledges the progress made by the county in policy formulation and implementation, but the absence of a comprehensive policy, legal and regulatory framework that effectively addresses peace and security as strategic issues in water resource management impedes effective governance of water resources in the county.

3.2 Peace and other related policy frameworks

National frameworks

National Policy on Peacebuilding and Conflict Management 2011

The National Policy on Peacebuilding and Conflict Management 2011 represents an attempt by the Government of Kenya and other stakeholders to bring stability to the country and create durable solutions to violent conflict. It has commendable value in seeking to enhance the prevention, mitigation and management of conflicts. It provides a mechanism for coordination, resource mobilisation and synergy among stakeholders involved in peacebuilding and conflict management. The mission of this policy is to “promote sustainable peace through a collaborative institutional framework between state and non-state actors and Kenyan communities”.

The policy established the following structures:

1. **National Peace Council (NPC):** This is a functional platform for consultations, collaboration, cooperation and coordination by all peace actors and stakeholders at the national level. It is also a resource mobilisation, allocation and accountability forum.
2. **NPC Secretariat:** This oversees the day-to-day operations of the NPC.
3. **County Peace Secretariat:** This provides a platform for consultations, cooperation



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and coordination of peace issues by representatives from national and county government, civil society and other stakeholders at the county level. The secretariat has the mandate of monitoring and supporting the work of local peace committees within and across the county.

- 4. Local Peace Committees (LPCs):** These are to be constituted at the local level in line with the provisions on devolved structures. The LPCs are hybrid institutions that bring together synergies between traditional and formal mechanisms of conflict resolution.
- 5. Mediation Support Unit:** A critical pool of expertise that is to be established by the NPC to facilitate effective early warning and response. Based at the national level, this unit is supposed to provide and coordinate mediation and preventive, diplomacy support to conflict situations both internally and cross-border; however, the unit had not been established as of 2021.

National Steering Committee on Peacebuilding and Conflict Management (NSC)

This is an interagency committee established in 2001 within the Ministry of Interior and Coordination of National Government. Its mandate is to coordinate peacebuilding and conflict-management efforts within Kenya and across its borders with neighbouring countries. Its membership consists of state and non-state agencies working on peace and security, and membership is based on programmatic areas of engagement as determined by existing sub-committees. Among the current members are the Ministry of Water, Irrigation and Regional Authorities, the Peacebuilding and Conflict Management Directorate, the Ministry of Lands and the Ministry of Environment and Natural Resources.

National Cohesion and Peacebuilding Bill 2021

The National Cohesion and Peacebuilding Bill 2011 (Kenya Gazette Supplement, 2021) “(a) gives effect to Articles 10 and 27 of the Constitution

of Kenya 2010, on the promotion of national unity and discrimination on ethnic grounds; (b) provides a framework for the promotion of national cohesion and peacebuilding; (c) provides a mechanism for implementation of interventions aimed at promoting national cohesion; and (d) provides a framework for the promotion of national values and principles of governance”.

The bill establishes the National Cohesion and Peacebuilding Commission, a body corporate whose mandate is to formulate and implement strategies, plans and programmes for the promotion of national unity (Article 6). It legislates matters relating to discrimination, hate speech and negative ethnicity (Part IV) and provides a complaints, investigations and enforcement mechanism to address breach of any of these matters (Part V).

National Action Plan on Climate Change, 2018-2022

This action plan sets out actions to implement the Climate Change Act 2016. It has seven priority climate action areas, as well as strategic objectives and main actions for each. The action plan recognises that climate change contributes to the increasing intensity and magnitude of weather-related disasters in Kenya, which have aggravated conflicts, mostly over natural resources, eroded the ability of communities to cope and contributed to security threats. It also recognises climate change-induced, cross-border conflict risks highlighting cross-county conflicts such as Laikipia and Turkana, as well as international cross-border conflict risks with other countries such as Ethiopia and Tanzania.

Among the seven climate-change priorities is water and the blue economy (climate change priority 3). The goal of this priority is to enhance resilience of the blue economy and water sector by ensuring access to and efficient use of water for agriculture, manufacturing, domestic, wildlife, and other uses. This is to be achieved through the following actions (Ministry of Environment and Forestry, 2018):



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1. Increase annual per capita water availability through the development of water infrastructure.
2. Climate proof water harvesting and water storage infrastructure, and improve flood control.
3. Increase affordable water harvesting-based livelihood programmes.
4. Promote water efficiency (monitor, reduce, re-use, and recycle).
5. Improve access to good quality water.
6. Improve climate resilience of coastal communities.
7. Climate proof coastal infrastructure.

Ultimately, the action plan aims to increase annual per capita water availability to the global benchmark of 1,000m³ from the current level of 647m³.

Climate change priority 3 is related to all the other six priorities within the action plan, namely, disaster risk management (priority 1); food and nutrition security (priority 2); forestry, wildlife and tourism (priority 4); health, sanitation and human settlements (priority 5); and manufacturing (priority 6).

County-level policy framework

Turkana County Peacebuilding and Conflict Management Bill 2021

This bill seeks to “provide for peace organs at the county level, and to contribute to the regional organs in matters of common interest of peacebuilding and conflict management, in line with Article 189(2) of the Constitution, the Turkana County FCDC Act, and the Intergovernmental Relations Act and for connected purposes”. For effective peacebuilding and conflict-management operations, the bill establishes the following conflict corridors (section 6(1)).

- Turkana-Dassenach;
- Turkana-Nyangtom;
- Turkana-Toposa;
- Turkana-Dodoth/Jie;
- Turkana-Matheniko/Tepeth;
- Turkana-West Pokot;

- Turkana-Baringo;
- Turkana-Samburu; and
- Turkana-Marsabit.

Peacebuilding actors in respective corridors are to be coordinated by sub-county administrators and their respective peacebuilding and conflict management officers (section 6(2)). The County Department for Peace is to collaborate with Water, Health, Education, Agriculture, and Infrastructure, trade, Lands and Tourism in the implementation of socio-economic empowerment and sustainable peace in the county(section 7). The bill creates several peace organs, including the Turkana County Peace Steering Committee (section 8), the County Assembly Committee for Peacebuilding and Conflict Management (section 13), the County Department for Peacebuilding and Conflict Management(section 1) and the County Women Peace Caucus (section 23). These peace organs are supposed to collaborate with other relevant peacebuilding actors such as the Africa Union Commission for Peace and Security, key national ministries and the Kenya International Boundaries Office (KIBO) (section 36) .

Having analysed several institutional frameworks and both water and peacebuilding policy instruments, it is clear that there are no policy interlinkages on the water and peace nexus and there is need for collaboration within the policy frameworks. As policies and legislation do not offer real groundwork, it is also important to do additional lower-level documents (e.g. programme and project reports and annual reports) to capture government practice and to complement real implementation and concrete actions.

Regional frameworks

Frontier Counties Peacebuilding and Conflict Management Policy 2022

This policy is an intervention to realise the aspiration of “a peaceful, cohesive, and prosperous Frontier Counties Development Council (FCDC) region by promoting conflict prevention, mitigation, preparedness, and coordination”. This policy covers member counties of the FCDC that currently include



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Garissa, Isiolo, Lamu, Mandera, Marsabit, Samburu, Tana River, Turkana, Wajir, and West Pokot. The FCDC represents highly diverse communities with different languages, ecologies, livelihoods, socio-political landscapes and other differences.

The policy is premised on the observation that the current institutional, legal and policy frameworks do not fully address coordinated planning, programming, and implementation of responsive peace initiatives in the FCDC region. It acknowledges that strong institutions are the foundation for achieving peace and security objectives at all levels and therefore seeks to develop and operationalise an effective framework for dealing with contemporary peace and security challenges within the above counties to contribute to local, national and regional peace, stability, and economic prosperity.

4. Findings and analysis

4.1 Cross-cutting issues on water resource management

This section gives an overview of cross-cutting issues related to access to water, management of water resources and water-related conflicts in the four research areas. Contextual differences in the research areas are analysed in section 4.2.

Table 2: Types of water sources across the research areas

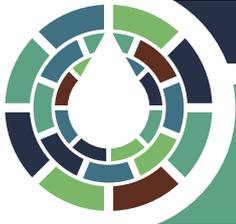
Sources of water	Research areas
Boreholes	Todonyang, Kibish, Lodwar, Kalokol
Rivers and streams	Todonyang, Kibish, Lodwar, Kalokol
Lake Turkana	Kalokol and Turkana North
Springs	Kibish and Turkana North
Rock catchment	Turkana North (Liwan)
Water pans	Kibish, Kalokol and Turkana North

Water sources and uses

To understand water-related conflicts, this research undertook a mapping of water sources in each of the four research areas. The sources of water identified were Lake Turkana, boreholes, rock catchment, rivers and streams, springs and water pans. The table below illustrates the types of available sources of water across the research areas.

From the FGDs and KIIs, this research documented different uses of water: domestic use (drinking, cooking, cleaning etc.), fishing, cultivation, watering livestock and commercial use. For domestic needs, water users in Turkana North and Turkana Central sub-counties rely largely on boreholes, which are constructed by the government, development organisations, individuals and businesses. Privately owned boreholes are predominantly constructed by businesses such as hotels, wealthy residents and politicians. Hotels, which were found to be major consumers of water, were found in Lodwar town and a few others were found in Kalokol. Fishing takes place in Lake Turkana; as such, fishing activities were found in Kalokol and Turkana North, which are adjacent to Lake Turkana.

This research found that access to water was challenging in all the research areas. Some of the factors affecting access to water were low water table, long distances to water points, low quantities of water (water scarcity) and salinity. Water salinity was also found to be a major challenge across all the research areas; however, the county has plans to invest in desalination plants to address the salinity challenge in most water sources (Turkana County Water and Sewerage Services Sector Policy 2018). Individualistic and illegal practices in the form of water grabbing and diversion of water from the main supply lines, to serve homes and premises of some wealthy people and the political class, contributed to water scarcity to a large extent. In Kalokol, for example, it was found that piped water from boreholes is diverted to serve wealthy and influential people first, after which it is distributed to other consumers.



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Insecurity was found to be a cross-cutting problem in all the research areas, its contribution to impeding access to water was found to be highest in Kibish and Todonyang, owing to the violent cross-border conflicts that are rife in these areas.

Through the FGDs, the working group meetings and the stakeholder mapping workshop, this study involved participants in drawing maps and mapping water points and areas affected by conflicts in the four research areas. From this exercise, it was evident that there was a strong link between access to water and conflict because it emerged that areas that had high incidence of conflicts were also those that had severe constraints to access to water. The maps presented in section 4.2 illustrate this correlation.

Governance challenges

The overriding principal driver of water sector reforms in Kenya has been the rationale that the governance problem facing the water sector is attributable to centralisation. It was therefore hoped that the devolution of water management introduced by the Constitution of Kenya 2010 would entirely cure this problem (Gachenga, 2019); however, this research found weak governance to be one of the most pronounced challenges affecting access to water in the four study areas. Lodwar township featured in the local media in 2021 because of the disconnection of water services in the area due to a standoff between LOWASCO and Kenya Power over an outstanding electricity bill of KES 11 million (approximately US\$110,000) (Etyang, 2021). Because of the debt, Kenya Power cut off electricity supply to Lodwar's water systems, temporarily terminating water supply to users. This incident points to mismanagement as well as governance deficiencies on the part of LOWASCO, which is a public company charged with "maintenance, operation and management of water supply and sewerage services in the areas under its jurisdiction", as determined by the Department of Water within the Turkana County Government (Turkana County Water Act 2019, section 25). At the time of this study, LOWASCO was the sole water company in

Turkana county and mandated to supply water in Lodwar town and its environs, typically a 50km radius (Turkana County Water and Sewerage Services Sector Policy 2018). As a result, residents of Todonyang and Kibish are excluded from public water supply services.

This research identified factors linked to weak governance and poor management of water resources and distribution of water, all of which hinder access to water. For example, there has been a proliferation of boreholes in Lodwar township as business activity and human occupation increase; however, there appears to be no regulation of where and how many boreholes are constructed, which impacts on the groundwater level and the output of the boreholes. Furthermore, water cartels are active, reportedly diverting piped water to their storage tanks for sale, as well as to the homes and business premises of influential, wealthy and well-connected individuals. They also, at times, vandalise the water infrastructure to damage water distribution and create demand for the water they have diverted. Furthermore, it was reported by a key informant from LOWASCO that some local politicians, intent on not paying for water, also divert water to their homes through illegal connections. Diversion of water, which is an illegal act, and illegal connections lower the water pressure in the main pipes, slowing down the water supply and limiting the amount of water available to the public. Such practices are on the radar of LOWASCO, but due to financial and political pressure, LOWASCO is reluctant to curb them. The key informant from LOWASCO reported that frequent protests by members of the public have been witnessed during instances of water rationing.

The proliferation of water cartels is not limited to Lodwar. In Kalokol, which is adjacent to Lake Turkana, residents prefer accessing water for domestic use from *lagas*, which are shallow wells dug along the River Nakiria, and a borehole in Emeyan. An organised water cartel or *nakana* has connected illegal pipes to the main line diverting water to huge underground tanks; the tanks are filled at night draining the boreholes and depriving the local population of water. The same cartel limits the digging of *lagas* along River Nakiria because it also draws



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water from existing *lagas* for sale to residents. *Lagas* are therefore a source of conflict between community members who try and access water directly from them free of charge and water cartels that draw the water for sale.

Sufficient development and sustainable management of water infrastructures has faced challenges in Turkana. Although the population has significantly increased over the years, especially in Lodwar, LOWASCO has not expanded water infrastructure to match the rapidly growing population. As a result, the piped water network only covers Lodwar town, which is just a small portion of Lodwar

township. Further to this, LOWASCO has 11 boreholes situated along River Turkwel, which are within a radius of about 10km (Wanguba, 2018). Maintenance and repairs of the water pipes and boreholes in the township are poor, which directly impacts the availability of the water.

Turkana county also allows private vendors to sell water. At the Moi Gardens aquifer, LOWASCO has designated a pipe for licensed water vendors who fill up their water bowsers and deliver the water to their clients (residents and businesses) for a fee. This is done legally, but the privatisation of water in this way

Weak governance and mismanagement: A case study of water kiosks in Canaan camp

Canaan camp is a facility housing about 700 households of internally displaced persons (IDPs). It is located in Kanamkemer in Lodwar township. The IDPs mainly access water from three water kiosks that were set up by an aid agency as part of a pilot programme about four years ago and later handed over to LOWASCO to manage. The IDPs use digital cards to draw water from the kiosks. They acquire the cards from LOWASCO at a cost of KES400 (approximately US\$3.49). To access water, they load the digital card with funds through purchasing pre-paid tokens (using mobile money) depending on the amount of money they are willing to spend. Once they have spent all the funds, they must reload the card with pre-paid tokens to continue accessing water. The camp has a Water Users Committee of 50 members.

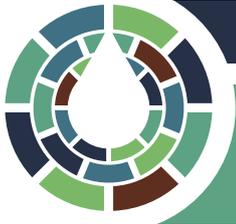
According to a key informant interviewed, as well as data gathered through FGDs, this system has been very poorly managed. Water is only available three days a week on Mondays, Wednesdays and Fridays; however, the service is unreliable because at times water in the kiosks is unavailable for days and sometimes for weeks. Further to this, other inefficiencies were reported by respondents:

- Low token limit – the digital card system is set up in a way that means the user cannot load more than KES500 (approximately US\$4.37) at a time. Given that users buy water at KES4 (approximately US\$0.03) per 20 litre jerrycan, the tokens run out quickly, requiring users to load tokens often. It is estimated that a family of 10 people uses KES1,000 (approximately US\$8.74) per month.
- Irreplaceability of lost or damaged cards – LOWASCO neither replaces such cards nor rolls over the balances that may have been on the card before damage or loss. Thus, in the event of loss or damage of a card, the user loses any balance on the card.
- Prohibition of rolling over of funds – when a digital card expires, the balance of unspent tokens cannot be rolled over to the newly issued card leading to financial loss for the user.

In the event of water shortage, residents of Canaan buy water in Kanamkemer centre or Lodwar town both of which are a long distance away from the camp.

To improve access to water at the camp and enhance efficiency of water supply, the inefficiencies listed above need to be addressed. Further, residents need to be provided with alternatives to supplement the water kiosks. While construction of boreholes has previously been suggested by the Water Users Committee as a solution to this problem, LOWASCO shot it down on the basis of high costs associated with sinking boreholes. Previously, the county government in partnership with LOWASCO supplied water to residents of Canaan camp during periods of drought using water bowsers but this was later discontinued.

Source: FGDs and KIIs



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hinders universal access to water as articulated in Sustainable Development Goal (SDG) 6 because water should be regarded not just as a natural resource to be managed and used, but as a fundamental human right to which all people are entitled without discrimination (SDG 6).

Gender, water and conflict

Like in many parts of Kenya, women in Turkana county are under-represented in natural resource management and peacebuilding and they are also disproportionately affected by poor natural resource management because of gendered power relations that deny women access to resources such as land and water. In Kalokol, along the riverbeds, many women are seen digging the shallow wells by hand using rudimentary tools putting themselves at risk and regularly threatened by the water cartels, who are mostly men, because they control the riverbeds and prohibit communities from digging *lagas* themselves. Due to the scarcity of water, women and girls must often travel long distances in search of water, putting them at risk of physical and gender-based violence and leaving limited time to focus on education and other income-generating activities. Given the societal role of women being the primary providers of water, food and energy at the household level, they must therefore bear the heaviest impact from the scarcity of water resources.

Furthermore, community participation in water resources, water points and more specifically borehole management often favours local elites, especially men, limiting women's participation in the decision-making process and impacting on their specific needs and vulnerability. Men dominate decision-making on water management and determine the programme and timetabling to favour livestock-keeping responsibilities more than domestic tasks. Given the amount of water required for livestock is greater than domestic needs, in the event that water sources dry out, men generally would favour prioritising the available water for the livestock than for domestic use. As a result, women may have to travel long distances in search of water for household use. During the

interviews this appeared to be a frequent source of tension between men and women over the use of water.

4.2 Analysis of water-related conflicts per sub-county

This section analyses data gathered through the KIIs, FGDs and workshops. The maps were drawn using data collected through a mapping of water sources and conflict that was done by the respondents with the facilitation of the research team. As pastoralism is the key economic activity in the research area, and it revolves around livestock, the conflicts discussed are predominantly about livestock and its related productive assets – water, land and pasture. The analysis also includes data on conflicts related to access to water for domestic use and to a lesser extent conflicts related to other uses of water such as fishery and commercial activities.

Lodwar township

Lodwar township is an urban area in Turkana Central sub-county and one of the sub-county's five administrative wards. The main source of water in Lodwar township is boreholes, which are connected to the water distribution system managed by LOWASCO. LOWASCO is responsible for distribution and management of water distribution infrastructure. It is important to note that piped water is only available in Lodwar's Central Business District (CBD). The water pipes serve business premises, offices and homes within the CBD. Outside the CBD, water users access water from water kiosks, pumped from the boreholes and aquifers.

Aside from the piped water, other sources of water found in Lodwar include water kiosks and two aquifers, namely, the Napuu and Moi Gardens aquifers. The Moi Gardens aquifer, which is situated along River Turkwel, is the main aquifer used to supply tapped water in the township because it has water all year round. According to a key informant from LOWASCO, the WRA monitors water levels in Moi Gardens



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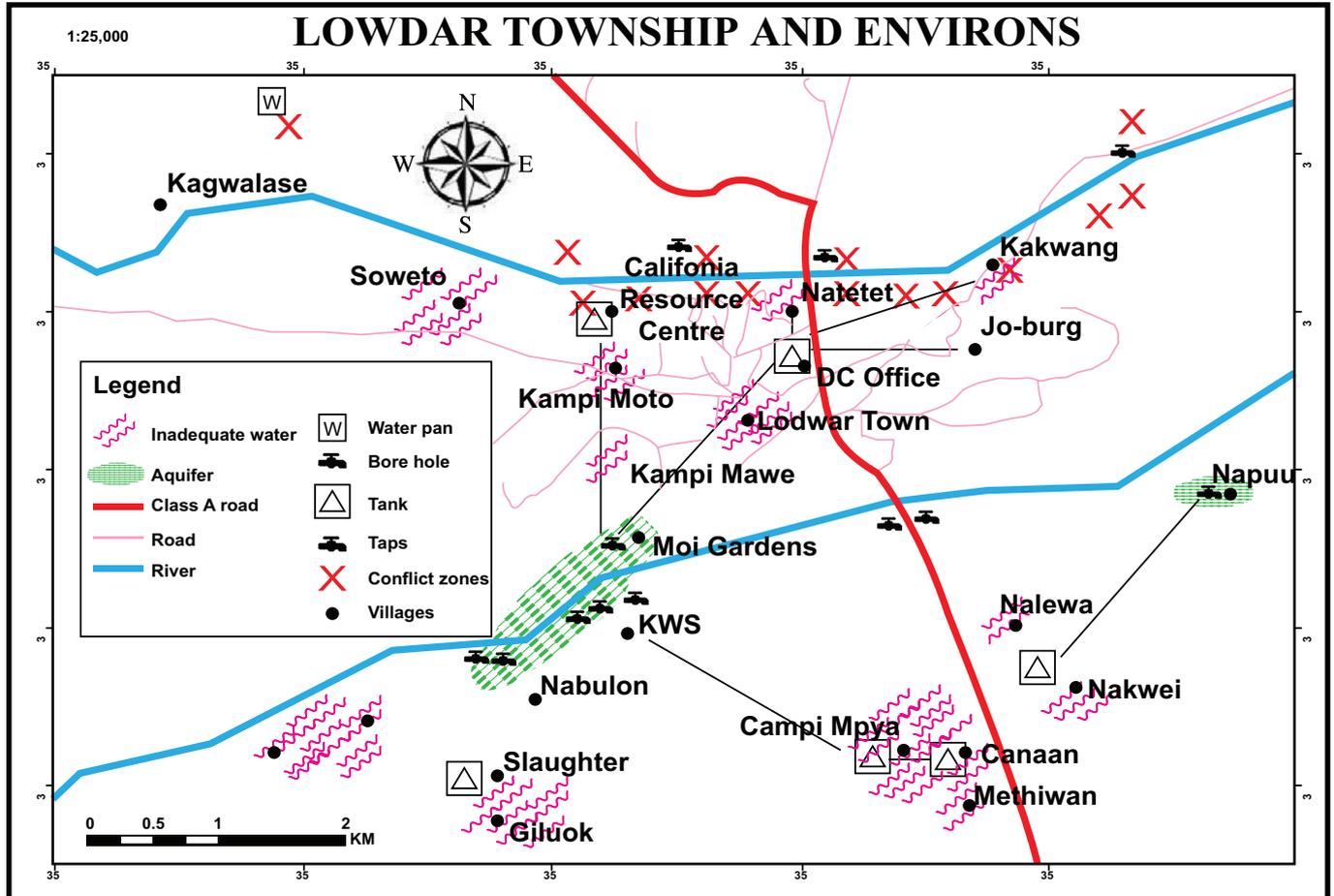
aquifer on a quarterly basis. Residents of Lodwar township also access water from the River Turkwel, which is the only perennial river in the county and flows from Mount Elgon to Lake Turkana through Lodwar, as well as shallow wells dug by hand along rivers and streams (Hirpa, 2018). There are also water vendors who buy water from LOWASCO and supply to residents for a fee. The map in figure 5 illustrates the location of different water points, as well conflict hotspots in Lodwar township.

It is evident from the map that conflicts are pronounced around water points, including the boreholes, and neighbourhoods mainly along the River Kagwalase, which unlike the River Turkwel is a seasonal river. According to the respondents, the conflicts around this river are the result of a scramble for water that intensifies during periods where the output is very low.

Vandalism of water pipes by cartels and herders was found to be a common occurrence in Lodwar township. The former vandalise water pipes to create demand for the water they sell to residents and businesses, while the latter engage in vandalism to siphon water from the pipes to provide water to their animals. Vandalism of water pipes and the general state of disrepair of the pipes have been among the main grievances by local communities against LOWASCO. These grievances arise from the perception that LOWASCO does little to protect water infrastructure against vandalism and to hold accountable those found engaging in this unlawful practice.

Among the challenges that LOWASCO faces is supplying sufficient and clean water. This is due to a ballooning population in the county, a situation that has increased competition

Figure 5: Water points and conflict areas in Lodwar township. (Source: KIIs, FGDs and conflict analysis)





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for the limited water resources available. This increase, which is close to seven-fold over a period of 40 years, has impacted population growth in Lodwar township because it has led to increased urbanisation. Other factors that have contributed to increased urbanisation in Lodwar are the expansion of the youth population, rural-urban migration resulting from recurrent droughts, rapid growth in large investments and the proliferation of businesses in the area.

Water-related conflict dynamics in Lodwar township

The challenges of access to water discussed in the previous section have created discontent, grievances and tensions among water users. Top among the complaints recorded in this study were corruption within LOWASCO as well as collusion between LOWASCO and private water vendors, politicians and other local elites to disable water infrastructure and distribution services and water grabbing for the benefit of vendors, some LOWASCO officials and local elites.

In summary, different types of water-related conflicts and grievances in Lodwar township emerged from this study. These were:

- a. **Inter-household conflicts:** These entail conflicts between households over hand-dug wells. This happens when households who have dug the wells, and therefore claim ownership over the wells, restrict other households from accessing water from them. This creates tensions and enmity among households.
- b. **Intra-community conflicts over access to borehole water:** These are conflicts arising out of competition for access to borehole water within a particular community. Although an equitable rotational method has been devised to prevent conflicts, this is often breached as some people fetch water on days when they are not supposed to according to the rotation schedule, leading to disagreements and squabbles.

- c. **Inter-community and inter-clan conflicts over pasture and water:** These are the most dominant in Lodwar township and occur between communities or two different villages when herders of one community or village migrate into the village of the other community or village looking for pasture and water. These conflicts often escalate to violence if parties do not agree to shared access to these resources. Similar conflicts take place at clan level when members of one clan access water points and pasture belonging to a different clan without seeking approval from that clan.
- d. **Conflicts between LOWASCO and Kenya Power:** There was a standoff between the two public institutions over overdue payments in 2021.
- e. **Community discontent and grievances over water shortage, high cost of water and poor governance:** These are mainly non-violent and consist of grievances from communities over inequality in access to water, corruption and adverse impacts on their livelihoods.

Kalokol

Kalokol is a ward in Turkana Central sub-county. It has suffered severe water shortages over the years owing to long periods of drought; respondents described the water scarcity problem in the area as a historical one. The main source of water in Kalokol is Lake Turkana owing to Kalokol's proximity to the lake. Water users in Kalokol also access water from boreholes and shallow wells dug along the River Nakiria, a seasonal river that is the main source of fresh water in Kalokol. Given that River Nakiria is seasonal and there are far too many people and the water cartel accessing water from the *lagas*, the *lagas* become depleted during dry season. To continue accessing water, users keep digging deeper as water output decreases. The borehole produces enough water in the rainy seasons, which fall in January, May, August and December. The output of Emeyan borehole, however, reduces for the remainder of the year,



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during which there is little or no rain. Piped water from Emeyan is distributed to households and is billed by LOWASCO through a metered system.

From an FGD conducted in Kalokol, it emerged that in the past there were several hand pumps in the area. These were the Akwee, Locheriang, Koomwa, Napeikopo, Lodungding, Lokirimo and Namura hand pumps; however, at the time of conducting this research, none of these hand pumps were operational partly because of poor maintenance by the WRUAs and the fact that some of the hand pumps along the River Nakiria had been swept away by floods.

The main challenge of access to water in Kalokol town is the control of access to water by cartels. These cartels have operated for years subjecting residents to significant frustrations and suffering (Kibor, December 2020). Furthermore, the shallow wells along the River Nakaria are controlled by the *nakana* who illegally connect pipes to the main line to feed their underground tanks, thus draining boreholes and depriving locals of water. To restrict access to water and monopolise sale of water, the *nakana* control access to shallow wells, as well as the digging of additional wells along this river

To address the water problem in Kalokol, the Turkana County Government installed two additional boreholes; boreholes (Kibor, 2020); however, these too have been taken over by the same water cartel that diverts water from it illegally to underground tanks for sale. The dominance of the cartels and the weakening of the WRUAs has further impeded access to water and heightened discontent among water users over poor service delivery and extortionate pricing of water. It was established that the *nakana* sell water for as much as KES100 (US\$0.87) per litre, which is exorbitant compared with LOWASCO's pricing of KES4 (US\$0.03) for a 20-litre jerrycan at the water kiosks.

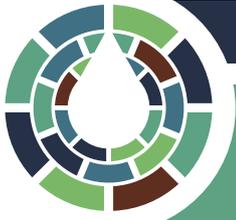
Although the water from Lake Turkana is too saline and is believed to affect bone formation in children, the residents of Kalokol still use the water because of limited alternative options and water scarcity. As part of its corporate social responsibility strategy, a company named Adili

Solar has been purifying water from the lake on a small scale and supplying it to Long'ech village and Long'ech Primary School. Due to the existence of a freshwater spring named Eliye further away from the lake, Kalokol residents believe that there is a high likelihood that fresh groundwater exists in the area around the springs.

Water-related conflict dynamics in Kalokol

This study established that there are different conflict dynamics in different parts of Kalokol ward. There are intra-community conflicts within Kalokol urban centre and there are conflicts around Lake Turkana. The parties to the conflicts vary from place to place depending on the sources and uses of water. These are discussed below.

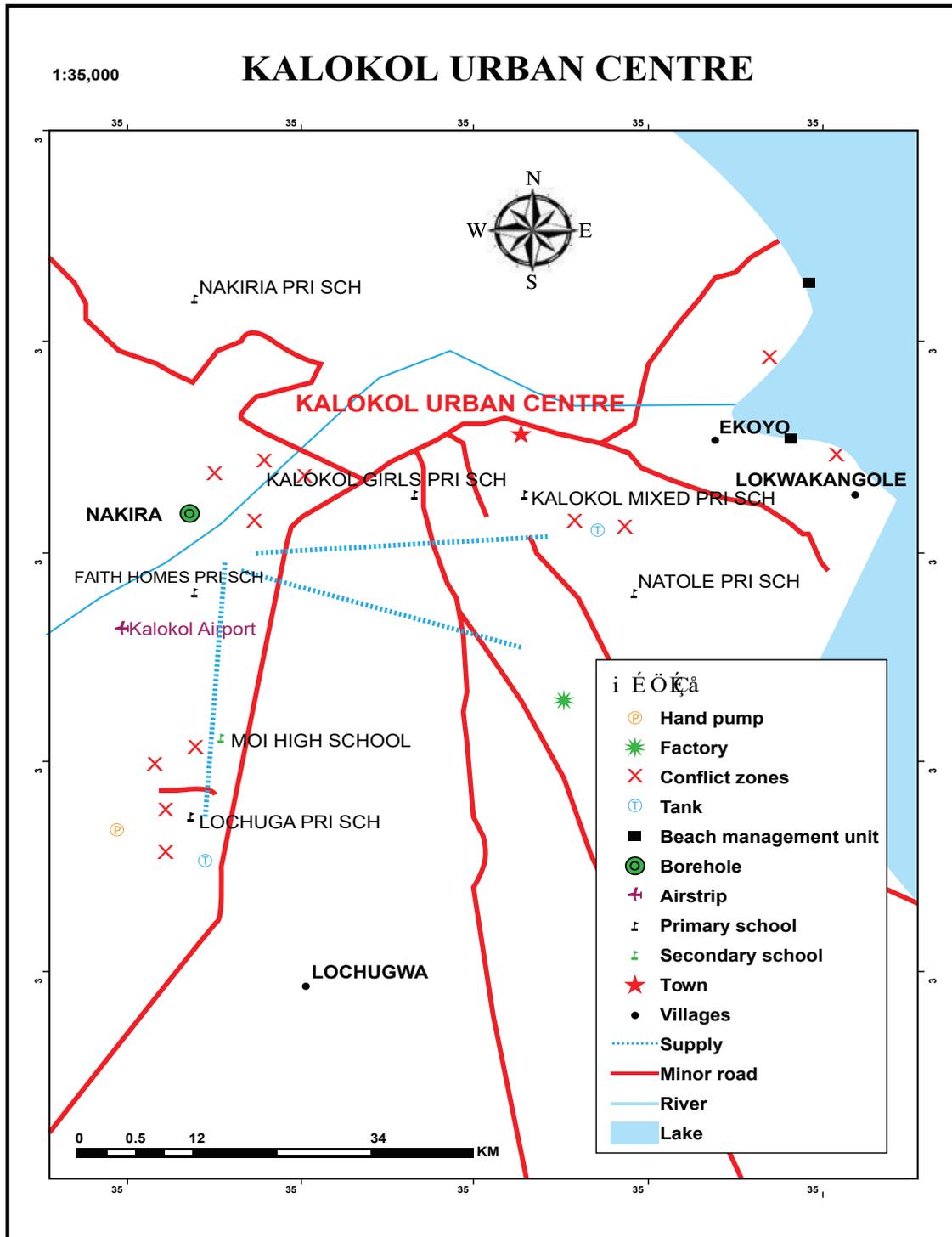
- a. **Conflicts related to competition for water in the urban centre:** Intra-community conflicts were found within Kalokol centre; these take the form of disagreements and aggression as people scramble for water in water kiosks. The map in figure 6 illustrates the findings of this study on the areas of Kalokol town affected by water-related conflicts, which are spread along water lines/pipes, rivers and areas with water pumps.
- b. **Conflicts between fishermen over fishing grounds:** This study found the shoreline bordering Kalokol to be a conflict hotspot, as illustrated in figure 7. below. The nature of conflicts in this area is related to access to fishing grounds by fishermen from Turkana and Ethiopia (Yongo et al, 2010) as well as territory-related disputes between beach management units (BMUs). A BMU is "an organisation of fishers, fish traders, boat owners, fish processors and other beach stakeholders who traditionally depend on fisheries activities for their livelihoods" (The Fisheries Management and Development Act 2016).

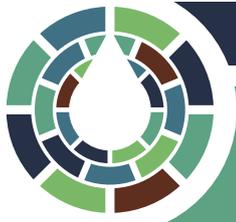


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Figure 6: Water points and conflict areas in Kalokol urban centre. (Source: KIIs, FGDs and conflict analysis)

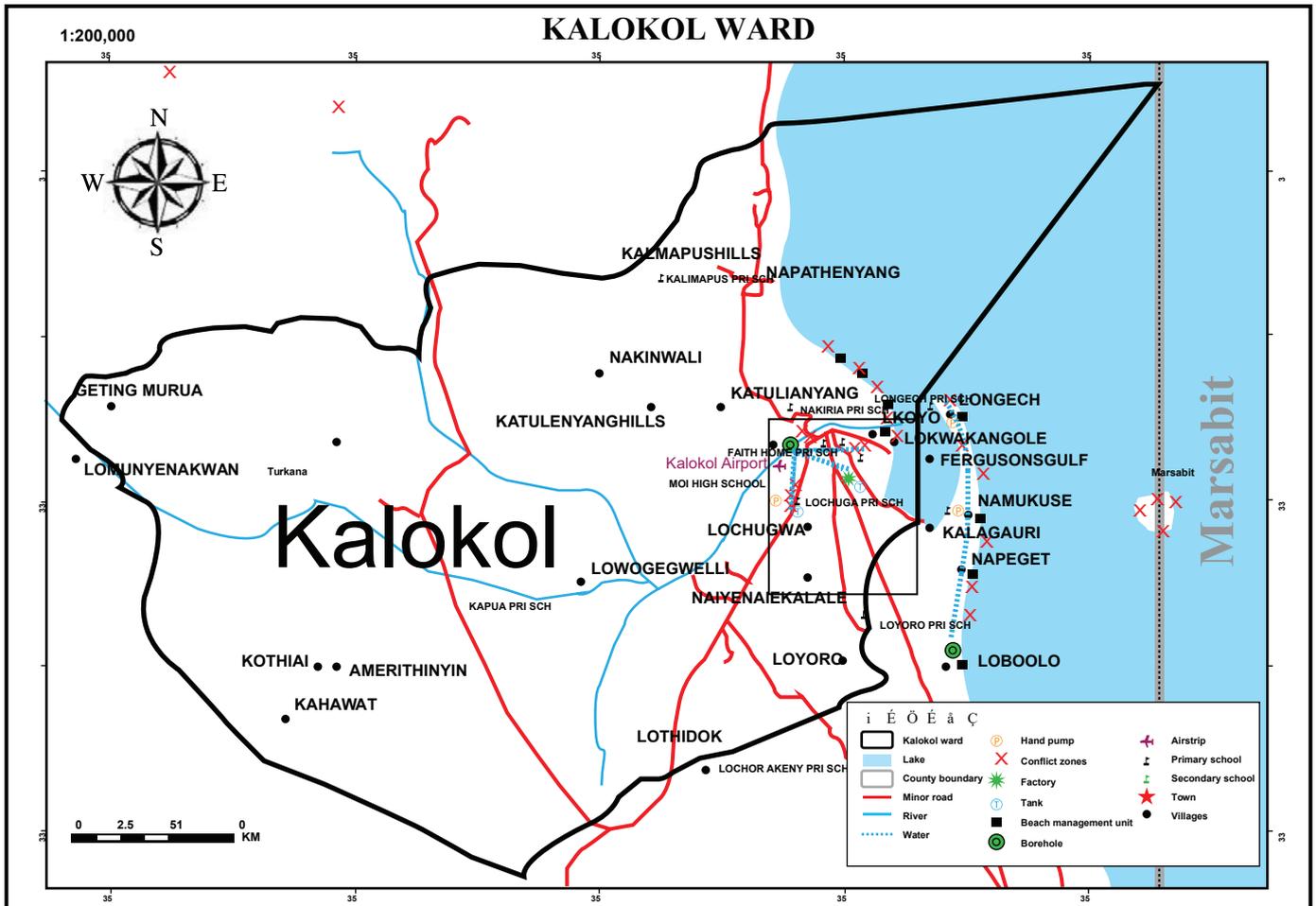




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Figure 7: Water points and conflict hotspots along the lake. (Source: KIIs, FGDs and conflict analysis)



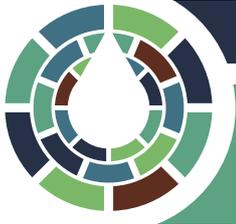
Kenya Gazette Supplement, 2016). BMUs are supposed to ensure sustainable utilization and management of the fishery resource.

BMUs were conceptualised as co-management institutions after the state-controlled fisheries management failed.

This study found that boundaries that mark areas of jurisdiction for BMUs in Lake Turkana are not permanent and/or clearly visible. As a result, as tides move, these boundaries are sometimes moved or swept away leading to ‘turf wars’ between BMUs over their territories. These take the

form of disagreements over which BMU should collect access fees for which part of the lake, leading to tensions.

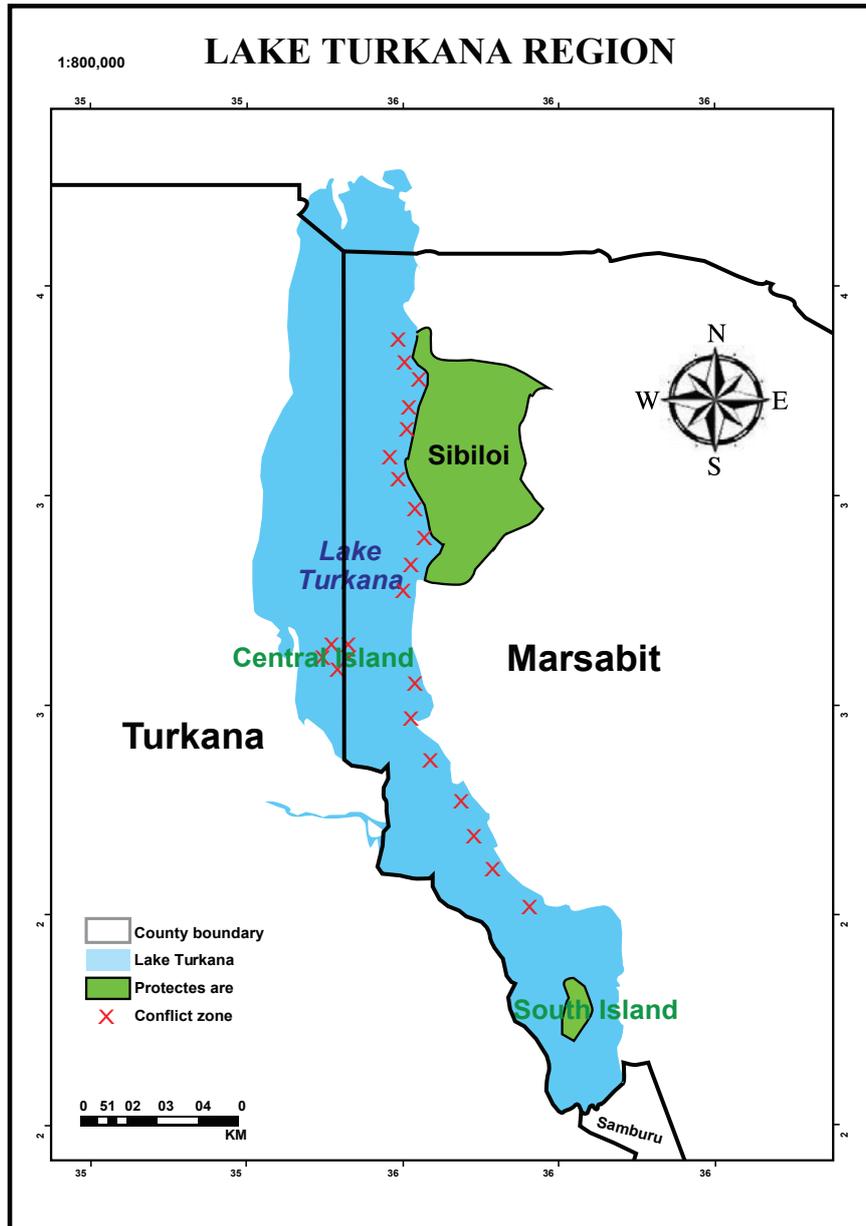
- c. **Conflicts between Kenya Wildlife Service (KWS) officers and fishermen:** There are two conflict hotspots within Lake Turkana: the area surrounding the Central Island National Park and the border between Turkana and Marsabit counties. These areas are mapped in figure 8. Fishing is prohibited within a radius of 6km from the Central Island National Park, which is managed and protected by



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Figure 8: Water points and conflict areas within Lake Turkana. (Source: KIIs, FGDs and conflict analysis)



the (KWS). This park is located on an island within Lake Turkana. Coincidentally, the protected area is also a breeding zone for fish and it therefore attracts lots of fishermen. Those fishing in this area come into conflict with KWS officers, who arrest them for encroaching on the protected area. In addition to this, conflicts between

fishermen from Turkana and Marsabit take place when the Turkana fishermen encroach on the part of the lake that is within the territory of Marsabit county and vice versa.



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Todonyang

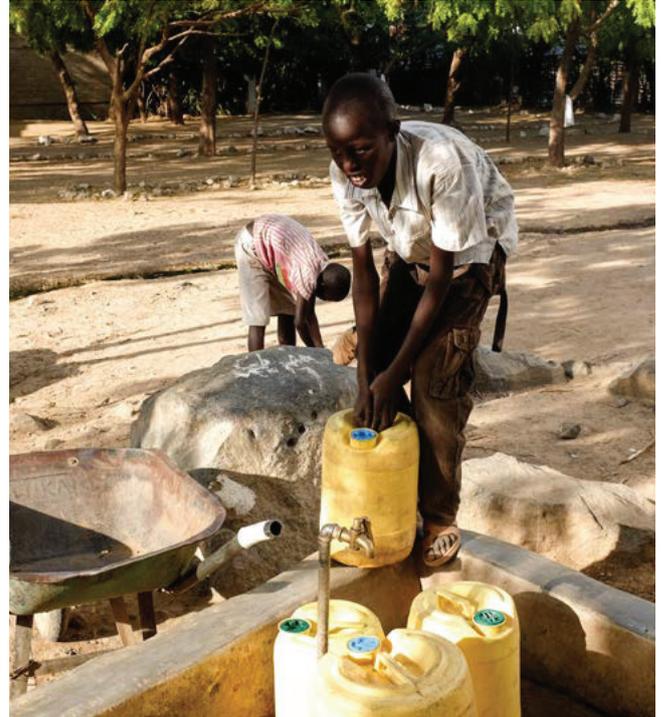
Todonyang lies on the border of Kenya and Ethiopia in the northeast part of Turkana county. The Turkana community living in this area has been in violent conflict with the Dassenach of Ethiopia (also referred to as the Merille) for years; this conflict can be traced back to 1950 (Mugabe, 2018). Although the original trigger for the conflict is unclear, resource competition has been seen as its underlying cause. Historically, the border along the nearby Omo River Delta was home to the Dassenach, but with time a good number of them have migrated into and settled in Kenya. From the FGDs conducted during this study, there were fears among the Turkana in Todonyang that the Dassenach would soon displace them as seemingly more and more Dassenach have been migrating into Todonyang.

Both the Dassenach and Turkana living in Todonyang are nomadic communities. The Dassenach are agro-pastoralists and live along the banks of the River Omo extending to Lake Turkana at the Kenya-Ethiopia border; the Turkana live along Lake Turkana and rear livestock as their main source of food and income.

As reflected in figure 9, the sources of water for the Turkana living in Todonyang are Lake Turkana, the Omo Delta, boreholes and swamps. Within Todonyang is a swamp called Lokinyang'a, located in an area called Olegech. This swamp only has water in the rainy seasons; during periods of drought, the Turkana move to Merikuka, a village settlement for the Dassenach, to access water. The Turkana also benefit from the River Omo when it overflows into a place called Koruro in Todonyang. While the Dassenach have good access to water, they have limited pasture, especially during times when the River Omo overflows and causes their limited pastureland to flood. At these times they cross over to Todonyang, which is rich in pasture to graze their animals.

Water-related conflict dynamics in Todonyang

The nature of conflict in Todonyang is mainly cross border and occurs along the border of



Children lifting a water container into a wheel barrow to take home (credit: Asyraf-Rasid, Shutterstock)

Kenya and Ethiopia. As previously noted, the Todonyang-Ethiopia border has been a conflict hotspot for decades, involving violent attacks between the Turkana living in Todonyang and the Dassenach, over access to pasture as well as water. Furthermore, conflicts among these communities have concerned livestock (livestock raids for cultural and livelihoods enhancing needs), and more recently fishing grounds and fishing equipment because the Dassenach have recently started fishing, according to the Turkana living in Todonyang. The Dassenach allegedly steal fishing gear from the Turkana. Violent attacks by one community are often followed by revenge attacks by the other, leading to a spiral of violence resulting in deaths and increased vulnerability for a people who live in a highly marginalised area.

Notably, this research found that, whereas violent conflict is endemic in Todonyang, there have been periods of cooperation between the Dassenach and the Turkana resulting from



Water-related conflicts in Turkana county

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Inter-communal conflicts between the Turkana and Dassenach in Todonyang

There have been persistent inter-communal conflicts between the Todonyang and Dassenach, which are characterised by violence. It is estimated that a total of 70,000 people along the Kenya-Ethiopia border have been affected by this conflict (Macharia, 2020).

The inter-tribal skirmishes and raids, which are the hallmark of these conflicts, intensified on 4 May 2011 when the infamous Todonyang massacre took place, leading to the death of 61 people. This massacre resulted from struggles between the Turkana and Dassenach over access to dwindling natural resources, namely pasture and water, growing population pressure, climate change and the proliferation of small arms among the two communities (Corcoran, 2016). It left a lasting scar on the psyche of the Turkana people in Todonyang, as was evident in the FGDs conducted in this study.

The Todonyang massacre led to massive losses in livestock, limited mobility of the Turkana and their livestock, severed inter-communal relationships and disrupted their livelihoods and economic development (Macharia, 2020).

interventions by not-for-profit organisations, the Catholic Church and peacebuilding officers. While the nature of conflict in Todonyang is mainly cross border and is therefore predicated on conflict over contested territory (land and fishing waters), violent conflict is compounded by other drivers of conflict, namely the cultural practices and high levels of marginalisation of the Turkana living in Todonyang. Historically, conflicts between both groups were driven by gender norms and cultural practices involving rites of passage whereby teenagers were tasked with killing members of the other tribe to prove their manhood, which unsurprisingly provoked revenge attacks from the other side (Corcoran, 2016).

The language barrier was found to be a big challenge to peacebuilding in Todonyang. This is because, the Dassenach speak neither Swahili nor Turkana, which are the two main languages spoken by the Turkana. As such, dialogue has been extremely difficult between these two communities.

Kibish

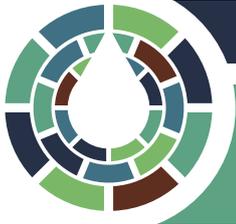
The sources of water in Kibish are boreholes, swamps and the River Nakuwa. The Toposa, an ethnic community living in South Sudan along the border with Kibish, claim that an area named Natapar, which is endowed with pasture

and water, is part of their territory; however, geographically Natapar falls within Kenya's borders.

Water-related conflicts in Kibish

Just like Todonyang, Kibish is a border area. It borders Ethiopia to the East and South Sudan to the West. It is important to note that Kibish is a conflict hotspot for several reasons. Firstly, Kibish is a contested area, which has over time been claimed by South Sudan, Ethiopia and Kenya. Secondly, this area has suffered recurrent cross-border conflict over access to water and pasture for many years. These conflicts flare up during times of drought when pastoralists on either side of the borders cross over with their livestock in search of water and pasture sparking violent confrontations. Thirdly, the Turkana living in Kibish are under immense threat of physical attacks from both the Toposa and Nyangatom. The Toposa and Nyangatom do not get into conflict with each other because they consider themselves to be 'cousins'; however, both communities are hostile towards the Turkana and encroach into Kibish, which leads to conflicts.

The Nyangatom, an ethnic community from Ethiopia, cross over to Natapar for pasture and water whereas the Turkana cross over to South Sudan with their livestock. The Dassenach of



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Ethiopia too move into Turkana to graze and water their animals and in the process end up coming into violent conflict with the Turkana as both communities scramble to access and use the same water points.

This research found that the area of Ethiopia that borders Kibish has plenty of water but very little pasture because it is occupied by large sugar irrigation schemes set up by the Government of Ethiopia. The Kuraz Sugar Development Project that has been set up in this area is the largest agricultural development scheme ever to be launched by the Ethiopian government (Omo-Turkana Research Network, 2016). Given that the topography of this area consists of vast plains, this part of Ethiopia experiences flooding during the rainy season making it difficult for pastoralists to graze. Lack of pasture is partly the reason why the Turkana do not move into Ethiopia during drought. This is compounded by the alleged hostility of the Nyangatom, which deters the Turkana from moving into Ethiopia to water their animals.

4.3 Emerging trends and factors

The Turkana County Climate Change Adaptation Action Plan 2019-2022 projects that crop and livestock activities across Turkana county will register low productivity mostly due to the environmental conditions such as droughts, floods, diseases and pests, which affect production and marketability of agricultural products. Due to inadequate and unreliable rainfall, environmental degradation, poor community water management practices, and increases in human and animal population, water for domestic and livestock use will be limited (Turkana County Government, 2019). This situation will put a strain on livelihoods, which may push the Turkana living in conflict hotspots such as Todonyang and Kibish to move further into contested areas in search of pasture and water, such as towards the River Omo. There is also a possibility that this state of affairs may cause more Turkana living in rural areas to migrate into urban centres in Turkana county, such as Lodwar, in search of alternative livelihoods. This might add pressure on the limited water resources.

Competition for water use in urban centres in Lodwar township and Kalokol is likely to increase with the growth of urbanisation. Furthermore, investments and large infrastructure projects in the county, as well as oil and gas exploration activities, are likely to increase pressure on water and heighten water-related conflicts.

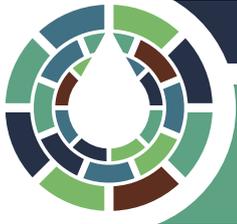
5. Stakeholder analysis

This section presents the analysis of information gathered from the stakeholder mapping process conducted in the four study areas. An open-ended guide was used to engage stakeholders and facilitate the brainstorming exercise. To start with, the participants listed down all the stakeholders in each of the study areas; they then proceeded to establish the stakeholders' interests and their level of power in water, peace and security in the study areas. To do so, the participants identified stakeholders:

- a. who had ability to shape/influence water, peace and security in the study areas; and
- b. who are affected by the outcome of water-related conflict.

The list was further analysed using Mendelow's stakeholder's matrix (power against interest grid), as shown in the Annex 1, which helped assess the level of interest and influence for the different stakeholders. The matrix was used to analyse the policy/decision-making and implementation impacting water management and conflict/peace dynamics.

The County Directorate of Peacebuilding does not have as much influence as it should and, according to respondents, has not had much impact on conflict resolution and peace. Local peace committees also appear very low in the grid (low influence, low power) owing to their inability to discharge their roles. The WPS partnership could provide technical support to the committees or work with other like-minded community-based organisations (CBOs) and faith-based organisations to do so.



Water-related conflicts in Turkana county

Analysis of stakeholder interests and concerns

Table 3: Stakeholders identified through the stakeholder mapping exercise

National government stakeholders	County-level stakeholders	Community-level stakeholders
Deputy County Commissioner (DCC), Assistant County Commissioner	Turkana County Government – Directorate of Water Services	Water Resource Users Association
National Drought Management Authority	Turkana County Government – Administration	Local peace committees
Water Resource Authority	Kenya Wildlife Service	Water vendors both licensed and cartels (<i>nakana</i>)
Lodwar Water and Resource Company (LOWASCO)	Turkana County Government – Directorate of Peacebuilding	BMUs
NGOs	Faith-based organisations – Catholic Church	Community elders
UN agencies	Community-based organisations	Community seers
National Government Security Teams	Politicians, members of parliament (MPs) and members of county assembly (MCAs)	Kraal elders
	County Fisheries Department	Youth warriors
	Turkana County Government – Ward Administrator	Natural resource committees
	Businesspeople and investors	Fresh Fish Association Fish Traders Business Group Fried and Smoked Fish Association

The BMUs have significant influence and a high level of interest; however, literature shows that they face management-related challenges that have resulted in decreasing fish production due to uncontrolled fishing, increased competition among fishermen and deficient statistics to support management objectives. Furthermore, from the data collected during this research, and as previously highlighted in this report, BMUs were found to be in conflict with each other over borders. Owing to their high interest and high power, BMUs are a critical actor to engage in peacebuilding efforts. Equally important are

water vendors, local peace committees, natural resource committees, WRUAs, KWS and the County Fisheries Department.

Water vendors and cartels have been mentioned frequently in this report, which demonstrates their high level of interest and power. WPS should support dialogue platforms to find solutions on addressing the cartel issues, which cannot be done effectively with only a top-down, heavy-handed security approach. They should be engaged and convinced to leave criminal activity with the support of the mandated institutions.



Water-related conflicts in Turkana county

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NGOs and CBOs in Kalokol have high interest in water, peace and security but their ability to intervene is low because of resource constraints. It would be strategic for WPS to collaborate with them to synergise efforts and leverage the goodwill that communities in Kalokol have with these organisations. Owing to the similarity of dynamics on water, peace and security in Kibish and Todonyang, the stakeholder mapping for the two areas was synthesised (see Annex 1 for more detail), as well as in the corresponding Mendelow's stakeholder's matrix.

The key stakeholders that the WPS partnership should engage on account of their high power and influence are the Assistant County Commissioner, County Directorate of Peacebuilding, local peace committees, county administration and national security officers. CBOs and NGOs implementing cross-border peace projects are also strategic actors for the WPS partnership to collaborate with given the experience that they have gathered over the years and the success that they have had in peacebuilding in that region. These organisations include the Agency for Cross Border Pastoralists (APAD), Sustainable Approaches for Community Empowerment (SAPCONE), Shalom Centre for Conflict Resolution and Reconciliation (SCRR) and Pact.

6. Conclusion and recommendations

Conclusion

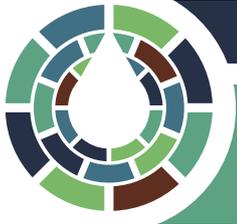
The study analysed several institutional frameworks such as the Water Resources Act 2016, the Turkana County Water Act 2019, the National Cohesion and Peacebuilding Bill 2021 and the Turkana County Peacebuilding and Conflict Management Bill 2011, among others. The frameworks have provided an opportunity to strengthen the mandate of different institutions in addressing water and conflict issues and support development agendas in the county. The frameworks do not, however, clearly show the interlinking relationship between water and peace, thus missing the opportunity to support the peacebuilding agenda through water management. Therefore, there is a need for collaboration between the various agencies with

mandates on water, peace and security to work on reforms and strengthen the sector, while recognising the gaps and opportunities. This will also enable interventions to become more coherent and provide an opportunity to reinforce each other's effectiveness.

It is evident that several factors such as population growth, changing climatic patterns and economic development have contributed to heightened water scarcity in Lodwar township, Todonyang, Kibish and Kalokol areas, and compounded the fragility of these areas. As a result, conflicts between the communities, both within the county and cross-border (both transnational and trans-county), over water and resources have escalated, whereas the capacity of the state and development institutions to deal with the worsening challenge of conflict and drought may not have improved in parallel.

Poor governance of water resources coupled with corruption and the proliferation of cartels to create and satisfy the demand for water have further escalated the water crisis in the research areas and have made communities more vulnerable to shocks. Furthermore, the inability of the government to expand and protect water infrastructures, as well as failure to manage and repair existing structures such as boreholes, have compounded the water scarcity problems. As these challenges persist, the burgeoning population and rapid economic growth continue to put even more pressure on a system that is already malfunctioning.

Because of patriarchal social norms that limit women's role in resource management decision-making processes, the needs of women and girls are not recognised and addressed and this has contributed to their increased vulnerability. Given the climatic conditions such as drought and control of water sources by elites/cartels, usually men, women and girls are forced to spend more time and effort to secure water and food for domestic use and are exposed to insecurity and violence. Furthermore, their ability to participate in decision-making processes is severely limited, both in private and public spheres.



Water-related conflicts in Turkana county

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It is also evident from this study that there are numerous stakeholders, public, private and not-for-profit, operating in the various areas studied. As illustrated in the tables and grids in the stakeholder analysis section of this paper, several of them were, however, considered by respondents to be poorly resourced or unwilling to discharge their mandates effectively on water governance and peace and security issues. These include local peace committees, LOWASCO, WRUAs, BMUs, County Directorate of Peacebuilding, NGOs and faith-based organisations. Therefore, more collaborative support and complimentary efforts are needed to make progress towards cooperation and effective management of water-related security issues in Turkana.

Recommendations

The following section contains recommendations to different stakeholders about reducing water-related conflict risk and promoting cooperation and collaboration to improve water management and service delivery. These recommendations, which are short, medium and long term in nature, are targeted at the WPS partnership, civil society organisations and NGOs, development partners and policymakers including the Turkana County Government. The recommendations also identify roles for civil society to play in supporting this agenda.

For WPS

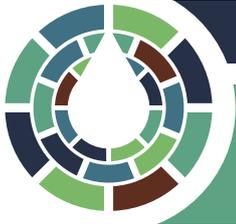
- In conflict-affected areas such as Todonyang and Kibish, support trust-building dialogue initiatives enabling communities to develop a shared understanding and collaborate to manage water resources, pasture and fishing resources and prevent violent conflict. This can be applied to conflicts between the Turkana and Marsabit fishermen as well as inter-clan conflicts.
- Support and promote inclusive and collaborative cross-sectoral multi-stakeholder engagement mechanisms, such as the County Steering Group, County Peace Forum, Turkana County Water Sector Coordination Committee

Forum and County Women Peace Caucus, among others, to embed gender and conflict sensitivity in the development and implementation of frameworks relating to water governance and peace.

- Strengthen water governance and peace-related structures and mechanisms at county and sub-county levels such as BMUs, WRUAs, county and sub-county level peace forums and committees, Country Peace Directorate and County Directorate of Water Services through capacity-building and technical advice on gender and conflict sensitivity and conflict resolution approaches. This will enable them to address conflict risks and act on their mandates for inclusive, accessible, and improved service delivery.
- Facilitate dialogues, networking, and capacities of local civil society organisations and community-based organisations to advocate for accountable, sustainable, effective and inclusive water-governance and conflict-management processes and structures.
- Invest in further research to build evidence and understanding on water governance and management issues such as hydro-meteorological systems, availability of water resources, impact of climate change on water resources and conflict dynamics, among others.

For Turkana County Government

- Operationalise and enforce in full the Turkana County Water Act 2019, Turkana County Water and Sewerage Services Sector Policy 2018, Turkana County Peacebuilding Bill 2021 and other related legislation and sensitise communities on the need to support the county government's efforts in enforcing the legislation and policies. Where the necessary water-related policies and regulations are lacking, fast track the development and



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implementation of such frameworks to strengthen the regulatory framework and improve service delivery. In doing so, ensure gender and conflict sensitivity is mainstreamed in the policies and practices.

- Create/improve monitoring and oversight mechanisms and necessary regulatory frameworks to improve accountability and transparency of water governance and service deliveries.
- Invest in building new or repairing/maintaining water infrastructures to provide safe and accessible water to the communities across the county. In doing so, ensure conflict sensitivity is strongly embedded in all infrastructure development plans and implementation processes.
- Invest in peacebuilding structures and capacities to address emerging conflict risks and, where appropriate, integrate alternative dispute resolution and traditional mechanisms drawing on locally accepted methods for resolving disputes within the Turkana community.
- Enhance the capacity of ward administrators to better coordinate and facilitate community participation in water resource and related governance issues. Furthermore, create awareness among communities of the impacts of vandalism of water infrastructure and work collaboratively with communities and law enforcers to report and prosecute water infrastructure vandals and root out the cartels.

For LOWASCO

- Create/improve monitoring and oversight mechanisms to improve accountability and transparency of water service delivery.
- Establish alternative sources of water supply, invest in infrastructural development and put in place measures to curb water loss, wastage and pilferage.

- Initiate dialogue with water users to obtain their views about possible solutions to the water crisis and ways of collaborating in the governance of water resources.

For civil society organisations and NGOs

- Strengthen community-based early warning early response structures such as nyumba kumi or district peace committees to identify in a timely manner the emerging conflict risks over shared resources and prevent violence through dialogue, mediation and other preventive measures.
- Support initiatives and interventions to enhance the transparency and the accountability of governance service delivery including water management and distribution.
- Invest in county-level collaboration and partnership to avoid duplication, unhealthy competition and enhance information exchange on water-governance and conflict-mitigation interventions.

For development partners

- Support long-term water, peacebuilding and livelihoods programmes through a systems approach, aimed at addressing structural issues related to water, peace and security, such as marginalisation and poor governance, that are likely to have high and lasting impact on peace.
- Promote and support integrated programming that has both peacebuilding and development outcomes such as access to water and improved livelihoods. This would ensure that the peacebuilding outcomes are intentional and embedded in the design and objectives of programmes.



Water-related conflicts in Turkana county

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Boys playing football on the shores of Lake Turkana, Kenya – (credit: Wafula Sam, Shutterstock)

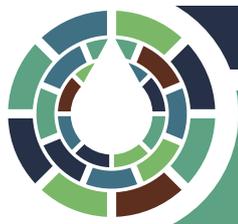


Annex 1: Stakeholder analysis

The stakeholder analysis data is presented here using tables and Mendelow’s stakeholder’s matrix (power against interest grid).

Lodwar township

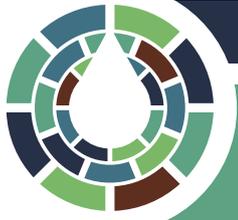
Stakeholders	Interest	Power	Reason for the rating
National government – Deputy County Commissioner (DCC), Assistant County Commissioner	Low (3)	High (9)	In Lodwar town, national government administration has few roles in water supply. It plays a role when there is intercommunal conflict on the outskirts of Lodwar town. It coordinates with other WPS actors in the provision of peace and security.
Turkana County Government – Directorate of Water Services	High (7)	High (6)	This office has a lot of power because of the substantial budget it holds for water services; however, according to respondents, it has been weak in implementing county plans and projects.
Turkana County Government – Administration	High (7)	Low (3)	Its function is well stipulated in the County Government Act 2012, but its presence is hardly felt at the local level.
Turkana County Government – Directorate of Peacebuilding	High (9)	High (7)	Legally, it has the mandate to facilitate reconciliation in conflict areas; however, it is not well resourced and has little impact on conflicts in the county.
National Drought Management Authority (NDMA)	High (8)	Low (4)	Its role is to coordinate drought responses. It has also implemented projects for communities affected by droughts, in addition to collecting information on drought early warning. Despite its contribution to drought responses, it depends on county and national government structures in planning and execution.



Water-related conflicts in Turkana county

Analysis of stakeholder interests and concerns

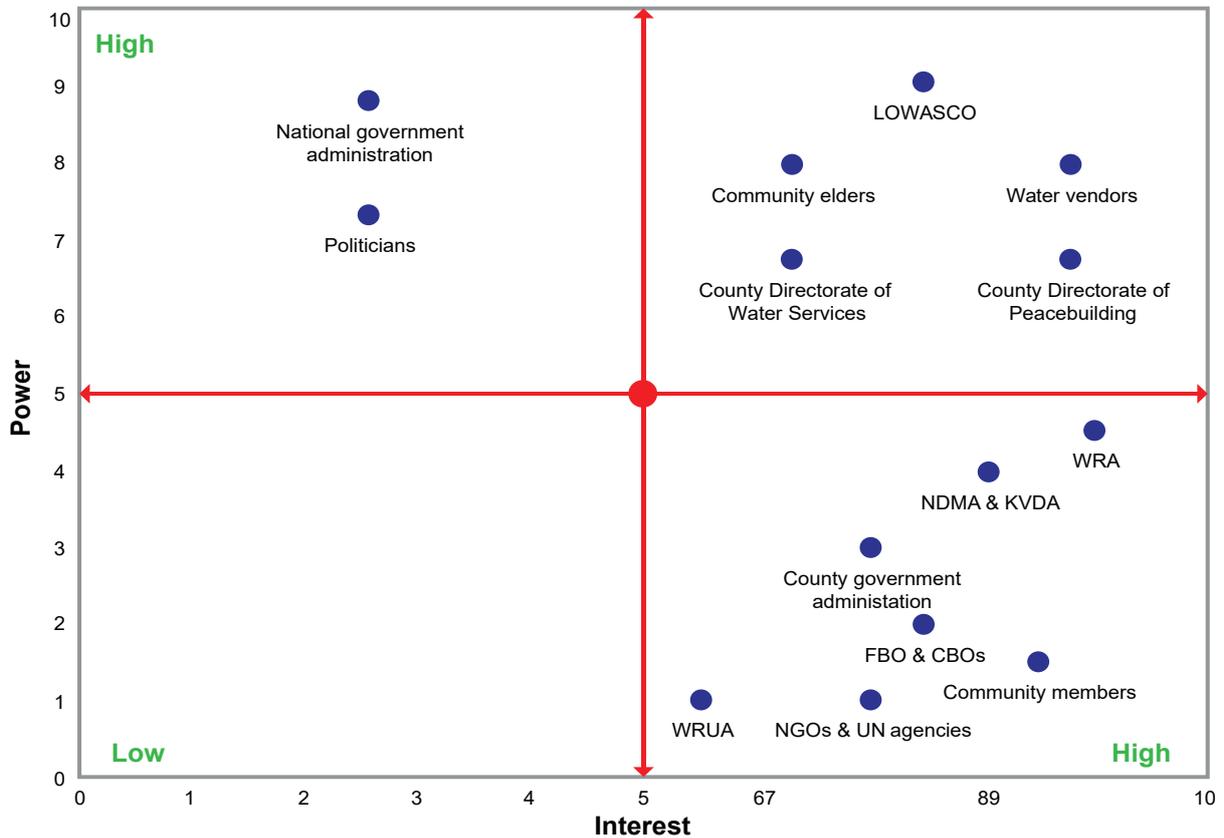
Stakeholders	Interest	Power	Reason for the rating
WRA	High (9)	Low (4)	It has the mandate of water resources management in Lodwar town, but its work is not visible due to technical capacity and scarce resources. There is also an element of corruption in the licensing of borehole construction.
LOWASCO	High (9)	High (9)	It plays an important role in water service delivery in Lodwar township.
NGOs and UN agencies	High (7)	Low (1)	These organisations have high influence, but are not considered by communities to be as effective as they should be in their programming given their inability to implement long-term projects that address systemic issues.
Faith-based organisations and community-based organisations	High (8)	High (2)	Although they have limited resources, they have projects at the grassroots level. They provide water services in remote areas and facilitate local peacebuilding initiatives to enhance peaceful coexistence. They have limited skills in conflict resolution and mediation.
WRUAs	High (6)	Low (1)	They have an important mandate in water resources management and conflict resolution, but have low influence due to their limited capacity to discharge their mandate and their over-concentration on the sale of water at the expense of their overall mandate as set out by law.
Community elders	High (6)	High (8)	They have high influence in the community and are important in decision-making at the community level.
Politicians – MCAs and MPs	Low (3)	High (8)	They have high influence, but are held in low regard by communities because of their inability to make good their promises to the electorate and their alleged involvement in corrupt practices and water grabbing.
Water vendors (both licensed vendors and cartels)	High (8)	High (7)	They buy water from LOWASCO and sell to places where there is no water, e.g. construction sites or areas that suffer from water shortages. They get water directly from aquifers, which shows they have influence in relation to the water supply in town.
Local peace committees	Low (3)	Low (3)	They can potentially have high influence but are ineffective in discharging their roles.



Water-related conflicts in Turkana county

Analysis of stakeholder interests and concerns

Lodwar township stakeholders map



Kalokol

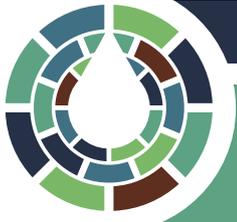
Stakeholders	Interest	Power	Reason for the rating
Beach management units (BMU) – Network	High (9)	High (9)	BMUs are a key player in the fishing industry in Lake Turkana. They manage the lake through a co-management arrangement between the government and stakeholders.
WRUAs	High (7)	High (7)	WRUAs are involved in the management of water supply from Emeyan borehole to communities living in Kalokol. They also determine water prices at the water points in the community.
Community members	High (8)	Low (2)	They are interested in accessing water for consumption and fishing. They have no influence on the county government to provide water despite the perennial challenge of water in Kalokol.



Water-related conflicts in Turkana county

Analysis of stakeholder interests and concerns

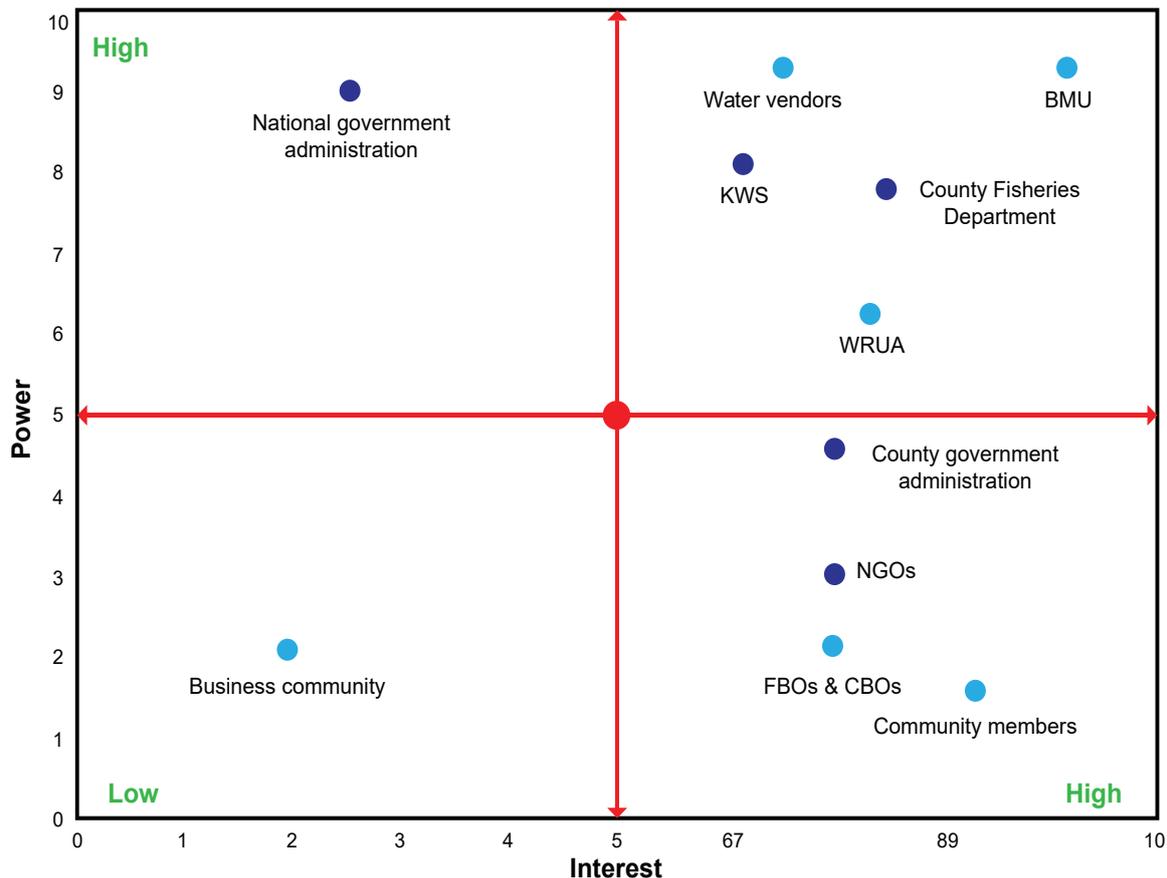
Stakeholders	Interest	Power	Reason for the rating
Water vendors	High (7)	High (9)	They sell water to the business community and residents of Kalokol for a fee. They have so much influence that they even hinder or influence water investments and dominate water supply in the area.
Business people/ investors	Low (2)	Low (2)	They do not concern themselves much with water issues beyond their business interests.
Faith-based organisations and community-based organisations	High (7)	Low (2)	They are interested in providing safe water and supporting the fishing industry, but they have limited resources.
NGOs	High (7)	Low (3)	They provide support to BMUs to conduct fishing activities effectively. Due to the county's restrictions on direct engagement with BMUs, they do not have much power. They rely on county authorities to involve BMUs.
National government – Assistant County Commissioner	Low (2)	High (9)	They provide security and coordination of national government at Kalokol ward level.
County Department of Fisheries	High (8)	High (8)	They ensure fish quality at the lake through training of BMU members and fishermen/women. The department also mediates conflict among the BMUs.
Kenya Wildlife Service	High (6)	High (8)	They protect the park and fish breeding sites . They are always in conflict with fishermen/women at the central island.
Turkana County Government – Ward Administrator	High (7)	Low (4)	They are involved in the management and administration of county projects, but they are not visible in the implementation of the county projects.



Water-related conflicts in Turkana county

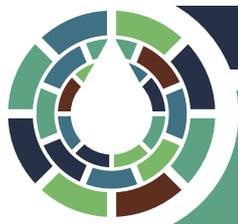
Analysis of stakeholder interests and concerns

Kalokol stakeholders map



Todonyang and Kibish

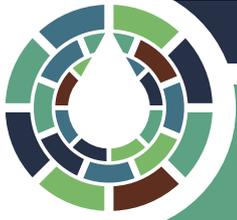
Stakeholders	Interest	Power	Reason for the rating
BMUs – Network	High (9)	Low (2)	They manage the beaches and maintain peace among fishermen. They coordinate with police and the fisheries department on operational standards and procedures in the lake. Turkana North BMUs are weak due to endemic conflict with Dassenach.
WRUAs	High (7)	Low (4)	In charge of managing boreholes and providing water to community members when available.
Kraal elders	High (8)	Low (4)	Management of pastoralists’ villages, resolving conflicts and directing grazing of livestock by herders. They have no capacity to mitigate large-scale communal conflict.
Business community	High (6)	Low (3)	They engage in cross-border business with Ethiopian communities, which gets disrupted when conflict erupts, but they have no power to influence peace and conflict dynamics.



Water-related conflicts in Turkana county

Analysis of stakeholder interests and concerns

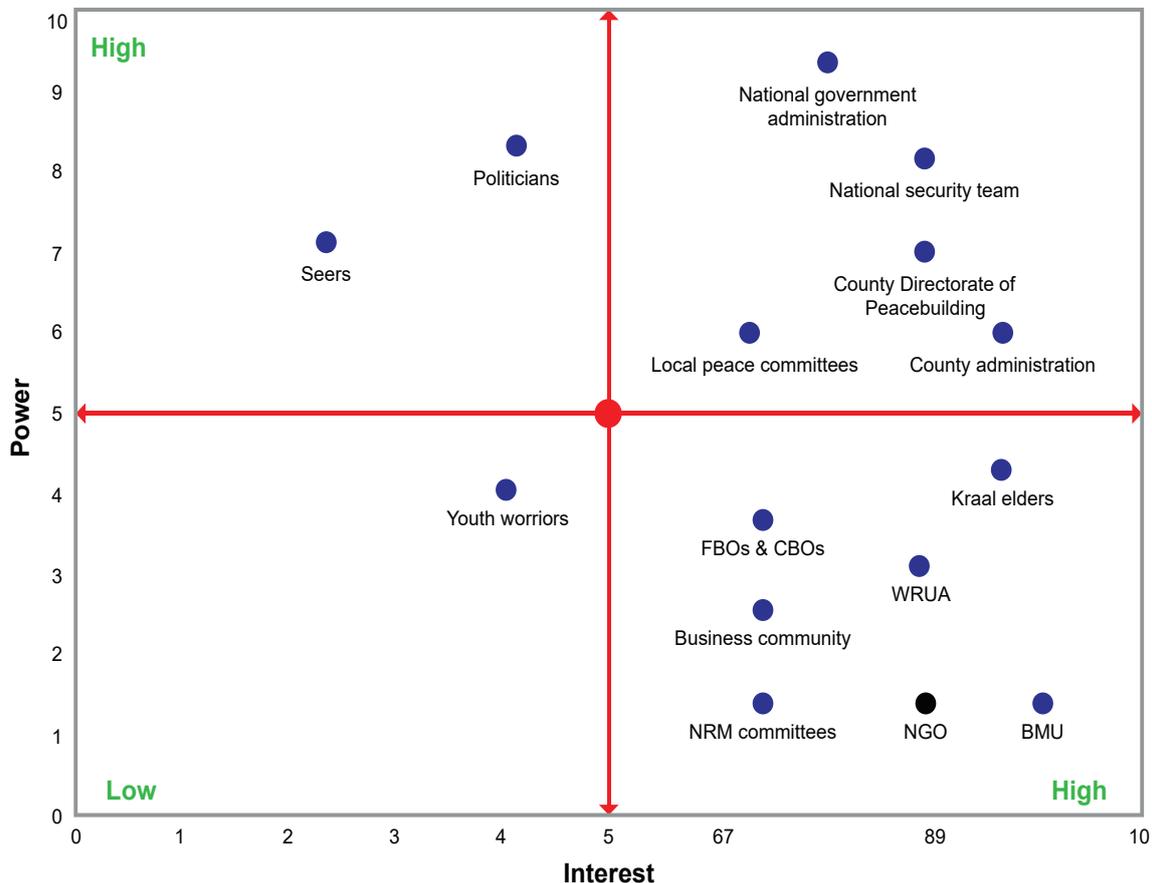
Stakeholders	Interest	Power	Reason for the rating
Faith-based organisations and community-based organisations	High (6)	Low (4)	They support cross-border peacebuilding and are involved in the formation of local peace committees, but they depend on NGOs/donors for funding.
Seers	Low (3)	High (7)	They engage on fortune/foretelling on various societal issues, e.g. diseases and misfortunes and protecting the community from bad omen. They also bless warriors going on raids and amass a large share of the animals raided in return.
Youth warriors	Low (4)	Low (4)	They protect the community but have low interest in peaceful coexistence.
Local peace committee	High (6)	High (6)	They are trusted leaders in addressing conflict issues in the community whenever there is conflict.
Natural resource management committees	High (6)	Low (2)	They foster equitable sharing of water resources between Turkana, Nyangatom and Dassenach. Their work is limited to natural resources management (not other conflict drivers).
Community members	High (8)	Low (1)	They are most affected by the cross-border conflict due to water scarcity but have little power to influence peacebuilding.
NGOs	High (7)	Low (2)	They facilitate peace and support livelihoods, development and food security projects. They also support cross-border peace meetings. Their work is somewhat constrained because they need support and approval to work on peace in the conflict belt along the border.
National government – Assistant County Commissioner	High (7)	High (9)	They provide security and are also involved in cross-border peace meetings. Since peace and security are national government functions, the Assistant County Commissioner has a lot of influence on what happens along the border.
Politicians	Low (4)	High (8)	They have a lot of influence on the electorate, but they are not involved in community activities in most cases.
Government security teams	High (8)	High (9)	They respond to conflict incidents along the borders of Ethiopia and Kenya. In some cases, they regulate access to water to ensure peace and security. They have been engaging their Ethiopian counterpart on security.
County government administration	High (9)	High (6)	They conduct implementation of county projects and activities, especially sinking boreholes in places where there is no water.
County Directorate of Peacebuilding	High (8)	High (8)	They have deployed peacebuilding officers to conduct peace activities funded by the county government. Their interventions have brought some relative calmness along the border.



Water-related conflicts in Turkana county

Analysis of stakeholder interests and concerns

Turkana North stakeholders map



Annex 2: FGD guide

A: Water-related conflict dynamics in Turkana county

Step 1: Water resources mapping

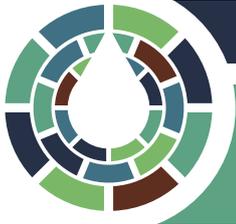
Ask the participants to draw a water resources map of the target areas. It will be done on flip chart or on the ground as follows:

- Participants will be asked to form two small groups by gender or occupation.
- The participants draw a community map (sketch) indicating the water sources for all uses and indicate where conflicts occur or have occurred.
- All the participants will be encouraged to participate.

- Small groups will be given 15 minutes.
- One member will be asked to present.

THEN, the facilitator is to ask the following questions:

1. What are the sources of water, access and uses in the target areas? Probe on:
 - a. How is the availability of water throughout the year?
 - b. How is access regulated (informally or formally)? Who regulates access to different sources of water and for different uses by different community groups (women, men, youth, elders, herders, vendors etc)?



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- c. Which water sources experience which conflicts? To what extent and where (hotspots)?
2. What factors cause or contribute to water-related conflict in the target areas? Probe on:
 - Causes of conflicts over time
3. Who are the actors involved in the conflicts and why? Probe on:
 - Different actors and how they influence conflict in the target areas. (*Seek information on the position and how they influence conflict.*)
- b. Large-scale investments – their direct effect on conflict dynamics. Are they done in a conflict-sensitive manner?
- c. Interconnections between water-related conflicts and other forms of conflicts in Turkana county (e.g. inter-county communal conflict, political tensions etc.).
6. What are the coping strategies for people influenced by changes in water resources and water-related conflict dynamics?

Step 2: Historical trends and patterns of the conflicts

Ask the participants to draw a historical timeline for water-related conflicts. It will be done as follows:

- *Through a plenary session, the facilitator and participants will agree on the timeline.*
- *Participants will be asked to name the conflict events, when it happened and locate it along the timeline.*

THEN, the facilitator will proceed to ask the following questions based on historical timeline:

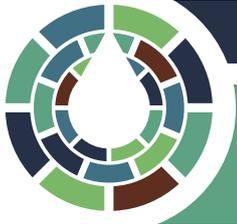
4. What are historical patterns of the conflicts? Probe on:
 - a. Direct and indirect linkage with water resources
 - b. Are there emerging trends on causes, issues or tensions that impact on water resources and conflict?
5. How do external factors influence water-related conflicts? Probe on:
 - a. Effects of climate change and how they have affected conflict dynamics in the target areas. (*Identify local climate change adaptation initiatives in the target areas.*)

B: Stakeholders and institutional analysis

7. Which are the different stakeholders involved in water, peace and security in Turkana?
 - a. Quickly run through what they are doing in the target areas. Probe the participants' perceptions on the interests/motivation of different stakeholders.
 - b. Establish if and how they work together (joint local structures, loose network or plan and develop joint actions).

C: Cross-cutting aspects

8. What values, perceptions, attitudes and beliefs influence water resources development, peace and conflicts?
9. Who are most vulnerable to water-related conflicts and water resources dynamics?
10. How are women and youth involved in water resources management?



Water-related conflicts in Turkana county

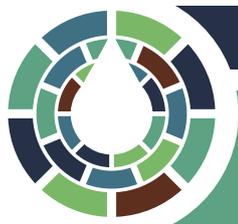
Analysis of stakeholder interests and concerns

Annex 3: KII guide

1. From your point of view, how would you describe the current water resources and conflict situation in Turkana county?
 - a. What are the issues that are fuelling these conflicts from your point of view? (*Drivers of conflicts emphasised; probed further to understand the contexts.*)
 - b. Who are affected by the conflict? (*Women, youth, herders, business people, children?*)
 - c. Which policies have been developed on water resources, peacebuilding and other related sectors? Probe on current ongoing policy and legislative processes at national, regional block and county levels.
2. Which activities are national and county government institutions undertaking? (In which target areas? Who is involved?) Probe on: How effective are these activities in water resource development, peace and security?
3. What challenges have they faced in discharging their mandates? What are the solutions to these challenges?
4. Which are the points of convergence, conflicts, or competition of interventions for different stakeholders?
5. What values, perceptions, attitudes and beliefs influence water resources development, peace and conflicts?
6. How are women and youth involved in water resources management?
7. What are the coping strategies of the community in different scenarios (climate change, development in an area, political instability and infrastructure development)?

Annex 4: KII respondents

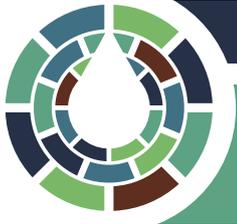
S/N	Institution/organisation	Designation	Gender
Kalokol			
1	Kenya Wildlife Service (Lake Turkana post-Kalokol)	Base commander	Male
2	Hotel owner (community)	Businessman	Male
3	Water Resources Users Associations (WRUA)	Plant operator	Male
4	Turkana County Government – Fisheries Department	County Fisheries Officer	Male
5	Beach management unit (BMU)	Chairperson	Male
6	Water Resources Users Association (WRUA)	Chairperson	Male
Kalokol			
1	Japan International Cooperation Agency (JICA)	Team leader	Male
2	Turkana County Government (Ministry of Water)	Deputy Director Water Services	Male
3	National Drought Management Authority (NDMA)	Officer in charge of data	Male



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S/N	Institution/organisation	Designation	Gender
4	Internally displaced persons (IDP) – Lodwar town	Women representative	Female
5	Community representative – Lodwar	Youth leader and student	Male
6	LOWASCO – Water officer seconded by county government	Kanamkemer cluster monitor	Male
7	National Environmental Management Authority (NEMA)	County Director for Environment	Female
8	Kenya National Chamber of Commerce and Industry (KNCCI)	Chief Executive Officer	Male
9	Water Resources Users Association (WRUAs) – Kerio Delta community	Member	Female
10	Civil Society Organisations Forum	President	Male
11	Community leader	Liaison officer	Male
12	Religious leader	Women church leader	Female
Todonyang			
1	National government	Chief – Todonyang	Male
2	National government	Assistant County Commission	Male
3	Water Resources Users Associations (WRUAs)	Secretary	Male
4	Peace committee	Chairperson	Male
5	Peace committee (cross border) – Todonyang community	Chairperson	Male
6	Businessperson	Fish vendor	Female
7	National resource management committee	Committee member	Male
8	National government – Security	National Police Reservisti	Female
9	Community leader	Dassenanch Leader	Male
Kibish			
1	National government	Assistant County Commissioner	Male
2	National government – Security	AP commander	Male
3	National government – Security	Officer Commanding Station (OCS)	Male



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S/N	Institution/organisation	Designation	Gender
4	Community leader	Turkana Elder	Male
5	Water Resources Users Associations (WRUAs)	Chairperson	Male
6	National government - Kibish	National Police Reservist	Male
7	Peace committee	Member of peace committee	Male
8	Turkana county government	Village administrator - Kibish	Male
9	Peace committee	Peace member	Male
10	Community leader	Village elder	Male
11	Turkana County Government	Director of Peacebuilding	Male

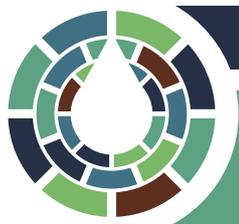
Annex 5: Summary of KIIs and FGDs

KII participants

Study areas	Male	Female	Gender
Kalokol	6	0	6
Lodwar	8	4	12
Todonyang	7	2	9
Kibish	11	0	11
Total			38

FGD participants

Study areas	Male	Female	Gender
Kalokol	8	2	10
Lodwar	12	4	16
Todonyang	7	3	10
Kibish	6	4	10
Total			46



Water-related conflicts in Turkana county

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Annex 5: Summary of KIIs and FGDs

S/N	Participant name	Category	Designation	Gender	Study site
1	Alimlim Ebei Dapal	Business community	Business group leader	Male	Kibish
2	Dickson Lowoi	NGO (TUPADO)	Peace officer	Male	Lodwar
3	Abdi Achegei	County government	Peacebuilding officer	Male	Kibish
4	Andrew Ekarani	Local NGO (TUPADO - Turkana North)	Community mobiliser	Male	Lodwar
5	Francis Ekiru Eyangan	Community leader	Kraal/Peace committee leader	Male	Turkana North
6	Eliud Emeri	Local CSOs (TUBEI)	President of CSO Turkana county	Male	Lodwar
7	Joshua Eregae	County government	Peacebuilding officer	Male	Turkana North
8	David Akol Lotiyan	CBO - Friends of Lake Turkana	Project officer	Male	Kalokol /Lodwar/ Turkana North
9	Philip Etabo Eyanae	BMU	BMU manager and member	Male	Kalokol
10	David Akol Lotiyan	CBO - Friends of Lake Turkana	Project officer	Male	Kalokol /Lodwar/ Turkana North
11	Nancy Ngikito	Women representative	Women leader	Female	Lodwar

Annex 7: Participants of stakeholders mapping workshop

S/N	Name of Participant	Category	Location	Gender	Institution
1	David Juma	National government	Lodwar	Male	DCC - Turkana Central
2	Kennedy Omondi	County government	Lodwar	Male	T. Central water office
3	Josphat Lotwel	NDMA	Lodwar	Male	Assistant DCPR
4	Joseph Nganga	Community	Lodwar	Male	Diocese of Lodwar
5	Sylvia Amana	Community	Lodwar	Female	WRUAs
6	Julius Elain	Community	Lodwar	Male	WRUAs
7	Abubakar Rukia	NGO	Lodwar	Female	Red Cross of Kenya
8	Stephen Ekuwom	Community	Kalokol	Male	BMU network



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S/N	Name of Participant	Category	Location	Gender	Institution
9	Peter Lotieng	Community	Kalokol	Male	Senior Chief Namukuse
10	Lilian Ekai	Community	Kalokol	Female	WRUAs
11	Micah Korobe	Community	Turkana North	Male	WRUAs
12	Lorot Kwalang	Community	Turkana North	Male	Peace committee
13	Miriam Atabo Lomodo	Community	Turkana North	Female	BMU network
14	Rebecca Elim	Community	Kibish	Female	Peace committee
15	Eunice Elim	Community	Kibish	Female	WRUAs
16	Patrick Ekiru	CSO	Kibish	Male	Local CBO



References

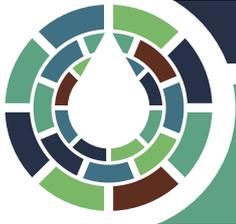
- Akall, G. (2021). Effects of development interventions on pastoral livelihoods in Turkana county, Kenya. *Pastoralism Journal*, 11(23). <https://pastoralismjournal.springeropen.com/articles/10.1186/s13570-021-00197-2>
- Akpor, O.B., et al. (2014). Remediation of polluted wastewater effluents: Hydrocarbon removal. *Trends in Applied Sciences Research*, 9(4). 160-173. <https://scialert.net/abstract/?doi=tasr.2014.160.173>
- Avery S. (2013). What future for Lake Turkana? The impact of hydropower and irrigation development on the world's largest desert lake. <https://assets.survivalinternational.org/documents/1375/whatfuturelaketurkana-update.pdf>
- Bright Hope. (2019). Turkana drought fact sheet, Spring 2019. <https://www.brighthope.org/wp-content/uploads/2019/04/Drought-Fact-Sheet-v2.pdf>
- Catley, A, et al. (2021). Introducing pathways to resilience in the Karamoja Cluster.
- Commission on Revenue Allocation (CRA). (2012). Survey report on marginalised areas/counties in Kenya. CRA Working Paper No. 2012/03. <https://www.devolutionhub.or.ke/file/baba07911c2d298f01703d2ac33d7099.pdf>
- Corcoran, B. (2016, July 30). In Kenya, scarcity and drought are driving two tribes to go to war. *Irish Times*. <https://www.irishtimes.com/news/world/africa/in-kenya-scarcity-and-drought-are-driving-two-tribes-to-go-to-war-1.2739297>
- Department of Fisheries, Turkana County Government. (2022, June 15, accessed). <https://www.turkana.go.ke/index.php/ministryof-pastoral-economies-fisheries/department-of-fisheries/>
- Devine, P. (2016). Persistent conflict between the Pokot and the Turkana: Causes and policy implications [Unpublished PhD thesis]. University of Nairobi. <http://erepository.uonbi.ac.ke/handle/11295/97476>
- Etyang, H. (2021, April 13). Power disconnection plunges Lodwar into water shortage. *The Star*. <https://www.the-star.co.ke/counties/rift-valley/2021-04-13-power-disconnection-plunges-lodwar-into-water-shortage/>
- Frontier Counties Development Council (FCDC), (2022). Peacebuilding and Conflict Management Policy.
- Gachenga, E. (2019). Kenya's Water Act 2016: Real devolution or simply the 'same script, different cast'. *Law | Environment | Africa*, 38 [https://www.semanticscholar.org/paper/Chapter-20%3A-Kenya%E2%80%99s-Water-Act-\(2016\)%3A-real-or-the-Gachenga/7662c6ce9b637e6f2ddbc361ab62c52de1dd58b4](https://www.semanticscholar.org/paper/Chapter-20%3A-Kenya%E2%80%99s-Water-Act-(2016)%3A-real-or-the-Gachenga/7662c6ce9b637e6f2ddbc361ab62c52de1dd58b4)
- Government of Kenya. (2016). The Fisheries Management and Development Act 2016. Kenya Gazette Supplement. http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/FisheriesManagementandDevelopmentAct_No35of2016.pdf
- Government of Kenya. (2016). Water Act 2016. <https://wasreb.go.ke/downloads/Water%20Act%202016.pdf>
- Government of Kenya. (2021). National Cohesion and Peacebuilding Bill 2021. *Kenya Gazette Supplement*. <http://www.parliament.go.ke/sites/default/files/2021-06/19-%20NATIONAL%20COHESION%20AND%20PEACE.pdf>
- Gumba, D., & Turi, G. (2019). Cross-border arms trafficking inflames northern Kenya's conflict. Institute for Security Studies. <https://issafrica.org/iss-today/cross-border-arms-trafficking-inflames-northern-kenyas-conflict>
- Hirpa, F. (2018, October 26). Coping with water scarcity in the Turkwel river basin, Kenya. *Reach Water*. <https://reachwater.org.uk/coping-with-water-scarcity-in-the-turkwel-river-basin-kenya/>



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Analysis of stakeholder interests and concerns

- Human Rights Watch. (2015). There is no time left: Climate change, environmental threats, and human rights in Turkana county, Kenya. https://www.hrw.org/sites/default/files/report_pdf/kenya1015_web.pdf
- IGAD. (2022). IGAD Cluster 1 (Karamoja Cluster). <https://resilience.igad.int/clusters/igad-cluster-1-karamoja-cluster/>
- Kamau, M. (2019, April 16). Fight for water by oil firms may fuel conflict in Turkana. *Financial Standard*.
- Kenya Law. (2017). Petition No. 280 of 2017. <http://kenyalaw.org/caselaw/cases/view/215331/>
- Kenya National Bureau of Statistics. (2019). Turkana County Government 2018-2019.
- Kenya News Agency. (2020, May 16). Eleven killed by floods in Turkana County. <https://nation.africa/kenya/counties/turkana/Floods-kill-11-people-in-Turkana/1183330-5554728-11fmjwg/index.html>
- Kenya News Agency. (2021, April 13). Turkana residents to wait longer for water reconnection. <https://www.kenyanews.go.ke/turkana-residents-to-wait-longer-for-water-reconnection/> Accessed in January 2022
- Kenya News Agency. (2021, May 18). Turkana residents count losses as their sheep, goats swept by floods. <https://www.kenyanews.go.ke/turkana-residents-count-losses-as-their-sheep-goats-swept-by-floods/>
- Kermut, M.S. (2016). The silent war: Pokot and Turkana [MA thesis]. University of Oregon. https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/20550/Muntet_oregon_0171N_11643.pdf?sequence=1
- Keter, S. (2019). AMPATHPlus hits the ground running in Turkana County. Ampath. <https://www.ampathkenya.org/news-blogfeed/2019/11/30/ampathplus-hits-the-ground-running-in-turkana-county>
- Kibor, F. (2020, December 6). How water cartels are subjecting residents of Kalokol to torture. *The Standard*. <https://www.standardmedia.co.ke/north-eastern/article/2001396420/residents-agony-as-water-cartels-divert-commodity>
- Lebasha, L., & Wegler, X. (2021). Markets and localization: Empowering Turkana fisherfolk in Kenya, Humanitarian Practice Network, <https://odihpn.org/publication/markets-and-localisation-empowering-turkana-fisherfolk-in-kenya/>
- Liambila, D. (2015). Assessing the roles of Water Resources Users Associations in line with the principles of integrated river basin management: Case study of the Kuywa Water Resources Users Association. *International Journal of Science and Research*, 6(6). <https://www.ijsr.net/archive/v6i6/ART20173821.pdf>
- Macharia, A. (2020). Diminishing role of traditional mechanisms in the management of pastoralist conflict. Briefing Paper No. 2: An Analysis of Turkana Dassenach Conflict. <https://shalomconflictcenter.org/briefing-paper-no-2-an-analysis-of-turkana-dassenachconflict/>
- Mbugua, J. (2015). Women, natural resources management and peacebuilding in Turkana county. Occasional Paper Series, 6(1). International Peace Support Training Centre. <https://www.ipstc.org/index.php/downloads-publications/publications/category/49-2015?download=156:occasional-paper-6-1-2015>
- Ministry of Agriculture, Livestock, Fisheries and Co-operatives (MoALFC). (2021). Kenya county climate risk profile: Turkana County. Kenya county climate risk profile series. <https://cgspace.cgiar.org/handle/10568/115064>
- Ministry of Environment and Forestry. (2018). National Climate Change Action Plan 2018-2022. http://www.environment.go.ke/wp-content/uploads/2020/03/NCCAP_2018-2022_ExecutiveSummary-Compressed-1.pdf
- Ministry of Water, Environment and Mineral Resources. (2019). Climate Change Adaptation Action Plan (CCAAP) 2019-2022. Technical Working Paper. <https://www.turkana.go.ke/wp-content/uploads/2022/02/Turkana-County-CCAAP-2019-2024-1.pdf>



Water-related conflicts in Turkana county

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Mugabe, M. (2018, October 9). Deep focus on Turkana-Merille conflict. Omprakash. <https://www.omprakash.org/blog/deep-focus-on-turkana-conflict>

Mugendi, D, et al. (2019). Assessment of land use/land cover changes linked to oil exploration developments under changing climatic conditions in Lokichar Basin Turkana county, Kenya. *TeMA – Journal of Land Use, Mobility and Environment*. https://www.researchgate.net/publication/346579110_Assesment_of_land_useland_cover_changes_linked_to_oil_exploration_developments_under_Changing_Climatic_conditions_in_Lokichar_Basin_Turkana_County_Kenya

National Steering Committee on Peacebuilding and Conflict Management (NSC). (2022, February, accessed). Partners. <https://www.nscpeace.go.ke/partners>

Oduor, A, et al. (2012). Food security master plan for Turkana county. Catholic Diocese of Lodwar. https://www.researchgate.net/publication/288965722_Food_Security_Master_Plan_for_Turkana_County

Office of the President. (2011). National Policy on Peacebuilding and Conflict Management 2011. <https://www.refworld.org/pdfid/5a7ad25f4.pdf>

Okolla, D. (2021, August 27). Guns, oil and water in Turkana county: What do the stars portend? *The Elephant*. / <https://www.theelephant.info/features/2021/08/27/guns-oil-and-water-in-turkana-county-what-do-the-stars-portend/>

Omo-Turkana Research Network. (2016). The Kuraz Sugar Development Project. Briefing Note 1. https://www.canr.msu.edu/oturn/OTuRN_Briefing_Note_1.pdf

Oxfam. (n.d.). Market-driven value chain for the livestock sector. Turkana county report. https://cng-cdn.oxfam.org/kenya.oxfam.org/s3fs-public/file_attachments/Market-driven%20value%20chain%20for%20the%20livestock%20sector,%20Turkana%20County-Published.pdf

Paulson, E. (2021). Climate change, Lake Turkana and inter-communal conflicts in the Ilelmi triangle region: A critical analysis. Briefing Paper 11. <https://shalomconflictcenter.org/briefing-paper-no-11/>

Roy, D., & Puzyreva, M. (2018). Adaptive and inclusive watershed management: Assessing policy and institutional support in Kenya. International Institute for Sustainable Development. <https://www.iisd.org/publications/report/adaptive-and-inclusive-watershedmanagement-assessing-policy-and-0>

Schilling, J, et al. (2011). On arms and adaptation: Climate change and pastoral conflict in northern Kenya. *Climate Change and Security Working Paper CLISEC-15*. University of Hamburg Research Group.

Schilling, J, et al. (2016). For better or worse: Major developments affecting resource and conflict dynamics in northwest Kenya. <https://www.degruyter.com/document/doi/10.1515/zfw-2016-0001/html?lang=en>

Turkana County Government. (2017). Turkana County Water, Sanitation Services Sector Strategic Plan, 2017-2021. <https://devolutionhub.or.ke/resource/turkana-county-water-sanitation-services-sector-strategic-plan-2017-2021>

Turkana County Government. (2018). County Integrated Development Plan 2018-2022 (CIDP II).

Turkana County Government. (2018). Turkana Water and Sewerage Services Sector Policy, 2018. https://repository.kippira.or.ke/bitstream/handle/123456789/2079/Turkana-County-Water-and-Sewarage-Services-Sector- Policy-2016-Final_23022018.pdf?sequence=1&isAllowed=y

Turkana County Government. (2019). Climate Change Adaptation Action Plan. Technical Working Paper, 2019-2022. <https://www.turkana.go.ke/wp-content/uploads/2022/02/Turkana-County-CCAAP-2019-2024-1.pdf>. Accessed in January 2022



Water-related conflicts in Turkana county

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Turkana County Government. (2019). Turkana County Water Act 2019. *Kenya Law Gazette*. <http://kenyalaw.org/kl/fileadmin/pdfdownloads/Acts/TurkanaCountyWaterAct2019.PDF>

Turkana County Government. (2021). Turkana County Peacebuilding and Conflict Management Bill 2021.

UNDP. (2022, March, accessed). Goal 6: Clean water and sanitation. <https://www.undp.org/sustainable-development-goals#cleanwater-and-sanitation>.

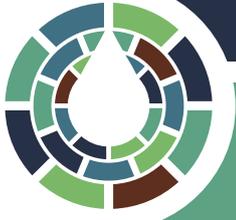
Wanguba, B. (2018). GIS-based multi-criteria decision analysis of urban piped water demand: A case of Lodwar town, Turkana county, Kenya. University of Nairobi. http://erepository.uonbi.ac.ke/bitstream/handle/11295/153078/Wanguba_Gis-%20Based%20Multicriteria%20decision%20analysis%20of%20Urban%20piped%20Water%20Demand%20%20a%20case%20study%20of%20Lodwar%20town%20Turkana%20County%2c%20Kenya.pdf?sequence=1&isAllowed=y

WRA, (2022, March, accessed). About WRA. <https://wra.go.ke/about/regional-offices/>

Yongo, E, et al, (2010). Emerging resource use conflicts between Kenyan fishermen, pastoralists and tribesmen of Lake Turkana. *Aquatic Ecosystem Health and Management*, 13(1), 28-34. https://www.researchgate.net/publication/244888294_Emerging_resource_use_conflicts_between_Kenyan_fishermen_pastoralists_and_tribesmen_of_Lake_Turkana

Water, Peace and Security (WPS) partnership

The Water, Peace and Security (WPS) partnership helps stakeholders to identify and understand water-related security risks and undertake timely, informed and inclusive action for conflict prevention and mitigation. The WPS partnership is funded by The Netherlands Ministry of Foreign Affairs. The views and opinions expressed in this report do not necessarily reflect the opinions or policies of our donor.



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