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Closing the environment- migration gap in climate policy and programmes in Kenya

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Cover image of a migrating family from the rangelands to the delta. Taken by Hussein Abdullahi Mahmud in July 2022.

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Contents

Acknowledgments	1
1 Introduction	2
2 Key findings	3
3 Methodology	4
4 Limitations	6
5 Tana River County and its livelihood systems	7
6 Findings	9
7 Conclusion and policy implications	34
References	36

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1 Introduction

This paper explores mobility and migration in the context of strategies of adaptation to dynamic environmental changes in Tana River County of coastal Kenya. The study has three objectives.

First, it critically considers the extent to which migration represents a strategy for adapting to environmental change and ecological degradation. For example, for whom and under what circumstances does moving serve as a positive adaptation and open up new opportunities? For whom does it represent distress-related migration or forced displacement? And how do those who do not and cannot move at all manage, given the environmental pressures they face? In this context, the research aims to put forward an alternative, more nuanced approach to understanding the movements of pastoralist communities in Tana River County, Kenya.

Second, the study explores the political, economic and academic interests behind the narratives shaping climate policy and programmes. It asks why some perspectives on migration and the environment have gained prominence over others and the reason for their importance. What underlying interests or agendas might be driving these narratives? Do they emerge from particular geographies, institutions or organisations? Under what circumstances does a shift in the narrative occur and to what extent do local perspectives and experiences inform the direction of these narratives? These questions are important as they tell us which people, places or organisations are driving the terms of the debate in climate policy, programmes and research.

Third, the research considers the impact that these findings have for the development of climate-related policy and programmes in Tana River County. What lessons can be learned and how should migration better be included and (re)framed in the context of environmental change?

2 Key findings

Tana River County is diverse in terms of ethnicities, ecological zones, livelihood systems and vulnerability to climate-related disasters. The main livelihood systems in the county are pastoralism, agro-pastoralism and mixed farming. Prolonged droughts affect pastoralist and agro-pastoral communities more than the sedentary farming communities, while floods affect the latter more than the former. Key informants have all indicated noticeable changes in climatic conditions in their area, with negative effects on their livelihood.

Long-distance mobility, involving mobility between the wet-season and dry-season grazing lands found along the river and in the delta, is an important coping mechanism. Mobility can protect pastoralists' herds from decimation in the case of droughts, a subject discussed extensively in the focus group discussions (FGDs) for this study.

The Orma pastoralists and Pokomo farmers have lived together for generations without many conflicts occurring between them. Exceptions include violent clashes in 2001–02 and 2012–13; both instances led to several human and livestock deaths. These conflicts were related to competition and a dispute over natural resources between the two groups. More recently, a new wave of migrants coming from northeastern Kenya and others moving from Somalia into the delta are causing concern for the local residents (both Orma and Pokomo), as well as for the county government.¹

The county has prepared two policy documents to regulate mobility within it. These are the Tana River County Disaster Risk Management Policy, 2020 and Tana River County Grazing Control Act, 2017. These policy documents are key in regulating mobility in the county, but their operationalisation is still in progress.

Links between extreme environmental events and human mobility have not yet been fully recognised and taken into account in policy development. As will be discussed below, efforts to frame the links should continue to promote the design of strategies to reduce the risk of permanent displacement of 'trapped populations'.

¹ Official documents, both at the national and county levels, use the terms 'migration' and 'mobility' interchangeably. In most cases, both terms refer to short-distance travel and seasonal movements of pastoral communities for access to water and pasture.

3 Methodology

The study utilised different methods of data collection, as well as both primary and secondary data. Published materials and reports were instrumental in building the background to the report. Primary data were collected through key informant interviews (KIIs) and FGDs. The research team visited various communities, and governmental and nongovernmental organisations, in Tana River County from 20 July to 3 August 2022. The headquarters of the organisations visited were located in Hola town and also in the Tana Delta region. A total of 19 KIIs were conducted with 14 men and five women, and 12 FGDs were held. The 12 FGDs consisted of 105 men and 55 women, making a total of 179 respondents (Table 1). While the KIIs were conducted with governmental and nongovernmental organisations, FGDs were held among communities, some of whom were located in remote pastoral villages, while others lived very close to the Tana River. The groups interviewed were mainly pastoral, but they included farming communities as well. Other groups were minorities belonging to hunter-gatherer communities who are now living in peri-urban environments and engaged in menial jobs, as well as communities from other counties who have migrated to Tana River County to burn and sell charcoal. We used the snowball sampling method to identify communities for FGDs based on their contributions and relevance to the study of migration, mobility and environmental change. The number of participants in each discussion group varied enormously. Some would start with about 10 members and eventually increase to 20 or more. There were female community members in all our FGDs and in most villages their numbers varied from five to ten in each group.

Table 1: The total number and breakdown of participants

	Men	Women	Total participants
Focus group discussions	105	55	160
Key informant interviews	14	5	19
TOTAL	119	60	179

The KIIs were done with the Deputy County Commissioner of Tana River County, and individuals from the National Drought Management Authority (NDMA), the Department of Cohesion and Special Programs in the Office of the Governor, the Directorate of Environment and Climate Change, the Department of Livestock Production, the Department of Agriculture, World Vision, the Kenya Red Cross Society, Welthungerhilfe, the Tana River Peace, Reconciliation and Development Organization, the International Committee for the Development of Peoples (CISP), and Nature Kenya.

FGDs were held with communities in different localities, including the villages of Chewani, Wayu, Waata Omara, Dide Waride, Odole, Kipao, Ramada, Golbanti, Asa, Jitrova and Mitapani. In Jitrova village, we had a small FGD with a community that had migrated to Tana River

County to burn charcoal and sell it on the roadside. These communities had come from Kilifi County, located to the south of Tana River County. Focus groups were also constituted to represent different livelihood systems. FGDs were always quite lively; in addition to the invited participants, sometimes an entire village would come to listen and participate in our discussions, as happened in Wayu village.

Several KIIs were conducted in Hola town, and several villages were visited for FGDs, as listed in Table 2.

Table 2: Villages visited for focus group discussions

Village	Description and location
Asa	Pastoral village in the interior rangelands
Wayu	Pastoral village in the interior rangelands
Dide Waride	Pastoral village in the delta
Odole	Pastoral village in the delta
Ramada	Pastoral village in the delta displaced by floods
Kipao	Pastoralist family from Oddo Ganda village in the interior, settled for grazing near Kipao village in the delta
Chewani	Farming community outside the delta
Golbanti	Farming community in the delta
Mitapani	Farming community in the delta
Waata Omara	Former hunting and gathering community displaced by anti-hunting laws
Jitrova	Charcoal-burning immigrant community in the delta
Garsen Livestock Market	Weekly market held on Saturdays

Questions around drought and migration garnered the interest of pastoral communities, as most of those located in the interior rangelands are experiencing the effects of prolonged droughts, including the severe drought of 2021–22. The community members present in these discussions were chiefs of the area (current and past), elders holding different community responsibilities, women and youth groups. In KIIs, governmental, nongovernmental and humanitarian organisations shared with us their areas of work related to droughts, floods and conflict and how these issues were related to displacement in the county.

All interviews were conducted in English. All discussions among the Orma were conducted in the Orma and Kiswahili languages; those with the Pokomo were conducted in Kiswahili.

4 Limitations

Tana River is a politically volatile county, having in the past experienced serious conflict, displacement of communities, destruction of crops, and the killing of people and stealing of livestock. The most disastrous conflict in the county occurred in 2012, pitting the Orma pastoralist community against the Pokomo farming community. The fieldwork for this report was conducted during Kenya's election year. There were heightened political activities and tensions across the country, and Tana River County was no exception. We could not avoid coming across campaign teams nor avoid meeting them in the villages where we went to conduct interviews. On a few occasions we were mistaken for a campaign team, and we had to make it quite clear that we had nothing to do with the ongoing political campaigns. We dealt with this challenge by including questions about the political environment in the study: we queried the impact of the elections and other day-to-day political activities on migration and displacement of communities in the county.

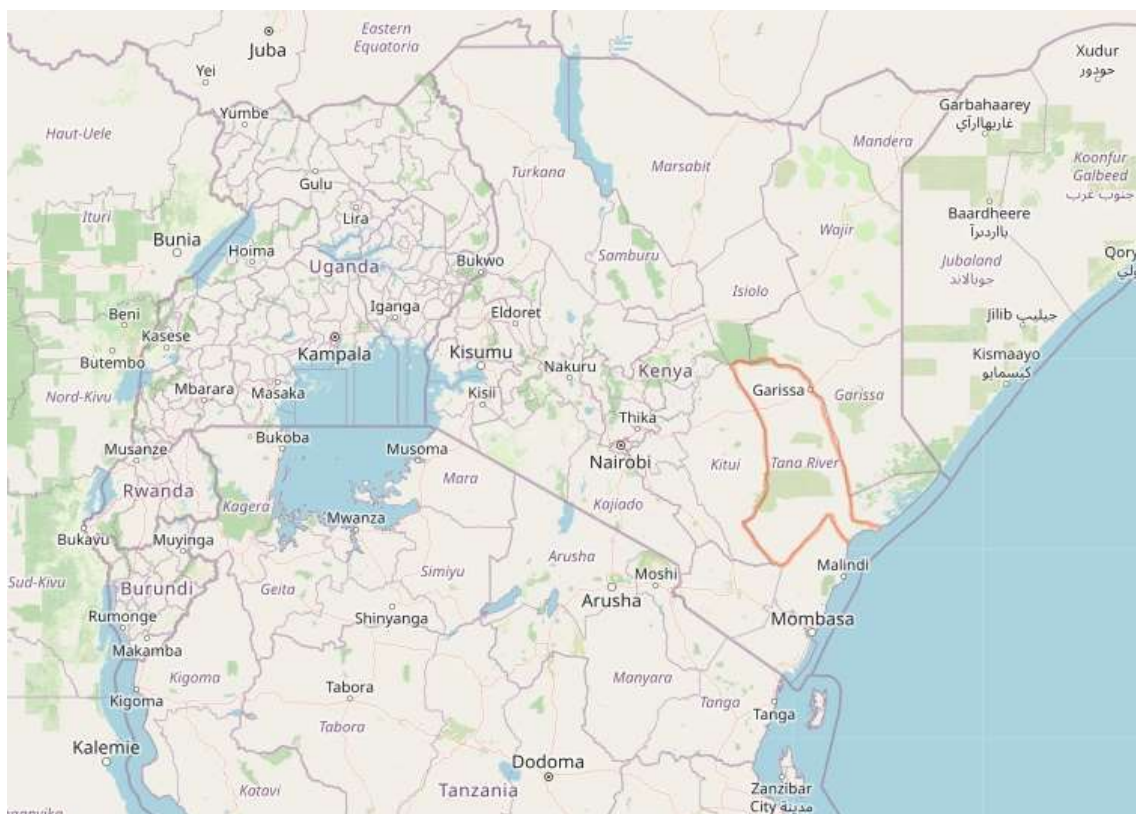
Another tension that we had to contend with was the threat of youth radicalisation and violent extremism in the county. The county borders Garissa, Kilifi and Lamu counties, where heightened violent activity is often reported. Related to this are the frequent police and army checkpoints whose personnel patrol the expansive delta and adjacent counties, including the Boni Forest, where security threats are always a reality. Our fieldwork thus had to be flexible and ready to adapt to the changing security situation on the ground.

The fact that the study was conducted during a major regional drought was a third kind of challenge. The drought context presented both advantages and disadvantages for research. One advantage was that we observed pastoral communities in the middle of moving from one place to another, as we came across several communities moving into the delta. This provided an opportunity to address the effects and coping strategies being used to avert the risks associated with droughts. On the other hand, a disadvantage was the raising of expectations of communities, who tended to mistake research teams for humanitarian assistance providers. Community members would present a long list of desired interventions to the research teams at the end of the interviews, which we had no ability to respond to.

5 Tana River County and its livelihood systems

Tana River County is bordered by Garissa County to the northeast, Isiolo County to the north, Kilifi County to the south, Kitui County to the west, and Lamu County to the southeast. According to the Kenya National Bureau of Statistics, the county has a population of 315,943,² and covers an approximate area of 37,950.4 km² making it one of the most sparsely populated counties in the country, with a population density of just eight persons per km². The county has about 76 km of coastline along the Indian Ocean. It has only two urban centres, namely Hola and Madogo towns. Settlements are concentrated along the river all the way from the north to the delta, and scattered across the rangeland in the northern and western parts of the county.

Figure 1: The location of Tana River County



Source: OpenStreetMap

The county is home to different ethnic groups, who live in distinct ecological zones that provide them with various livelihood resources. While the Pokomo are farmers and live mainly

² This population figure is taken from the 2019 Kenya Population and Housing Census, p 7.

along the Tana River and in the Tana River Delta, the Orma and Wardey pastoralists live in the vast rangelands located in the north and west of the county, as well as in the delta. The Munyuyaya and Wailwana are minority communities who practise farming along the river bank. Finally, the Waata are a hunting and gathering community who now live mostly on the fringes of towns doing menial jobs, or live alongside the main roads burning and selling charcoal.³ Other groups include the Bajuni, Somali and Mijikenda from neighbouring counties, and a host of other groups from across the country.

Table 3 shows the county's three sub-counties – Tana North, Tana River and Tana Delta – their populations, land area coverage and population density. As can be seen from the table, the Tana Delta sub-county is the largest in terms of population, with 116,757 people. It is also the most productive part of the county, where communities live in close proximity to the river and their livelihood sources.

Table 3: Sub-counties and other administrative units of Tana River County

Sub-county	Population	Land area (km ²)	Population density
Tana North	110,640	15,478.7	7
Tana Delta	116,757	13,306.1	9
Tana River	88,546	9,165.6	10
Total	315,943	37,950.4	8

Source: Kenya Population and Housing Census, 2019.

The most important and striking feature of the county is the Tana River, the longest in the country. Its catchment covers around 100,000 km² and can be divided into the headwaters in the Aberdare Ranges in central Kenya and the lower Tana, consisting of the section downstream of Kora, where the river flows for some 700 km through semi-arid plains before entering the Indian Ocean at Kipini. Tana River County lies along the western bank of the river. The land slopes gently southeastwards, with an altitude ranging between 20 and 200 metres above sea level. In addition, there are several seasonal rivers in the county, locally referred to as *laga*, which are tributaries of the Tana River. The main river and its tributaries provide fundamental livelihood support for the farming and pastoral communities in the county. The main river supports farming throughout the year and pastoralism during the dry season.⁴ The tributaries originating from Kitui County to the west are an important source of water for pastoral communities in the vast rangelands during the wet season.

³ <https://blogs.soas.ac.uk/ref-hornresearch/2022/08/03/closing-the-environment-migration-in-climate-policy-and-programmes/>. Accessed: 20 August 2022.

⁴ <https://www.tanariver.go.ke/about-us-2/>. Accessed: 24 July 2022.

6 Findings

6.1 Perceptions of climate change

Many climate change questions were raised in our KIIs and FGDs. Floods are both a menace and a blessing in disguise for farming communities, who rely on them to be able to grow crops on the river banks as the floodwaters recede, as well as for watering their fields. Too much flooding, however, can destroy their crops. Farmers reported that the floods they rely on for rain-fed and river-bank agriculture have been less frequent and the river levels have been falling. They attributed this to more frequent droughts. Pastoral communities also reported that there had been frequent droughts in recent years, leading to prolonged migration, both in terms of duration and distance. Both groups acknowledged that the changes in climatic conditions in their areas had significantly affected their livelihood systems (Tana River County, 2020).

While farmers and pastoralists are affected differently by droughts and floods, these phenomena are also responsible for pitting these communities against each other, as each explores ways to cope with the hazard and ultimately both compete over the scarce resources remaining.

According to a key informant in the county office in Hola:

Droughts in Tana River County affect the following sub-counties mostly – Tana North, Tana River, Galleddyetu and Bangale sub-counties. People migrate due to drought, which affects all species of livestock in the county. The Tana Delta sub-county is the best in terms of resources and least affected by drought. It is located next to the ocean and receives fairly good amounts of rainfall compared with other parts of the county. Livestock move to the delta during dry seasons and move en masse and from other counties during severe droughts, for example, the one of 2021–2022. Tana North is the most affected by drought then followed by Tana River sub-county. The western part of the county is vast, mostly arid, has no permanent rivers and receives little rainfall and [is] therefore vulnerable to droughts. Water pans dry during the dry seasons.⁵

According to Mary Lulutiya of NDMA, the Tana River County flood hotspots affect the marginal mixed households (referring to a livelihood zone composed of poor people who rely on a mix of pastoral and agricultural production), especially along the riverine areas. She stated that floods displaced people in the delta in 2017 and in Hola in 2020 and they had to move to higher ground, where they were assisted by humanitarian organisations, the county and

⁵ Interview with Ms Anne Gwiyo, Programme Officer for Special Programmes in the Governor's Office, Hola, 21 July 2022.

central governments. Farming communities are also often displaced by floods, but tend not to migrate long distances from the river. After the flood waters recede they go back to their homes and farms.⁶

The following sections discuss the dominant livelihood zones in the county, followed by a discussion on the effects of climate change and environmental degradation upon community livelihoods.

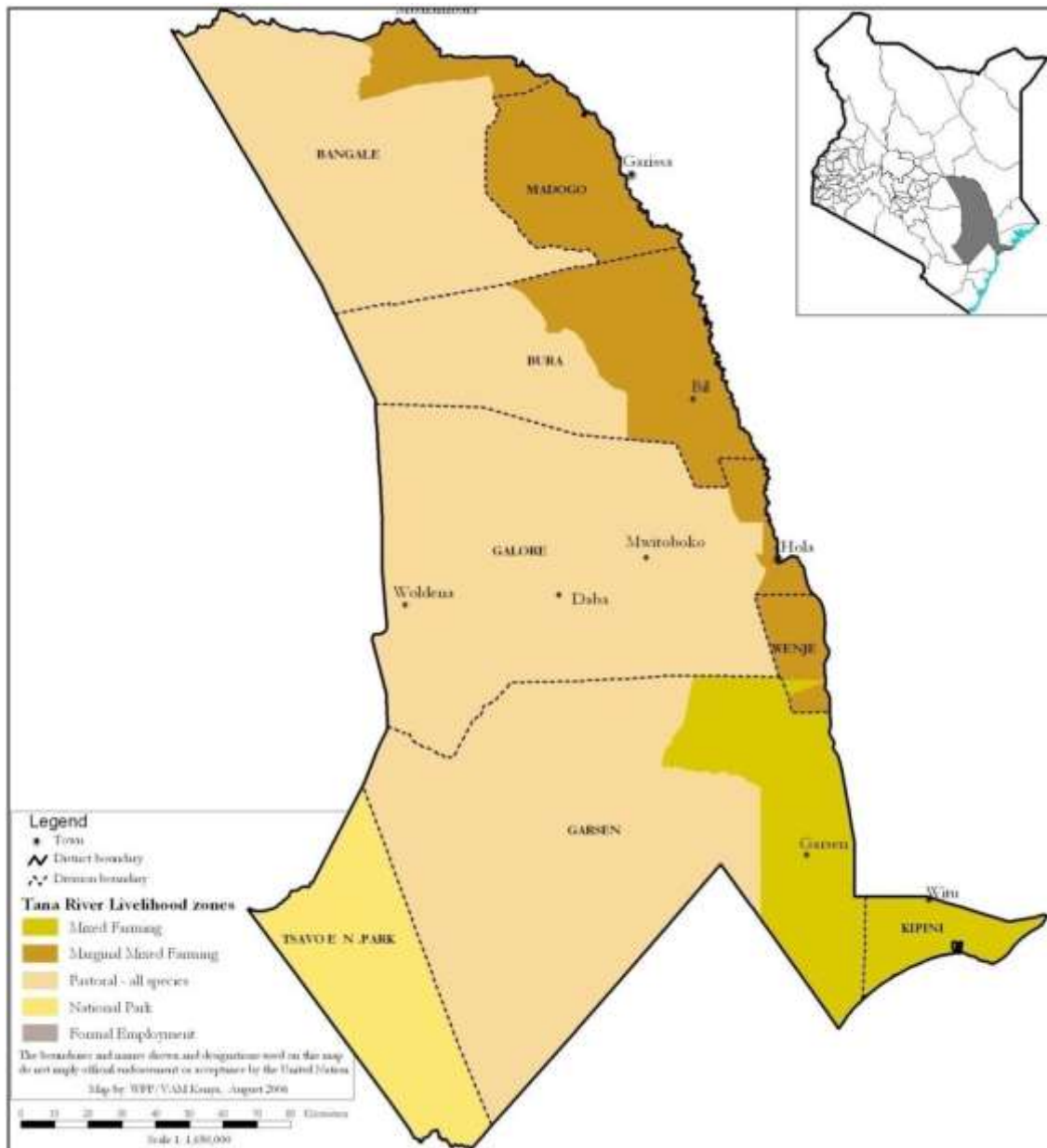
6.2 Livelihood zones in Tana River County

As noted above, the main livelihood systems in Tana River County are pastoralism and farming; however, these labels may obscure a more diversified picture, as said systems are in a state of transition. In recent years, farming communities have started also to keep larger numbers of livestock in and near their homesteads and pastoralists have started farming in the delta. Thus there is a transformation towards agro-pastoralism alongside the main livelihood systems that already exist.

The NDMA has categorised the county into three livelihood zones –the pastoral, the marginal mixed farming and mixed farming livelihood zones, as shown in Figure 2. According to the Tana River County 2022 *Long Rains Food Security Assessment Report* (NDMA, 2022b), 14% of the population live in the pastoral livelihood zone, while 48% and 38% live in the marginal mixed farming and farming livelihood zones, respectively (NDMA, 2022b, p.3).

⁶ Interview with Ms Mary Lulutiya of NDMA, Tana River County, Hola, 21 July 2022.

Figure 2: Livelihood zones in Tana River County



Source: NDMA (2002b)

The pastoral livelihood zone occupies the largest portion of the county. It covers the arid and semi-arid lands in the north and west. The dominant livelihood system here is mobile pastoralism. The dominant ethnic groups in this system are the Orma and Wardey pastoralists.

The marginal mixed livelihood zone is located along the river and stretches to the north of the county. The dominant livelihood here is agro-pastoral and is dominated by the Orma people.

The mixed farming livelihood zone is located in the southeastern part of the county and is dominated by farming along the river banks. The Pokomo community resides in this zone and

owns mango plantations as well as maize, beans, green grams, tomato and watermelon plantations. The Pokomo also raise a small number of livestock on their farms.

Crop production is dependent on the long rains that usually occur between March and May in the mixed farming livelihood zone. The communities living in this zone utilise the October to December short rains for their cultivation. In addition, the marginal mixed farming communities practise crop production under irrigation along the flood plains of the river. Maize, green grams and cowpeas are produced under rain-fed irrigation practices. The communities living in the three main livelihood zones described above earn variable incomes from livestock and livestock products. According to the Tana River County Long Rains Food Security Assessment Report (NDMA, 2022b, p.6), the livestock sector contributed about 68%, 20% and 15% of cash income in the three zones, respectively. It is evident that, as a result of the ongoing drought, pasture and browse conditions are deteriorating in the county, especially in the pastoral zone (Table 4).

Table 4: Pasture and browse conditions in Tana River County, 2022

Farming community	Pasture		Browse	
	Current	Normal	Current	Normal
Pastoral	Poor	Fair	Depleted	Good
Marginal mixed	Fair	Good	Fair	Good
Mixed farming	Fair	Good	Fair	Good

Source: NDMA (2022b, p.7).

The drought has also caused livestock health to worsen significantly, as a result of declining water and pasture conditions (Table 5).

Table 5: Livestock body condition in Tana River County, 2022

Livelihood Zone	Cattle		Sheep		Goats		Camels	
	Current	Normal	Current	Normal	Current	Normal	Current	Normal
Pastoral	Fair-poor	Fair	Depleted	Good	Fair-good	Good	Fair-good	Good
Marginal mixed farming	Fair-poor	Good	Fair	Good	Good	Good	Fair-good	Good
Mixed farming	Fair-good	Good	Fair	Good	Good	Good	n/a	n/a

Source: NDMA, (2022b, p.9).

Tropical Livestock Units (TLUs)⁷ were reduced by 50% in the pastoral and marginal mixed

⁷ The concept of Tropical Livestock Units is an old one and is used to define herd structures in terms of the number of herd of animals converted to a common unit. The camel, with assumed average live weight of 250kg, was assigned 1 TLU, cattle 0.7 TLU and sheep and goats were assigned 0.1 TLU (see Rothman-Ostrow, P. et al.,2020).

farming zones for both poor and medium-income households (NDMA, 2022b, p.9). In the mixed farming zone, TLUs were reduced by 25% and 50% for poor and medium-income households, respectively. These reductions are attributed to a reduced number of births and increased destocking as a result of the ongoing drought (Table 6).

Table 6: Tropical Livestock Units by household income groups in Tana River County, 2022

Livelihood zone	Poor households		Medium-income households	
	Current	Normal	Current	Normal
Pastoral	5	10	10	20
Marginal mixed	2	6	6	10
Mixed farming	1	4	4	8

Source: NDMA (2022b, p 9).

6.3 Impact of climate change/environmental degradation on livelihoods

Livestock and pastoral production

As is the case in other regions in the country inhabited by pastoralists, drought is the single-most stressing event in the pastoral livestock production system in Tana River County. The northern and western parts of the county have been particularly badly affected. Typical rainfall is highly variable across the county, ranging between 280 mm and 900 mm annually (Tana River County, 2018). Residents of Wayu village in the hinterland reported that “they last received rain in 2020, no rains in 2021 and no rains in 2022”.⁸

Mobility is a coping strategy to circumvent the effects of drought. As they migrate with their livestock to find grazing pasture, the pastoral communities in the county face numerous challenges relating to the uncertainties surrounding the decision to migrate and the places to migrate to. As the drought progresses, the pressure on the delta increases and that is a recipe for conflict. Another challenge is that, during droughts, the bodily condition of livestock deteriorates because of the stress the animals are subjected to. This leads to depressed livestock prices, which negatively affect pastoralists’ overall income. In the advanced stages of drought, livestock may become too weak to be sold in the market, meaning that pastoralists are unable to minimise their losses by selling off some of their herds. At even more advanced stages of drought livestock deaths increase; such occurrences have been reported in 2021 and early 2022. The NDMA and Kenya Red Cross Society have issued warnings on livestock deaths in the county.⁹

At the time of the study, the drought was severe for the residents of Wayu village. The community stated that, whereas the last drought affected only livestock, in 2022 it is affecting both humans and livestock, causing a serious lack of water for domestic use as well as hunger.

⁸ FGD, Wayu village.

⁹ <https://www.kbc.co.ke/over-80000-people-in-tana-river-county-in-dire-need-of-food-assistance/>. Accessed: 15 August 2022.

The Kenya Red Cross Society and NDMA estimates for the entire county indicate that more than 80,000 people are at risk of starvation and that drought has caused the deaths of more than 2,000 head of livestock.¹⁰ Also, according to the residents of Asa village, about 40% of the residents have moved to the delta as a result of the effects of the drought in the area.¹¹

Water infrastructure

Thanks to the increasing intensity of the ongoing drought, water sources are quickly depleting. The view from Wayu village, which is located about 50 km to the west of the county town of Hola, is a depressing one. The village was settled during the colonial era, and is regarded as one of the oldest in the Orma rangelands. The main reason for the establishment of the village was the stream (locally referred to as *laga*). The *laga* has not only changed its course, but has also dried up because of what the locals refer to as '*oola*', meaning drought. The name of the *laga* is Galole; this is a seasonal river that originates in the neighbouring Kitui County and drains its water into Tana River. The community uses the *laga* water during the rainy season.

As the *laga* is seasonal, it was dry at the time of our visit and the community reported having trouble finding water for domestic use as well as for their animals. They stated that "the nearest water point is at Dhaba village, which is located 15 km away from Wayu".¹² One of the elders in Wayu village said that "water is the main problem in Wayu. You use a vehicle to fetch water and if you do not have one, you use a motorbike, a donkey or your back to fetch water from Dhaba, which is 15 km away."¹³

Water infrastructure is also being damaged by pressure from the drought, as well as by usage and conflict. When asked about water sources for Wayu village, residents stated that "the Galole seasonal river passes near the village and also they have a water pan that was destroyed by elephants, but now the nearest water point is at Dhaba, located 15 km from here."¹⁴ The destroyed water pan is located at Wayu Duka, about 4 km from Wayu village. The pan had a fence, but the villagers reported that it was destroyed by elephants as they strayed from the Tsavo East National Park during the dry season. The fence has thus far not been repaired.

6.4 Women and water woes in Asa and Wayu villages

Asa and Wayu villages and the entire pastoral rangelands in the north and west of Tana River County are in the middle of one the worst droughts in decades. The following sections highlight the extent of the problem of drought in terms of water shortages in these two villages and describe how water scarcity disproportionately affects women in terms of time

¹⁰ <https://www.kbc.co.ke/over-80000-people-in-tana-river-county-in-dire-need-of-food-assistance/>. Accessed: 15 August 2022.

¹¹ FGD, Asa village.

¹² FGD, Wayu village, 23 July 2022.

¹³ FGD, Wayu village, 24 July 2022.

¹⁴ FGD, Wayu village, 23 July 2022.

and labour spent looking for the precious commodity in the pastoral setting.

Asa women and the daily struggle for water

Asa village is located to the west of and about 80 km from the county town of Hola. It is a small village inhabited by Orma pastoralists and its unique feature is a huge dam dug by the government in 1988, which the village and neighbouring villages use for domestic purposes as well as for their livestock. One of the elders in Asa village stated that, during the dry season, they used to slaughter a bull and distribute the meat to the community.

The women we met and interviewed at the water pan came from neighbouring villages to fetch water. Here is their story:

We departed from our village this morning at 8 am and got here at the water pan in Asa village at 11 am, that is, after three hours of walking with our donkeys and empty water Jerris cans. There is no long waiting time here as the pan is expansive and livestock are not allowed to drink directly from the pan. We depart from here at about midday and arrive home at about 4 pm, after a four-hour walk with our donkey loaded with water. (FGD with women at the water pan in Asa village)

The water pan in Asa village is fenced properly, and livestock are not allowed to enter the premises as the water needs to be kept clean for domestic use. Elders stated that, when the water in the pan is exhausted, the chief will raise an alarm with the county authorities, seeking a quick intervention for water trucking to begin and humanitarian agencies to step in to deliver food aid. Soon after the alarm, the county begins to truck water to the village and humanitarian organisations start delivery of food aid and other essentials. According to our FGDs, the water pan in Asa dried up in 2021 and the area chief raised an alarm asking for assistance. The support was overwhelming as NDMA, the government's Resilience Project, and the NGO World Vision all came to intervene, but their efforts were not fully effective. Discussants stated that the water bowser came to Asa village only after four days and people were forced to cook food using bottled water. They stated that, if there is sufficient water, their land can grow pasture, but that they need boreholes to increase sources of water. If the current drought persists, the elders stated that they would have to ask for water trucking, since such boreholes are not available.¹⁵

Wayu women and the daily struggle for water

In Wayu, travelling to collect water, sourcing it and dealing with the scarcity of water are the burdens of the women in the community. The following example from the women of Wayu illustrates the difficulties they bear in bringing water to their huts.

We leave the village at 6 am to embark on our journey of looking for water and that is before having breakfast. The journey is a three-hour

¹⁵ Interview in Asa village, 31 July 2022.

walk and we reach there at about 9 am. Sometimes we find goats, sheep and cattle drinking so we have to wait until they are done. That waiting period can last up to two hours sometimes. We depart with our backs packed with Jerri cans full of water at about 11 am and reach home at about 2–3 pm. Upon arrival, we go again looking for grass for goat and sheep kids that are left at home.¹⁶ (FGD with women in Wayu village)

In Wayu village a humanitarian organisation known as Sharja drilled the only borehole in 2020.¹⁷ The water is saline and the community hopes to desalinate it to make it fit for human consumption. For now, this is the only free way to access any source of water within the village. A daily scramble for water is another challenge faced by women trying to benefit their homes and livestock, as shown in Figure 3.

Figure 3: The women of Wayu and the scramble for water



Source: Photo by Hussein Abdullahi Mahmoud, 23 July 2022.

The overall effect of drought on water sources is that it has led to dried up boreholes and water pans. The drought has affected women and young girls by increasing the distances they have to travel to fetch water. Mothers must leave their children for extended periods. An important implication of the absence from their children of breastfeeding women for an extended period is an increase in malnutrition cases, as necessary and proper childcare is superseded by the urgent need to source water for drinking and preparing food, and for other

¹⁶ FGD, Wayu village, 23 July 2022.

¹⁷ It was not possible to establish the details of the organization at the time of the fieldwork.

domestic uses (see Burns et al, 2021).

There is evidence of increasing child malnutrition rates in the pastoral livelihood zone in Tana River County. For example, according to NDMA (2022a, p 10), “the proportion of sampled children less than five years of age at risk of malnutrition increased to 28.5% compared to the previous month at 28.01%. This is attributed to reduction in milk production and consumption at household levels, lower purchasing power and scarcity of vegetables ... The numbers of children at risk have been on the increase since February 2022 to date. The GAM rate is currently at 14.2 percent as per the SMART survey done in February 2022 indicating increase in malnutrition cases.”

The other option for obtaining water is to purchase it from traders who arrive with water bowsers or mobile tanks, but they sell this water at extremely high prices. According to local women in Asa village, local traders fetch water from the River Tana, deliver it to Wayu village and sell a 20-litre Jerri can for KSh25. They stated that “we have been buying water for the past two years”,¹⁸ which shows a certain level of frustration with the prolonged drought.

6.5 Water for livestock

The deterioration of water availability has had a severe effect on livestock. The Tana River County *Long Rains Food Security Assessment Report* (2022, p 7) notes that “return trekking distances for livestock from grazing areas to water points across all the livelihood zones is gradually increasing as most water sources have started drying up”. The average return distances for pastoral livelihood zones is currently 12 km, compared with 5 km during normal times. In the marginal mixed livelihood zones average return times now stand at six hours, compared with four hours during normal periods. The current water situation in the county is such that the mixed farming livelihood zone depends on the river for its water requirements as well as on other sources, such as irrigation canals and boreholes, which means that it possesses permanent water sources. Current water sources are likely to last for only one to two months before they dry up in the pastoral and marginal mixed farming livelihood zones, however (NDMA, 2022a, p.7).

The main water sources in the pastoral livelihood zone include shallow wells and water pans. In the marginal mixed farming zone, sources of water include the Tana River and water pans, while in the mixed farming livelihood zone the main water sources are the river itself, irrigation canals and boreholes.

The water pan in Asa village is used for both domestic purposes and livestock. According to the FGDs in the village, the water pan used to be open, that is, unfenced. Now it is fenced and the idea is to prevent livestock from going directly into the pan. By use of pipes the water is drawn from the pan into smaller water troughs located outside the fence, as shown in Figure 4.

¹⁸ FGD in Wayu, 23 July 2022.

Figure 4: Water for livestock in Asa village



Source: Photo by Abdurahim Kulow, 23 July, 2022.

The residents of Asa village stated that “we are now in crisis period as livestock from neighbouring villages, such as Odo Ganda, Dase, Onjila and Gerarsa have come to Asa because their water pans have dried up and we may not reach the month of August before the crisis worsens”.¹⁹

6.6 Mobility

Mobility is an important coping mechanism and a crucial pathway for circumventing the effects of droughts. The pastoral community in Tana River County exploits this strategy to protect their lives, livestock and livelihoods. For example, according to the Asa elders, about 40% of the pastoral households in that area have already moved to the delta, which, according to the elders, is the only place they move to because it is their home county and also there are fellow Orma pastoralists already settled in several villages there, such as Kipao, Dide Waride and Odole. The movement to the delta from the pastoral rangelands is seasonal; residents of Wayu village explained that “during the wet season the delta people come here and we go there during the dry season”.²⁰ This is an indication that those who reside in the rangelands

¹⁹ FGD, Asa village, 31 July 2022.

²⁰ FGD, Wayu village, 23 July 2022.

come back during the rainy season.

They also stated that their alternative movement directions include Galana Ranch and the Tsavo East National Park, which are both owned by the government. Livestock can only be trekked into the restricted, pasture-rich park through illegal entry, which attracts heavy fines or imprisonment, as determined by the National Park authorities, if they are caught. Corroborating this assertion, the FGD at Asa village indicated that “the delta is the only place to move to for Asa pastoralists, but Galana Ranch and Tsavo East National Park can be accessed through sneaking in illegally”.

The relevant provisions of Kenyan law as far as intrusion into its National Parks is concerned include Section (102), Subsection (2) of the Wildlife Conservation and Management Act of 2013, which states that “no person shall enter into a national park with any livestock for any purpose without authorization.” Subsection (3) outlines the penalties involved thus: “any person who contravenes Subsection (2) commits an offense and is liable upon conviction to a fine not exceeding one hundred thousand shillings or to imprisonment for a term not exceeding six months” (Republic of Kenya, 2013).

Orma politicians have been pushing for the de-gazetting of the Galana ranch so as to allow pastoralists access to the vast rangeland.²¹

6.7 Decisions taken during droughts/dry season

Individual households take the decision to move, the elders make decisions on behalf of the community, especially regarding preservation of resources, such as water. For example, in Asa, the residents stated that “the village water pan was dug in 1988 and used to be open, but now keeps the cattle out (through fencing it) and only people go in to fetch water from inside.”²² When it comes to community welfare, such as the maintenance of a water pan, the community takes the decision to protect it.

Men in pastoralist societies go scouting for water and pasture and are responsible for migration and participation in the livestock trade. In some cases, pastoralist migration is long-distance and involves crossing county, or country, borders. These kinds of migration are decided upon and undertaken by men, for example in the case of camel herders coming into Tana River County from northeastern Kenya. Men make the decisions over when animals are taken to the market for sale and on prices. Men are also involved in decisions regarding new water sources or rehabilitation of old structures, such as digging wells or constructing fences around water pans. As women in Wayu village put it, “in Wayu men drill boreholes and look after livestock”.²³

FGDs in Asa and Wayu villages revealed that, during drought, village elders deliberate together

²¹ See Ali Wario’s petition at <https://www.the-star.co.ke/news/2021-08-11-mp-wario-wants-adc-land-in-galana-degazetted/>.

²² FGD, Asa village, 31 July 2022.

²³ FGD, Wayu village, 23 July 2022.

on where and when to move. For example, in Asa village residents stated that “when drought intensifies, the elders decide for the community to move”.²⁴ The elders making the decision to move are males, reflecting the patriarchal structure of the society. However, the severity of this drought has made people uncharacteristically individualistic and such practices are no longer possible. One of the elders explained this shift in Kiswahili, “*wewe ni wewe na mimi ni mimi*” (“you take care of your affairs, and I take care of mine”).

The significance of this change in thought processes during a drought situation like the current one is that the community is slowly losing its grip on collective responsibility and is adopting more individual decision making to survive, particularly when it comes to when and where to move.

However, this does not mean that the community has failed to address issues related to the use of scarce water resources and its regulation. According to the focus group in Asa village:

You cannot move alone, but have to ask your neighbour to carry [food] ration for the journey. It takes two days to trek from Asa village to Garsen (that is, near the river) town so one person must lead who knows the route and can guide the livestock. You take a bull to carry the luggage, but 50% of the residents have motorbikes to bring you water and food and also to carry goat kids.

The increasingly individualised nature of mobility is aided by the aforementioned motorbikes, which provide support in delivering supplies and making the journey less arduous. In this way, not all people see the increased individualism of mobility as a problem, as long as they have access to motorbikes or other support and do not need to rely on their fellow community members.

Whether seen as a positive or negative development, it is clear that the current practice has diverged significantly from the past in the sense that individual households are making independent decisions on when and where to move to and these decisions are spearheaded by men. Men do share information about rainfall, pasture conditions and security, especially in the age of increased use of mobile phones and motorbikes. In addition, many households have extended-family members in other places, such as the delta, and they often choose to move to areas where they can stay with relatives.

The FGDs with Wayu women provided rich insights into how individual decisions are taking root among pastoral communities in Tana River County and also into how mobility is important for them generally and in some instances helps them rescue their livestock and livelihoods. The following examples illustrate this point.

The first woman migrated from Wayu to Gururi village, which is about 25 km distant. She stayed there for one year and came back when the rains started in her village. She had

²⁴ FGD, Asa village, 31 July 2022.

migrated with five cattle, and came back with ten cattle. She gave birth there, but came to raise her child in Wayu. Her child is now attending high school in Form 1.

The second woman migrated from Wayu to Hola then to Komoli, a total of about 67 km and stayed away from her home for nine years. From Komoli she came back to Wayu, which is her home village. She migrated with 25 cattle and when she came back she had a total of 50 cattle. Now she has only four cattle left, and it has been 12 years since she last migrated. Her inability or unwillingness to move again has led to the destruction of her herd. She has children going to high school, one in Form 1 and another in Form 3. In the FGD, the woman stated “now to migrate is difficult because of schools. First, we want our children to go to school and second, we do not have cattle to move with.” Another woman said “no migration from here because of schools”.²⁵

The pastoralist community is a dynamic not a static one. Pastoralist families are quite mobile within the county in search of rangeland resources to support their livestock economy. We have learned from these stories that mobility affords pastoral families a pathway to safeguard their livestock through movement to places that have pasture and water. We also found that mobility is not an option for those families whose livestock numbers have dwindled. Second, education is being perceived as an important investment among these pastoral families and that is why the two women cited above mentioned having children in school, which makes it difficult for them to move as that could affect their children’s education.

The two women and their stories about mobility demonstrate pastoralist movement decisions being made at the household level. Had the movement been a community decision, families would have moved together and their stories might be more similar. Second, it is an illustration that the decision to move was made at the family level, depending on who heads the family. For female-headed households, decisions are made by women for their families and for male-headed households decisions are made by men. As mentioned previously, the preferable destination for dry-season grazing is the delta. But individual families can choose where to move depending on the availability of water, pasture and security and sometimes on relatives or neighbours already being there. How long they stay there normally depends on when the rains come. At such time livestock are returned to their villages as the water pans will be full and pasture plentiful. These are regular pastoral mobilities and that is why families have come back to their villages. These are not different or new movements in any way and are part of the dry season–wet season movement. The first woman stayed for a shorter period as compared with the second, who stayed for much longer and when she came back she never moved again.

What we need to realise here is that, when a pastoralist household wants to move from Wayu or any other village in northern Kenya, they do not have to consult anyone or take permission from any authority, especially when the move is drought-related and takes place during the dry season. This is part of the normal pastoral mobility that occurs across the region to access

²⁵ FGD Wayu village, 23 July 2022.

water and pasture. A pastoral family can just wake up one morning and head out of the village with their livestock and some belongings in the direction where they think water and pasture will be available. This household decision does not vary whether the head of the household is a man or a woman. For example, we met a family in the delta near Kipao village from Oddo Ganda village in the west of the county, near Asa village. This family was made up entirely of men and had moved alone from their village to the delta; family members will go back in their own time upon the arrival of the rains in the rangelands, without the need to consult anyone else. All their actions stem from their own decisions and it is important to note that this is not forced migration or displacement of pastoral communities, at least for the pastoralists of Tana River County. The case is different for pastoralists from the northeast, as shown in the Tana River County report. On the other hand, Schrepfer and Caterina (2014) argue that pastoralists may be displaced following loss of access to resources and markets, cattle rustling and conflict over resources, as is the case in Turkana County.

6.8 Climate–conflict–migration nexus in Tana River County

According to Kibugi and Lanyasunya (nd), pastoralism faces unprecedented threats from the impacts of climate change. In Tana River County, pastoral communities inhabit the northern and western areas, which are highly vulnerable to the effects of drought, a situation that is prompting them to move to the delta. It is during this movement that pastoral communities come into contact with settled farming communities and conflict may ensue. According to an NDMA official in the county, “conflicts erupt when pastoralists migrate to the marginal mixed livelihood zone”,²⁶ which is located along the river and is also used for cultivation during the rainy season. Further, according to the same source, “those who come from other counties [referring to migrating pastoralist communities from northeastern Kenya and Somalia] come with camels, especially in Tana North, causing a lot of destruction and cutting as they migrate.” No major conflict has been reported with the locals so far in the current drought but conflicts have been reported in the Tana River and Kitui counties border areas (involving the migrating pastoral communities and residents of Kitui County).²⁷

An FGD in Asa village reported tense relations between resident pastoralists and ‘foreign’ pastoralists from the northeast, whom they accused of “come[ing] with camels, we do not understand each other and the herders cut trees. When camel herders are told about water and grass regulations, they do not accept our rules and we have conflicts with them. Although conflicts are not frequent, we resolve them amongst ourselves.”²⁸

According to the FGD in Wayu village, “herders from the northeast migrated to the Tana River County/Kitui border area and established three permanent settlements, namely Kalalani, Did Ade and Nyali, with permanent buildings and schools. Also, the Somali herders were accused of causing insecurity by kidnapping Kamba motorbike riders and killing people in Hola. All

²⁶ KII, NDMA, Tana River County, 21 July 2022.

²⁷ Ibid.

²⁸ FGD, Asa village, 31 July 2022.

these led to conflicts with the residents of Kitui County. The government reportedly evicted the Somali camel herders and demolished the three villages, which had been established at Kalalani, Did Ade and Nyali.²⁹

On the subject of ‘foreign’ pastoral communities, that is, Somalis from the northeastern counties of Garissa, Mandera and Wajir and also from southern Somalia, informants said that their migration was permanent, long distance and instigated by droughts. Their main objective is trade and transit to the counties of Kitui, Kilifi and Taita Taveta ranches, but they must pass through Tana River County to reach these areas. As they graze in the county, they have often come into conflict with communities adjacent to it. For example, there were fatal conflicts between these groups in September 2019 and several thereafter in the Tana River and Kitui counties border areas (Nzengu, 2019). The most recent conflict occurred in May 2022 in the same border area (Nzengu, 2022).

In 2012, conflict erupted in Tana River County, resulting in several deaths and the displacement of thousands of people. According to Human Rights Watch (2013, p 3), “around 180 people [were] killed in fighting between the agriculturalist Pokomo and the pastoralist Orma communities. An estimated 34,000 people have been displaced. Both communities complained about the police’s failure to provide protection or arrest the perpetrators of violence, which they said led both groups to take justice into their own hands.” Following the aftermath of the conflict, the then governor of Tana River County, Hussein Dado, launched the ‘Tana River County Peace Declaration’ among the various communities residing there. At the meeting, causes of the conflict were given as “disputed use of land and ownership, disputed sharing of natural resources such as pasture and water, politics, negative ethnicity and proliferation of illegal firearms”.³⁰

The NDMA has reported that there is ongoing increased livestock movement into dry-season grazing land in Tana Delta (NDMA, 2022a). As a result of this movement, tension is increasing between herders and farmers in the delta. In addition, in August it reported that there was a high influx of cattle and camels from northeastern counties moving into Tana River County, triggering resource-based conflict across the pastoral and marginal mixed livelihoods zones of the county (NDMA, 2022a).

According to our field data, “conflicts erupt internally between pastoralists (Orma) and settled farmers (Pokomo) when pastoralists move to marginal mixed livelihood zone and the Tana Delta and also erupt between in-migrating pastoralists (Somali camel herders from Garissa, Wajir, and Mandera Counties) on the one hand and local pastoralists (Orma and Wardey) and agriculturalists (Pokomo) leading to communal conflicts.” Also, according to this key informant: “Agreements are usually made between local pastoralists and farmers, but ‘foreign’ pastoralists are ignorant about local conditions and regulations that already exist, so when

²⁹ FGD, Wayu village, 23 July 2022.

³⁰ <https://act.or.ke/a-peace-declaration-launched-in-tana-river-county/>.

those agreements are violated, foreign pastoralists become vulnerable to attacks from local pastoralists as well as the farming community.”³¹

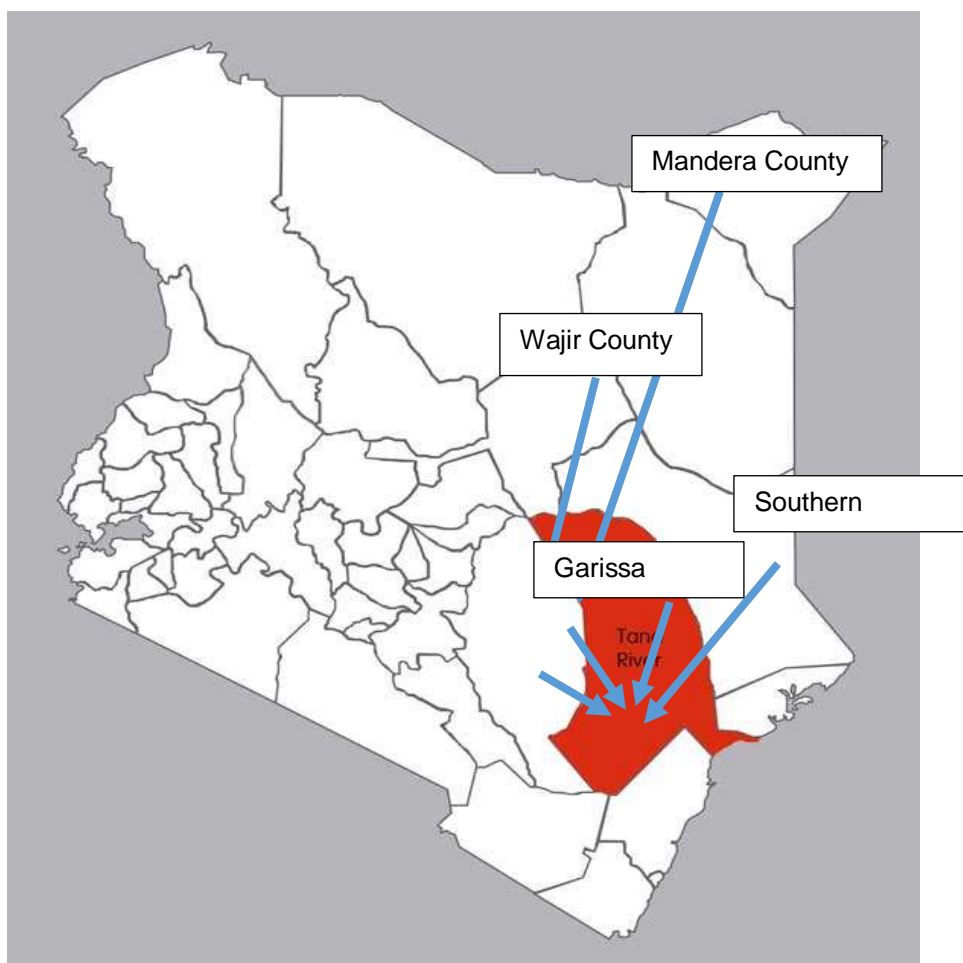
6.9 Mobility and destinations

From our findings, the general direction of movement is towards the delta. The amount of time that households stay in the delta is dependent upon how long the rains are delayed in the rangelands. However, as soon as the rains start in the rangelands, not only do the livestock from the interior come back, but also the livestock of the Orma, who are permanently settled in the delta, also move to the interior rangelands to make use of the abundant rainwater and pasture. Therefore, the movement is cyclical in the sense that, during the dry season, movement is towards the delta and when the rains come, the movement is back to the rangelands. According to our FGDs and KIIs, there are at least four types of movement and displacement that occur in the county, as explained below and shown in Figure 5.

- Local pastoral communities (the Orma and the Wardey): their movement is seasonal (back and forth between the delta and interior rangelands located in the northern and western parts of the county), is long distance, is instigated by droughts and may last several months.
- Local pastoral communities (the Orma and the Wardey, who live in the delta permanently): their migration is short-distance and permanent, or settlement. They have been displaced by floods in the delta, and have migrated to Minjila village on the Malindi-Hola highway.
- Local pastoral and farming communities (the Orma and the Pokomo): their displacement was instigated by conflict in the delta in 2012. It was short-distance and permanent. Each group migrated to villages inhabited by their communities.
- There were some permanent and long-distance displacements to Malindi, Kilifi and Mombasa from both communities.

³¹ KII, NDMA official, Tana River County, 21 July 2022.

Figure 5: Livestock movements into Tana River County



Source: Hg'asike et al, 2020.

The drought–migration–conflict nexus

The issues that surround the debate about the linkages between migration, mobility and climate change in Tana River County revolve around drought, migration and conflict. The starting point is generally drought impinging upon people's livelihoods, making adaptation to their livelihood activities necessary. This may ultimately lead to people shifting their mobility patterns by moving into new areas, staying longer in places where grazing or farming opportunities are better or, for some, permanent migration out of the area, particularly into urban areas. If not well managed, these forms of mobility may cause conflict, especially if they encroach on other people's land, property or resource claims. Farming communities in the Tana Delta blame pastoralists for grazing their animals on all the available pastureland, thereby endangering the livelihoods of local farmers. On the other hand, pastoralists blame farming communities for turning livestock movement corridors into farms, which thereby block livestock access routes to the river and endanger the former's livelihoods. Pastoralists perceive

conflicts erupting as a result of restricted migration, which increases vulnerability and causes instability in the pastoral production system.

In other cases, farmer and pastoralist conflicts may occur in the delta when pastoralist communities, in the process of migration, trek through farms and destroy crops. The deadly conflict of 2012 was partly intended to displace the Orma pastoralists from the delta because they were perceived to be non-indigenous to the area. It eventually became political when the Pokomo farmers intended to displace Orma pastoralists from the delta as the latter were considered non-indigenous and also causing a menace to Pokomo farms. But a large part of the subsequent conflict between communities is blamed on Somali camel pastoralists from the northeastern region, especially Garissa, Mandera and Wajir counties. The dominant narrative about the conflict in the delta concerns congestion among the animals there. Our report suggests that policies to address conflict and displacement in the delta should consider recommendations geared towards decongesting it.

Generally, mainstream thinking about migration within the county, security and humanitarian authorities in Tana River County is that it is a disorganised and haphazard movement of an enormous number of livestock from the rangelands into the riverine area. The extreme case is the mass migration of livestock from across neighbouring counties. The effects of these movements are quantified in terms of farms invaded by pastoral communities on the move and conflicts caused between sedentary farming and mobile pastoral populations. For the humanitarian community, pastoralists' movements need to be curtailed at source through provision of water and pasture. For the county and national security organisations, pastoral mobility causes security threats as pastoralists are alleged to carry arms during their movement. For these reasons, it has been difficult to consider pastoral migration from the lens of drought risk mitigation or of adaptation in the face of environmental change.

6.10 Insights on climate-related displacement in Kenya

The effects of climate change seen in Tana River County are in many ways typical of changes seen throughout the rest of Kenya. Vulnerability to drought and other environmental factors has been increasing in severity over the past four decades and this has been associated with environmental degradation caused by the expansion of urban areas, by industrial and infrastructural development, the extension of agricultural land into forests, and the logging and burning of trees for charcoal to sell for economic gain. Climate-related displacement in Kenya is widespread and is especially attributed to drought and floods (Government of the Republic of Kenya, 2009; Schrepfer & Caterina, 2014). For example, drought-related displacements are frequent in the pastoral areas of the north and northeast, as well as in the northwest of the country. Floods are frequent in the low-lying areas of western Kenya and along the Tana River Basin at the coast (Government of the Republic of Kenya, 2009).

Climate change has also increased the frequency and magnitude of extreme weather events in Kenya, causing loss of life, diminished livelihoods, reduced crop and livestock production and damaged infrastructure, among other adverse impacts. An example is the torrential rains and

severe flooding in many parts of the country from March to May 2018, which devastated communities that were already struggling to recover from a prolonged drought. Climate change is likely to negatively affect Kenya's future development and its achievement of the goals of *Kenya Vision 2030* – the long-term development blueprint – and the government's Big Four agenda for 2018–22, which focuses on ensuring food and nutrition security, affordable and decent housing, increased manufacturing and affordable healthcare. Kenya takes climate change seriously, as demonstrated by the enactment of the Climate Change Act (Number 11 of 2016). This Act requires the government to develop five-year National Climate Change Action Plans (NCCAPs) to guide the mainstreaming of adaptation and mitigation actions into sector functions of the national and county governments. Kenya has two NCCAPs (NCCAP 2013–2017 and NCCAP 2018–2022), which are discussed below.

Displacement and other forms of devastation as a result of drought and floods have escalated in frequency and intensity since 2009, when the figures presented in Table 1 were tabulated. In fact, the extent of displacement in Kenya's pastoral counties is massive. Schrepfer and Caterina (2014) state that pastoralists in northern Kenya are facing internal displacement, which needs to be understood within a broader discourse on mobility. They examined three forms of mobility in Kenya's pastoral context – traditional nomadism, adaptive migration and displacement. While the first two are voluntary movements, the third is a forced form of mobility. They put forward three proposals for new thinking required to better understand the complexity of the internal displacement of pastoralist populations. First, they assert that the policy-making process should discard the prevailing assumption that pastoralist populations cannot become forcibly displaced. Second, they note that internal displacement of pastoralists is a source of impoverishment and causes decreasing resilience. Third, they argue that displacement of pastoralist populations is as a result of multiple causes. Their report creates a conceptual understanding of the phenomenon by examining its multi-causality and sub-regional implications. In doing so, it also discusses processes and options for improving protection and assistance for those affected and those making policy recommendations.

Pastoralist displacement is driven by many causes, namely climate change, cross-border conflict, livestock rustling, over-exploitation of natural resources and scarcity of grazing lands (Schrepfer & Caterina, 2014; Warner et al, 2014). According to UNHCR, "By the end of 2021, the East and Horn of Africa and the Great Lakes region hosted 4.9 million refugees and asylum seekers, as well as 12 million internally displaced people".³² These displacements are attributed to drought as well as to rising prices (a function of local, regional and global dynamics), and to conflict.

Pastoralist populations' displacements can be understood within a multi-causal setting, thus making our understanding of the connections between climate change, environmental degradation and migration complex. Moreover, the notion that pastoralist populations may be displaced and become internally displaced people (IDPs) is not common among policy makers

³² UNHCR (2022). <https://reporting.unhcr.org/globalreport2021/ehagl>.

and development agents. Thus, it is imperative that policy and programming regimes are examined thoroughly to better understand the ways in which the Kenyan government, at both the central and county levels, and development actors include migration in climate change policies (see the Recommendations section below).

6.11 Climate and environment policy and programming in Kenya

At the 2021 UN Climate Change Conference (COP26) in Glasgow, countries agreed on “adaptation to reduce vulnerability, strengthen resilience and increase the capacity of people and the planet to adapt to the impacts of climate change” (2021, p 16). The COP26 resolution called upon each country to manage climate impacts by formulating a national plan. Kenya has two NCCAPs, as mentioned above. The NCCAP (2013–2017) recognises and makes reference to the link between climate change/variability and migration and states that “research is needed to assess migration as an adjustment or coping mechanism for climate variability and to identify alternatives to allow people to remain in their communities” (Government of the Republic of Kenya, 2013, p 38). However, the NCCAP (2018–2022) did away with the idea of migration as a coping strategy and instead mentioned it in the context of “population growth and migration to urban areas” (Government of the Republic of Kenya, 2018, p 5).

The Kenyan government is making a great effort to strengthen the foundation for climate change policies and programmes in different ways. For example, the Ministry of Environment and Forestry (MoEF) coordinates and oversees the implementation of climate change policies in the country, while numerous other actors play crucial roles. These include government ministries and departments, local and international NGOs, private sector organisations, local and international research organisations and donor agencies.

Kenya’s commitment to addressing climate change issues is expressed through the development of various policy documents, such as the National Climate Change Response Strategy: Executive Brief (Government of the Republic of Kenya, 2010); the Kenya National Adaptation Plan (2015–2030) (Government of the Republic of Kenya, 2016); Sessional Paper No 5 of 2016 on National Climate Change Framework Policy (Government of the Republic of Kenya, 2017) and the NCCAP (2018–2022) (Government of the Republic of Kenya, 2018).

The National Climate Change Response Strategy (2010) sets out a blueprint for national management of climate risks. The Strategy acknowledges the support that the country’s vast rangelands provide to millions of mobile pastoralists and agro-pastoralists in the country and states that Kenya’s rangelands are increasingly becoming unproductive. However, it does not explicitly mention the mobility of pastoralists as a positive drought-coping mechanism. Rather, it portrays pastoralists and mobile pastoralism as more of a nuisance, stating that “pastoralists in search of pasture and water have encroached into game parks, chasing wildlife away from their natural habitats” (Government of the Republic of Kenya, 2010, p 11). The Strategy does predict that population displacement is likely to occur as a result of drought in northern Kenya and of sea-level rise in coastal areas (2010, p 11). This is a form of irregular migration as the Strategy states that those on the move are from rural areas heading to urban centres.

The State Department of Environment in the Ministry of Environment and Natural Resources prepared Sessional Paper No 5 of 2016 on the National Climate Change Framework Policy in 2016 to “facilitate a coordinated, coherent and effective response to the local, national and global challenges and opportunities presented by climate change” (2017, p 4).

The sessional paper states that it aims to ensure that climate change matters are integrated into development planning, budgeting and implementation in all sectors and at all levels of government. Further, the policy aims to cushion communities against climate variability and change through enhancement of their adaptive capacity and by building resilience. However, neither of the terms ‘migration’ and ‘mobility’ appears in the paper on climate change, even though mobility is one of the main forms of adaptation that people engage in to respond to environmental change. Creation of synergy among different sectors of the government is essential, as Kibugi and Lanyasunya (nd) argue. They call for the involvement and establishment of strong links between the central government, on the one hand, and county governments and pastoralist communities, on the other, to formulate policy processes to address adverse environmental impacts on them.

Although much is known about the impact of climate change in the region and despite the existence of these policies, the link between human mobility and environmental change has not been much reflected in official government documents and policy papers. Gaps exist at two levels. First, there is a lack of recognition of the processes of migration in the wider climate change/environmental degradation discourse in Kenya. Second, the links between policy development and implementation are not joined up at the national and sub-national levels.

In terms of implementation, the MoEF plays a central role. MoEF was created under Executive Order No 1 of 2018 and the development of climate change policy is listed as one of the mandates of the ministry (Government of the Republic of Kenya, nd). Through its Strategic Plan (2018–2022), the ministry acknowledges climate change as a global challenge and attributes to it the processes of droughts, floods, landslides, wind storms and hailstorms; it also blames it for producing food insecurity and diseases. In addition, the government has dedicated the Directorate of Climate Change in the MoEF to climate change policy matters. The directorate, which was established under the Climate Change Act of 2016, is mandated “to provide vision, leadership, guidance and coordination on matters relating to climate change”.³³

The NDMA is a public body established by the NDMA Act, 2016 and has a mandate to coordinate drought risk management matters; it is the largest state entity entrusted with establishing mechanisms to end drought emergencies in Kenya. Among its core mandates are drought resilience, drought information, drought contingency planning and response, and knowledge management and coordination. Under its role of coordination, the NDMA implements the Ending Drought Emergencies (EDE) Common Programme Framework to create

³³ http://www.environment.go.ke/?page_id=6279.

synergies between the national government, county governments and development partners.³⁴

At the county level, the NDMA reports livestock movements in its monthly bulletin for Tana River County. For example, for the months of July–September 2022 it reported increased livestock migration (meaning movement) towards the delta. It further stated that, with the increase in livestock (cattle and camels) migration from neighbouring counties into the delta, water and pasture resources would be depleted in the coming weeks, leading to tension between farming and herding communities (NDMA, 2022a).

The NDMA's *Joint Report of Kenya Food Security Steering Group and Tana River County Steering Group, 2022* does not mention mobility at all, but refers to livestock movement in the county as migration. The report provides detailed information on movements across all the livelihood zones within the county and those from other counties (NDMA, 2022b, p 10).

Drought emergencies were to end by 2022 according to the NDMA but, sadly, the 2021–22 drought is now considered one of the worst in the Horn of Africa in decades. The EDE Initiative is a new approach that recognises that droughts cause emergencies and the overarching premise is that arid and semi-arid counties are increasingly becoming vulnerable to drought as a result of weakening support provided to livelihood systems in these areas. The EDE is being implemented through a Common Programme Framework (CPF), which has two objectives and six pillars. The two objectives are to: 1) accelerate investment in the foundations for development; and 2) strengthen the institutional and financing framework for drought management. The six pillars are: 1) peace and security; 2) climate-proofed infrastructure; 3) human capital; 4) sustainable livelihoods; 5) drought risk management; and 6) institutional development and knowledge management.³⁵

6.12 Nongovernmental and UN policy

Outside of government, several policy instruments may assist in developing more appropriate strategies for responding to climate-related mobility and migration. In its *Institutional Strategy on Migration, Environment and Climate Change 2021–2030*, the International Organisation for Migration (IOM) (2021) states that it supports pastoralist communities in the Arid and Semi-Arid Lands (ASAL) of Kenya to protect traditional transhumance routes in the face of droughts, localised intergroup resource conflict and other obstacles to mobility (including within national borders). In Kenya's northern and northeastern regions, IOM is promoting comprehensive support for communities negatively affected by recurrent drought and erratic rainfall through two major interventions: 1) provision of support to preserve their traditional mobility-based livelihood model, which involves cattle herding; and 2) promotion of income diversification strategies in order to mitigate risks.

IOM's Migration, Environment and Climate Change: Evidence for Policy (MECLEP) project has

³⁴ <https://www.ndma.go.ke/index.php/features/about-ndma>.

³⁵ <https://www.ndma.go.ke/index.php/ede/ede-pillars>.

had significant relevance in informing a more effective approach to the environment–migration nexus in Kenya. The MECLEP will certainly generate a lot of insights for the current study. MECLEP is a three-year, European Union-funded, IOM-led project with aims to link research and policy. The project focused on six pilot countries – the Dominican Republic, Haiti, Kenya, the Republic of Mauritius, Papua New Guinea and Vietnam. MECLEP, which ran from 2014 to 2017, aimed to contribute to the global knowledge base on the relationship between migration and environmental change. It also aimed to formulate policy options on the benefits that migration could offer in terms of adaptation strategies to climatic and environmental changes.

The MECLEP project produced three significant works relevant to the Kenyan case, as Kenya was one of the partner countries in the project. One of the MECLEP publications (Melde et al, 2017) introduces the concept of “trapped populations” in reference to vulnerable people who are often trapped by disasters and environmental change, as is the case with pastoralist populations residing in Tana River County and other pastoral counties across the country. The report emphasises migration as an adaptation strategy to the traps associated with environmental and climate change. It aims to foster understanding of how human mobility can be an adaptation strategy and to increase knowledge of which vulnerabilities need to be addressed to reduce the risk of displacement and other challenges associated with environmental degradation and disasters.

The African, Caribbean and Pacific (ACP) Observatory on Migration is an initiative of the Secretariat of the African, Caribbean and Pacific Group of States, funded by the EU and implemented by the IOM. The ACP Observatory was established in 2010 to produce data on South–South ACP migration for migrants, civil society and policy makers. It aims to enhance research capacities in ACP countries to improve the situation of migrants and strengthen the migration–development nexus. Activities have been launched in 12 pilot countries – Angola, Cameroon, the Democratic Republic of Congo, Haiti, Kenya, Lesotho, Nigeria, Papua New Guinea, Senegal, Timor-Leste, Trinidad and Tobago, and the United Republic of Tanzania.

The ACP commissioned an assessment of migration data management in Kenya, which was undertaken between September 2012 and January 2013. The aim of the assessment was to evaluate sources and availability of existing migration-related data, as well as its collection, analysis, sharing, protection and dissemination. Specifically, it aimed to generate quality, up-to-date data on migration, which could be used in decision making, policy and planning related to migration and development, labour migration, remittances, internal migration and diasporas.

County policies

Tana River County has developed two key policies which are critical to understanding county policy initiatives with regard to disaster risk management and drought-related migration. The two documents are the Tana River County Disaster Risk Management Policy, 2020 and Tana River County Grazing Control Act, 2017.

The Tana River County Disaster Risk Management (DRM) Policy (2020) was launched by the County Governor, Dhadho Godhana, in May 2022. The DRM Policy is a document produced by the county government of Tana River and aims to increase county disaster preparedness and provide a timely response to floods, droughts and conflicts. The county partnered with CISP and others to raise funds for various interventions to reduce disaster risks in the county. The funds required are estimated at KSh11.4 billion (about US\$96 million) for the next five years. Other partners who have been involved in disaster risk management funding in the county include the national government, the EU, UN Development Programme, World Food Programme, the Kenya Red Cross and German Agro Action (Hassan, 2022).

The DRM Policy builds on the existing disaster risk management mechanisms being undertaken by the Department of Cohesion and Special Programmes, which is based in the Governor's office. In addition, the department coordinates response committees who deal with disasters at the sub-county levels, and a cohesion committee that deals with communal conflicts in the county.

The DRM Policy addresses the question of migration (meaning mobility) under drought and states that water shortages in the pastoral and marginal mixed farming zones lead to human and livestock migration (meaning mobility) into the delta area. The policy highlights some of the negative effects of this migration as leading to conflict between farmers and pastoralists and facilitating the spread of human and livestock diseases (p 13). In another section, the policy refers to mobility by stating that Tana River County will "adopt programmes addressing disaster induced human mobility to strengthen the resilience of affected people and host communities, in accordance with national laws" (Tana River County, 2020, p 23).

The Tana River County Grazing Control Act, 2017 addresses livestock movement controls within the county, both for livestock that come to graze there and those that transit through it en route for other counties. The operationalisation of the Act has stagnated since a different county administration came into power in 2017. It is also alleged that the Act has several undesirable clauses that restrict livestock movements in and beyond the county.

The purpose of the Act is "to provide for the establishment of a legislative and institutional framework for the management and orderly use of grazing resources; to minimise conflict and maximise peaceful coexistence between the various land users, through planning, identification and documentation of the areas according to the different types of land users in the county; to control the influx, movement and conflict brought by graziers from other counties and for connected purposes" (p 5).

The Act is specifically concerned with livestock movement into the county from other counties rather than with human movement. In this regard, it is meant to control what it refers to as "the influx, movement and conflict brought by graziers from other counties" (p 5). This is a positive step for the pastoral and farming populations of Tana River County, but negative for the pastoral populations from neighbouring counties who depend on the water and pasture resources of the county.

Within the Act, several ‘undesirable clauses that restrict livestock movement’ have been noted:

- The control of livestock movement into Tana River County will further exacerbate conflict between pastoral communities migrating with livestock into Tana River County and residents. The reasoning of pastoralists from other counties is that the Constitution (2010) guarantees all Kenyans mobility across the country. Similarly, they cannot be excluded from the use of the waters of the Tana River, which is a national resource.
- The second clause encourages the establishment of a Grazing Permit Committee for every ward to be in charge of regulating livestock movement and grazing within the county. The functions of the Committee include “issuance of grazing permits; receive and process applications for grazing permits; oversee the collection and remittance of any fees issued in connection or contiguous to the use and transit through grazing areas; manage all records on permits issued in their respective areas of jurisdiction; maintain an up to date database or inventory of all its activities; and perform any other function that may be assigned to it by legislation” (p 16). This clause will restrict livestock movement within the county and will doubtless cause conflict between pastoralists and the county administration. Mobility is being framed in this way to safeguard the water and pasture resources of the county and to minimise conflict between communities.

In an important consideration for understanding the link between climate change and adaptation, Schade (2016) states that environmental migration is strongly linked to land issues for three main reasons:

- 1) environmental and climate change reduces the amount of habitable land;
- 2) more land is needed to accommodate those who leave such areas;
- 3) land policies are decisive factors in determining people’s resilience at places of origin, as well as successful establishment at destinations.

The question of land is significant in Tana River County, where pastoralist communities, such as the Orma and Wardey, live with and migrate to land belonging to farming communities, such as the Pokomo. Often migration is constrained by farming activities and a lack of policies governing land use. Paying attention to ownership of land is key in formulating policies and laws regarding migration and its links to environmental and climate change.

7 Conclusion and policy implications

The fieldwork conducted in Tana River County for this study clearly demonstrates the importance of mobility in adaptation to climate change. The ability to be able to sustain historical routes, as well as to negotiate changes in those movements to allow for fluctuations in rainfall and availability of pasture and agricultural land is key to the survival of people living in the county, as well as of those who increasingly depend on the delta to support themselves and their herds during times of drought.

However, as the policy analysis in this report shows, no strong link in policy and legislation between human mobility and environmental change has yet been made. This is curious, since it is clear that mobility is one of the main ways that people respond to changes in the environment. What is needed is much more integration of policy on climate change and resilience with that on population movement. A key question for policy makers, legislators and assistance programmers should be:

In what ways might shifting perspectives on and understandings of the impact of environmental change on migration and adaptation be used to inform more appropriate policy that follows closely the lived experiences of the region's populations?

One of the ways this study has attempted to identify gaps in policy – and ways of closing those gaps – is by demonstrating that mobility and migration in Tana River County are being undertaken to minimise the effects of environmental change on the livelihoods of pastoral communities. This is evident in the fact that pastoral communities migrate in large numbers to the delta not only from within the county, but also from neighbouring counties. In many instances, it has been demonstrated that the movement of pastoral communities to the pasture-rich delta area minimises livestock deaths and salvages the livelihoods of thousands of households who depend on mobile pastoralism.

Despite the lack of explicit mention of, and engagement with, mobility and migration in law and policy, there are some reasons to be optimistic. There is a growing awareness that mobility is key to pastoral survival in Tana River County. The county, security officials and humanitarian community are beginning to acknowledge that environmental change-related migration within the county and into it from neighbouring counties are important features of social and economic life. This understanding may be reinforced to lead to more appropriate policy measures that follow closely the lived experiences of the county's populations.

Based on the findings of this research, the following policy recommendations are proposed:

1. Local development policies should address and facilitate mobility within Tana River County in such a way that existing livestock migratory routes are not affected by the establishment of settlements or farms.
2. County government, with the support of the national government and international development organisations, should support the restoration of livestock corridors to riverine areas in the delta that have always been important dry-season grazing areas for pastoralists.
3. Peace committees should be organised and supported to minimise conflict and work towards peaceful coexistence between migratory and host communities.
4. Mechanisms of inter-county cooperation should be facilitated – as a result of the massive influx of livestock and herders from neighbouring counties (and countries) into Tana River County, security measures must be instituted with an inter-county perspective or the involvement of the central government, in order to regulate the movement of people and livestock, especially during times of protracted droughts.
5. Supported herd destocking should be carried out at the beginning of a drought crisis before it becomes an emergency, through livestock purchase schemes so that pastoralists can derive some financial benefit from reducing the size of their herds before they are too emaciated and lose all their value; this can be paired with sustainable herd restocking once the drought has passed.
6. Climate finance could provide important support to Tana River County; there is a need for local county and national government to build the capacity to apply for and access climate funds and technical support. The new Loss and Damage Fund, created at the COP27 conference, as well as the Santiago Network, could provide important resources in this regard to help communities respond to the impact of increasing aridity associated with climate change.
7. The Tana River County administration and the national government should endeavour to integrate pastoral migration into the policy processes of climate change, disaster risk reduction, adaptation and security.
8. In addition, it is essential to ensure that migration and mobility policy processes address the dynamics of increasing vulnerability that are being accelerated by climate change, and conversely that development policy more broadly encompasses the mobility and migration generated in response to the effects of the climate crisis as felt in Tana River County.

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