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The Contribution of Resource Conflict to Food Insecurity in the Kerio River Basin

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Abstract
This study sought to determine the contribution of resource conflict to food insecurity in the region. With Northern Kerio Valley as the study site, Kolowa Ward of Tiaty in Baringo County, Endo Ward of Elgeyo Marakwet County, and Lomut Ward of West Pokot County are considered. The study comprised a target population of 2600 households in the three Wards from which a sample size of 387 was drawn using Yamane (1967) sample size determination formula. Quantitative data was collected through a questionnaire, while secondary and qualitative data was collected through Key Informants Interviews (KIIs) and Focused Group Discussions (FGDs). The study established that the majority of the households representing 60 per cent had experienced three or more inter-ethnic conflicts in the last five years, with another 60 per cent reporting a severe impact on access to food and livelihoods as a result of the conflicts. The study concluded that inter-ethnic conflicts are one of the major drivers of food insecurity in the Kerio Basin and therefore recommended that there is a need to pay more attention to socioeconomic resilience and transformation in the region. Arguably, measures would be adopted to address the core (fundamental) drivers of the conflicts, namely limited formal and functional education, limited occupations (around agro-pastoralism), severe poverty, and severe cycles of droughts.

Key terms: Agricultural production, droughts, food insecurity, inter-ethnic conflicts, poverty.

INTRODUCTION

Changes in the availability of water and temperatures directly influence agricultural production, which ultimately will lead to reduced socioeconomic resilience, reduced availability of food, and food insecurity (Egidi et al., 2020; Shaw et al., 2020; Giacometti et al., 2019). A wide range of processes has continued to contribute to food insecurity in East and the Horn of Africa, including rapid population growth, drought, open land resource access, environmental degradation, poverty, conflict, and low agricultural development. Principal drivers have been considered as; rapid population growth and related demographics, environmental variability, particularly agro-ecological zones and drought, both of which trigger other processes that include competition, conflicts, low agricultural development, and poverty (FAO et al., 2017; FAO, 2018; Holleman et al., 2017).

Food insecurity has received sustained attention in the last seventy-six (76) years. In 1945 Food and Agricultural Organization (FAO) reported that there was a global shortage of food in which at least one-third of the world population was not getting adequate macronutrients or calories (Simon, 2012; Shaw, 2007). Following a series of concerns on food deficiency, health, and well-being of the people, the right to food was incorporated in the 1948 Universal Declaration of Human Rights (UDHR) being part of the right to a sufficient living standard and was also incorporated in the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR).

Food insecurity has been a long-standing challenge in Kenya. Most of those who experience food insecurity in Kenya live in arid and semi-arid regions. However, the vulnerability of the community agro-pastoral production to environmental variability and related inter-ethnic resource conflicts, which increases vulnerability to food insecurity, poverty and social deprivation, has been given little attention. It will be noted that virtually all semi-arid regions in SSA, EHOA and Northern Kenya, including Kerio Basin, continue to be characterised by vulnerable agro-pastoral production, and its production capacity continues to be severely compromised by increased environmental variability and related inter-ethnic resource conflicts. Developed against this backdrop, this study sought to determine the contribution of resource conflicts to food insecurity in the Kerio Valley Basin.

LITERATURE REVIEW

Resource conflicts, particularly inter-ethnic conflicts, have been associated with chronic food insecurity, poverty, displacement, poor health outcomes, loss of livelihoods, and even loss of lives (FAO et al., 2018; Baliki et al., 2018; UNHCR, 2018). Conflict has been defined as contestation because of different views, beliefs, goals, interests, worldviews, or increasingly limited resources (Massey & Miller, 2018).

Specifically, inter-ethnic resource conflict (IERC) refers to contestation by different ethnic groups over resources, particularly over increasingly scarce resources, which in most cases may include land, water, pasture, and livestock production, arable or potential land for crop production, minerals, and related resources (Gurr et al., 2005; Massey & Miller, 2018). Dal Bo and Dal Bo (2011) maintained a view that conflict over the distribution of resources and inequality has been one of the enduring aspects of human existence; and one, which has been witnessed throughout various historical times.

Key authorities maintain a view that conflict becomes an issue of concern once violence is adopted to enforce disputed views, goals, interests, and/or deprivation (Gurr et al., 2005). Among the indicators of the violent conflict that have been adopted by various authorities and studies include: murder (or homicide) rate per 10,000 (or 100,000) has typically been used as a proxy to assess levels of violent crime or even overall crime; battle or invasion deaths (determined by 25 annual deaths on the lower threshold and 1,000 annual death on a higher threshold; indirect deaths largely by lack of access to food, health services and/or destruction of property or environment, which have been reported to account for up to 90 per cent of the conflicts related deaths (Gurr et al., 2005); displacements and refugees; destruction of property, physical facilities and environment; and the cost of conflicts.

In addition, Gurr et al. (2000) established an index (equivalent to Richter scale for Earthquakes) to gauge the magnitude, severity, and destruction of the global internal conflicts, which consisted of loss of human

resources; direct and indirect deaths; population displacement- including forcibly and internally displaced persons and related costs; destruction of individual and household networks –including personal relations; environmental destruction –direct and indirect destruction of the local ecosystems, degradation, pollution, and toxic substances; damage of infrastructure and diversion of resources; and depletion of resources necessary to support livelihood and erode access to basic needs.

The index and related severity levels by Marshall were subsequently used to re-assessed conflicts from 1945 to 1999 and led to the observation that the episodes of internal conflicts accelerated from the 1950s and reached their peak by the early 1990s. The re-assessment study also indicated by 1950, 10 per cent of the states were witnessing internal conflicts; by 1970, 20 per cent of the states were witnessing internal conflicts; and by 1991, 33 per cent of the states had internal conflicts (Gurr et al., 2000). Part of the increases was witnessed in large and heterogeneous states that included Burma, India and Indonesia. By 2001, conflicts had displaced more than 12 million refugees, 25 million internally displaced people (IDPs), and an unknown number of people trapped in combat zones (FAO, 2002). Even as early as the 1990s, over 30 million people were displaced every year in more than 60 countries by conflicts or had their livelihoods destroyed (WFP, 2011).

According to the World Bank (2017), conflicts increased globally by an average of 2.4 per cent between 2008 and 2015, in which out of 162 countries, 86 (53%) witnessed increased conflicts. The Global Peace Index Report also indicated that although both external and internal conflicts tended to have increased in various parts of the world, internal conflicts increased steadily from 2010 by an average of 4 per cent to 2015 (World Bank, 2017).

In 2019, insecurity and conflict were among the leading causes of food crises around the world. Similarly, economic shocks and weather extremes have contributed significantly to food insecurity. For instance, 50 per cent of the 77 million who were experiencing acute food insecurity in 2018 were from countries that were also experiencing conflict, including the Middle East, Asia, and Africa. In addition, it has also been discovered that high levels of acute food insecurity continued to increase in areas where regional crises persisted, particularly in Central Sahel and the Lake Chad Basin (FAO, 2018).

However, over 70 per cent of the people with inadequate access to food lived in countries (or zones) characterized by conflicts (FAO et al., 2017, 2018; Uvin, 1996; World Bank 2010). These authors maintained a view that, typically, conflicts reduced the availability, access, and utilization of food; and subsequently led to greater inequalities, poverty, greater infant mortalities, and declining per capita incomes. Further, Conflicts destroyed social and biological resources, water, and land for food production. All nineteen (19) countries classified by FAO as under "chronic food deficient" in 2017 were engaged in protracted violent conflict at that time (FAO et al., 2017). Further, conflict and insecurity continued to be the primary drivers of food insecurity in 18 countries, where almost 74 million food-insecure people remained in need of urgent assistance (FAO et al., 2018; FSIN, 2018).

FINDINGS AND DISCUSSION

Effects of Conflict on Food Insecurity

The fourth objective of the study was to examine the effects of conflicts on food insecurity in the Lower Kerio Valley. Similarly, this objective was assessed through two key indicators, namely access to food and maintenance of required nutrition. To assess this objective, four approaches were adopted, namely 1) rating of the experience (intensity) of the inter-ethnic conflicts; 2) rating effects (impact) of inter-ethnic conflicts on access to (or availability) of food; 3) regression analysis to assess the effects of inter-ethnic conflicts on access to food and to assess the hypothesis that those conflicts contributed (disrupted) to inadequate access to (or availability of) food in the Lower Kerio Basin; 4) regression analysis to assess the effects of inter-ethnic conflicts on maintenance of required nutrition and to assess the hypothesis that those conflicts contributed (disrupted) to inadequate maintenance of required nutrition in the Lower Kerio Basin.

Experience of Inter-Ethnic Conflicts

Available reports indicated that Northern Kenya, including Kerio Valley, witnessed an average of three inter-ethnic conflicts in a year (Elfversson, 2019; Opiyo

et al., 2012; Rohwerder, 2015). The study assessed the experience of inter-ethnic conflicts, and responses are presented in table 1 below. Responses indicated that 78.4 per cent of the households had experienced inter-ethnic conflicts in the last five (5) years, which 40 per cent had experienced inter-ethnic conflicts three times in the last five, and 20.3 per cent had experienced inter-ethnic conflicts four to five times in the last five (5) years.

Table 1: Experience of Inter-Ethnic Conflicts in the Last 5 Years

	Frequency	Per cent
Never	76	21.5
One or two incidences	66	18.6
Three incidences	140	39.5
Four incidences	43	12.1
Every year	29	8.2
Total	**354**	**100.0**

Experts, key informants, and FGD indicated that inter-ethnic conflicts were frequent and increased during the dry season. These sources gave examples of areas where schools and trading centres had been closed because of the frequency and devastation of the inter-ethnic conflicts.

The Intensity of Inter-Ethnic Conflicts by Wards

Studies reported that the intensity of inter-ethnic conflicts (IIEC) had not been across all the borders and adjacent areas (Elfversson, 2019; Opiyo et al., 2012; Rohwerder, 2015). These sources have maintained that the intensity of the IIEC had tended to vary with scarcity and/or availability of resources. The same studies emphasized that IIEC has been driven by local processes that included cattle raiding, local resources, boundary disputes, and election of community representatives, among others.

From the varied IIEC and accompanying resources, the study used the average occurrences to assess the intensity of inter-ethnic conflicts by Wards in the triangle border. Results are summarised in table 2. While the overall average intensity was 2.67, the average intensity in Endo was 3.73, and 2.75 in Kolowa. In other words, the intensity of the inter-ethnic conflicts was higher in Endo ward of Marakwet County, followed by Kolowa ward in Tiaty of Baringo County.

Table 2: The Intensity of Inter-Ethnic Conflicts in the Last 5 Years

Wards	N	Average Intensity (1 to 4)	Std. Deviation	Range
Endo	118	3.73	.921	3
Kolowa	118	2.75	.470	3
Lomut	118	1.53	.813	4
Total	**354**	**2.67**	**1.179**	**4**

To assess the intensity of the inter-ethnic conflicts within each of the three wards; the study cross-tabulated the intensity of the inter-ethnic conflicts and the three Wards comprising Endo, Kolowa, and Lomut; which represented the neighbouring communities and hosted some of the critical resources. The results of the cross-tabulation are summarised in table 3 below. In this respect, the cross-tabulation indicated that 68 per cent of the households in Endo had experienced 3 to 4 inter-ethnic conflicts, 75 per cent in Kolowa had experienced 3 to 4 inter-ethnic conflicts, and 64 per cent of the households in Lomut had experienced one to two the inter-ethnic conflicts. With these outcomes, the study concluded that the intensity of the inter-ethnic conflicts was greater in Endo and Kolowa. In other words, while Lomut of West Pokot had lower intensity, Endo of Marakwet County and Kolowa of Tiaty (Baringo County) had relatively greater intensity of the inter-ethnic conflicts.

More so, correlation ratio (ETA) was used once again to assess the influence of the Wards on the intensity of the inter-ethnic conflicts; and Chi-Square was used as the test of significance (or to rule out effects arising from chance or error). This was mainly because the experience of inter-ethnic conflict was categorised on a scale of 1 to 5, and the Wards were discrete and mutually exclusive.

Table 3: Experience on Inter-Ethnic Conflicts by Wards in Kerio Valley

	(1) Endo	(2) Kolowa	(3) Lomut	Total
Never	0 0%	1 8%	1 1.7%	29 08%
Once or Twice	10 8.5%	1 0.8%	2 1.7%	113 32.0%
Three times	40 33.9%	88 74.6%	12 10.2%	140 39.5%
Four times	40 33.9%	28 22%	75 63.6%	43 12.1%
Every year	28 23.7%	0 0%	28 23.7%	29 8.2%
Total	**118** **(100)**	**118** **(100)**	**118** **(100)**	**354** **(100)**

Accordingly, the correlation ratio, Eta=0.71, and Eta^2 = 51 in Table 4.2 indicated that 51 per cent of the intensity of inter-ethnic conflicts was influenced (determined, driven) by the Wards in the Lower Kerio Valley. The regression coefficients and the value of the Chi-Square were accompanied by the probability of error less than 0.001 (P<0.001), which indicated that such influence would not have arisen by chance and was much lower than the study criteria of P<0.05. With the accompanying probability of error, the working hypothesis was sustained. Accordingly, the study concluded that 51 per cent of the intensity of inter-ethnic conflicts was influenced (determined, driven) by the Wards in the Lower Kerio Valley.

The Severity of the Inter-Ethnic Conflicts

Existing reports indicated that Northern Kenya, including Kerio Valley, had continued to witness a wide range of conflicts, from low levels of conflicts with limited impact to intensive raids with severe impact (Elfversson, 2019; KNCHR, 2014; Krätli & Swift, 1999; Rohwerder, 2015). These sources showed that in extreme situations, the goal of the raids had been to kill the enemies and take away as many livestock as possible, and where possible, boys and girls became targets. Due to such impacts, the study assessed experiences of the household severity of the inter-ethnic conflicts, and responses are summarised in table 4. Responses indicated that 78 per cent of the households experienced varied severity of inter-ethnic conflicts, in which 44 per cent experienced a severe impact, 17 per cent experienced a substantial impact, and 17 per cent experienced a mild impact.

Table 4: The Severity of Inter-Ethnic Conflicts of Food Security

Severity	Frequency	Per cent
No impact	74	20.1
Negligible impact	7	1.9
Mild impact	62	16.8
Substantial impact	64	17.3
Severe impact	162	43.9
Total	**369**	**100.0**

The same sources indicated that large-scale raids had been associated with covariate risk, i.e., raids affecting everyone in a particular area at once. Consequently, raids induced a reduction of household livestock and land under cultivation, which in turn reduced the availability of food and income sources. Accordingly, repeated large-scale raids among the pastoralist and agro-pastoralists have been associated with poverty, destitution, and food insecurity.

The Severity of Inter-Ethnic Conflicts by Wards

To assess the severity of the inter-ethnic conflicts within each of the three wards, the study carried out a cross-tabulation between the severity of the inter-ethnic conflicts and the Wards. The data from the cross-tabulation are summarised in table 5.

Table 5: Experience of the Severity of Inter-Ethnic Food Security by Wards

Severity	(1) Endo	(2) Kolowa	(3) Lomut	Total
No impact	0 0%	0 0%	2 1.7%	30 08%
Negligible impact	4 3.0%	1 0.8%	6 5%	7 1.9%
Mild impact	32 24.2%	0 0%	7 5.9%	106 29%
Substantial impact	32 24.2%	25 21.2%	30 25.2%	64 17.3%
Severe impact	64 48.5%	92 78.0%	74 62.2%	162 43.9%
Total	**132 (100%)**	**118 (100%)**	**119 (100%)**	**369 (100%)**

The data from the cross-tabulation revealed that while 62 per cent of the households in Lomut in West Pokot experienced a mild impact, 48 per cent of the households in Endo in Marakwet County experienced a severe impact, and 78 per cent of the households in Kolowa in Tiaty (Baringo County) experienced severe impact. Again, the distribution of the severity (impact) was accompanied by Eta=0.73 and Eta^2 (square) =0.53, indicating that 53 per cent of the severity of the inter-ethnic conflicts was the influence of the Wards. These outcomes were accompanied by the probability of error less than 0.0001 (P<0.0001), which indicated that such influence could not have arisen by chance.

Effects of Conflicts on Access to Food

Regression analysis was used to assess the impacts of inter-ethnic conflicts on access or availability of food and to assess the hypothesis that inter-ethnic conflicts had disrupted (reduced) access to (or availability of) food in the Kerio basin. The working hypothesis (H_1) was that inter-ethnic conflicts had disrupted access to (or availability of) food in the Lower Kerio Basin; against the null hypothesis (H_0) was that inter-ethnic conflicts had not disrupted access to (or availability of) food in the Lower Kerio Basin; except for random error.

In this respect, adequate access to food by the household was the dependent variable, and frequency of inter-ethnic conflicts was the independent variable, both of which were assessed on a scale of 1 to 5. Part of the regression results for adequate access to food and experience of inter-ethnic conflict are summarised in table 6.

Table 6: Effects of Inter-Ethnic Conflict on Access to Food

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	82.8	1	82.8	91.9	.000
Residual	312.4	347	0.90		
Total	**395.2**	**348**			

Regression coefficients R =0.46 and R^2 (squared) =0.21; showed 21 per cent of the reduced access to food was influenced (contributed) by inter-ethnic conflicts. The regression coefficients and the value of F were accompanied by the probability of error less than 0.0001 (P<0.0001), which indicated that those coefficients and related values could not have arisen (occurred) by chance. Consequently, the null hypothesis was rejected, and the working hypothesis was sustained. With these outcomes, the study concluded that 21 per cent of the deficiency in access or availability of food in the Lower Kerio Basin was driven (determined) by the cycles of inter-ethnic conflicts.

It was reported that during inter-ethnic conflicts, access and/or availability of foods were interrupted (or affected) in a few ways. In most of the incidents, livestock was the target and, therefore, either stolen (raided) or reduced; cultivations were suspended, delayed, or abandoned altogether. In some cases, the human population was displaced temporarily and/or permanently.

Effects of Conflicts on Required Nutrition

Similarly, regression analysis was used to assess the effects of inter-ethnic conflicts on required nutrition and to assess the hypothesis that inter-ethnic conflicts had disrupted (reduced) the maintenance of required nutrition in the Kerio basin. More specifically, the working hypothesis (H_1) was that inter-ethnic conflicts had disrupted the maintenance of required nutrition in the Lower Kerio Basin; against the null hypothesis (H_0) was that inter-ethnic conflicts had not disrupted the maintenance of required nutrition in the Lower Kerio Basin; except for random error.

In this respect, maintenance of required nutrition was the dependent variable, and frequency of inter-ethnic conflicts was the independent variable, both of which were assessed on a scale of 1 to 5. Results are summarised in table 7. Accordingly, regression coefficients R= 0.48 and R^2 (squared) =0.23; indicated that 23 per cent of the reduction in maintenance of required nutrition was influenced (contributed) by inter-ethnic conflicts. In other words, 23 per cent of the deficiency in required nutrition in Kerio basic was influenced (contributed) by inter-ethnic conflicts.

Table 7: Effects of Inter-Ethnic Conflict on Maintenance of Required Nutrition

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	93.8	1	93.8	104.2	.000
Residual	312.4	347	0.90		
Total	**406.2**	**348**			

Regression coefficients and the value of F were accompanied by the probability of error less than 0.0001 (P<0.0001), which indicated that those coefficients and related values could not have arisen (occurred) by chance. Accordingly, the null hypothesis was rejected, and the working hypothesis was sustained. Because of these outcomes, the study concluded that 23 per cent of the deficiency in the maintenance of required nutrition in the Lower Kerio Basin was driven (determined) by the cycles of inter-ethnic conflicts.

Most Severe Years of Inter-Ethnic Conflicts

In addition, the study requested households to indicate the most severe year in the inter-ethnic conflicts. Responses are presented in Table 8. Correspondingly, 87 per cent of the households experienced inter-ethnic conflict in three years,

namely 2016, 2017, and 2018, in which 43 per cent experienced the most severe inter-ethnic conflict in 2017, and 25 per cent experienced the most severe inter-ethnic conflict in 2016.

Table 8: Most Severe Years of Inter-Ethnic Conflicts

Year	Frequency	Per cent
2014	7	02
2015	21	06
2016	94	25
2017	161	43
2018	70	19
2019	21	06
Total	**374**	**100**

It was interesting to observe that the years of the severe drought and the years of the severe inter-ethnic conflicts were essentially the same. Indeed, several studies made a similar conclusion that the periods of severe drought had been the same period of severe conflicts (Elfversson, 2019; KNCHR, 2014; Krätli & Swift, 1999; Rohwerder, 2015). Generally, the study addressed the objective that sought to examine the contribution of conflicts to food insecurity in the Lower Kerio Valley basin. Accordingly, it was established that 78.4 per cent of the households had experienced inter-ethnic conflicts in the last five (5) years; which 40 per cent had experienced inter-ethnic conflicts three times in the last five, and 20.3 per cent had experienced inter-ethnic conflicts four to five times in the last five (5) years.

The study further revealed that the intensity of inter-ethnic conflicts (IIEC) was not equal across the three (3) Wards. With an overall average intensity of 2.67, the average intensity in Endo was 3.73 and in Kolowa was 2.75, which indicated that the intensity of the inter-ethnic conflicts has been higher in Endo Ward of the Marakwet County, followed by Kolowa Ward in Tiaty of the Baringo County. Use of cross-tabulation analysis indicated that 68 per cent of the households in Endo had experienced 3 to 4 inter-ethnic conflicts, 75 per cent in Kolowa had experienced 3 to 4 inter-ethnic conflicts, and 64 per cent of the households in Lomut had experienced 1 to 2 of the inter-ethnic conflicts. With the use of correlation ratio (ETA^2), the study established that 51 per cent of the intensity of inter-ethnic conflicts was influenced (determined, driven) by the Wards in the Lower Kerio Valley; and was significant at the probability of error less than 0.001 ($P<0.001$). With these observations, the study concluded that Endo and Kolowa carried the larger burden of inter-ethnic conflicts.

The severity of the inter-ethnic conflicts followed a similar pattern to the intensity of the inter-ethnic conflicts. The study established that 78 per cent of the households experienced varied severity of inter-ethnic conflicts, in which 44 per cent experienced a severe impact, 17 per cent experienced a substantial impact, and 17 per cent experienced a mild impact. Use of the cross-tabulation indicated that 62 per cent of the households in Lomut of West Pokot experienced a mild impact, 48 per cent of the households in Endo of Marakwet County experienced a severe impact, while 78 per cent of the households in Kolowa in Tiaty (Baringo County) experienced severe impact. With the use of correlation ratio (ETA^2), the study established that 53 per cent of the severity of the inter-ethnic conflicts was the influence of the Wards which was significant at the probability of error less than 0.0001 ($P<0.0001$).

With the use of regression, the study established that 21 per cent of the reduced access to food was influenced (contributed) by inter-ethnic conflicts; and those effects were significant at the probability of error less than 0.0001 ($P<0.0001$), which indicated that those coefficients and related values could not have arisen (occurred) by chance. In addition, the study established that 23 per cent of the reduction in maintenance of required nutrition was influenced (contributed) by inter-ethnic conflicts; and those

effects were also significant at the probability of error less than 0.0001 (P<0.0001). Given these observations, the study concluded that 21 per cent to 23 per cent of the food insecurity was determined by the cycles of the inter-ethnic conflicts in the Lower Kerio Valley Basin.

The study revealed that 87 per cent of the households experienced inter-ethnic conflict in three years, namely 2016, 2017, and 2018, in which 43 per cent experienced the most severe inter-ethnic conflict in 2017, and 25 per cent experienced the most severe inter-ethnic conflict in 2016. It was interesting to observe that the years of the severe drought and the years of the severe inter-ethnic conflicts were essentially the same.

CONCLUSION AND RECOMMENDATIONS

Conclusion: The study concludes that the burden of inter-ethnic conflicts was higher in Endo and Kolowa and relatively limited in Lomut. Indeed, 68 per cent of the households in Endo had experienced 3 to 4 inter-ethnic conflicts, 75 per cent in Kolowa had experienced 3 to 4 inter-ethnic conflicts, and 64 per cent of the households in Lomut had experienced one to two of the inter-ethnic conflicts. The study also concluded that 51 per cent of the intensity of inter-ethnic conflicts was influenced (determined, driven) by the Wards in the Lower Kerio Valley. Severity was the same 53 per cent of the severity of the inter-ethnic conflicts was the influence of the Wards. The study concluded that 21 per cent to 23 per cent of the food insecurity was determined by the cycles of the inter-ethnic conflicts in the Lower Kerio Basin. The study also concluded that 87 per cent of the households experienced inter-ethnic conflict in three years, namely 2016, 2017, and 2018.

Recommendations: The effects of the conflicts were mediated (triggered, precipitated) by other processes that included limited formal and functional education, limited occupations (largely around agro-pastoralism), severe poverty, and severe cycles of droughts. Accordingly, the study recommended that measures would be adopted to address the core (fundamental) drivers of the conflicts, namely limited formal and functional education, limited occupations (around agro-pastoralism), severe poverty, and severe cycles of droughts. Once the core drivers had been addressed, residual effects of the conflicts could be addressed by the envisaged cross-border agro-pastoral industries spearheaded by the three county governments and regional development organizations such as Kerio Valley Development Authority in conjunction with the national government through the ministries of agriculture and environment.

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