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# Influence of Ethnic Conflicts on Occupational Structure among Households in Tana Delta Sub-County, Tana River County, Kenya

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### **Abstract**

Globally ethnic conflicts are a familiar scene with 1.5 billion people living in conflict-affected countries. Ethnic conflicts manifest in different ways including; ethnic killings and a lack of social cohesion. The African continent experiences 30% of the conflicts in the world, with Kenya being one of the African countries with high conflict incidences. In 2017, 21.4% of the population experienced conflict with Tana delta, a Sub-county in Tana River County experiencing most of the ethnic conflicts. The purpose of the study was to determine the influence of ethnic conflicts on occupational structure in the Tana delta sub-county. The study employed a cross-sectional survey design and data was collected from the sub-county from a sample of 120 household heads. Stratified proportionate and simple random sampling techniques were used to select the 120 participants across the 17 locations in the subcounty. A researcher-administered semi-structured questionnaire was used to collect both qualitative and quantitative data. Data was analysed by running both descriptive and inferential tests statistics. Descriptive tests run included percentages, means, and frequencies were used to provide facts while a partial correlation was run to support making the inferences. This study established a partial correlation coefficient of -.314 with p < 0.001. This indicated a moderate relationship and statistical significance between ethnic conflicts and occupational structure. Therefore the null hypothesis that ethnic conflicts have no statistically significant influence on occupational structure in the Tana Delta sub-county was rejected. This means ethnic conflicts influence the occupational structure of the Tana delta sub-county. In addition, the correlation coefficient of -.314 means that, as the number of ethnic conflicts increases the occupation structure is negatively affected and vice versa. This means with the increase in conflict incidences, the affected area cannot transition its economy from primary to manufacturing and tertiary levels of development. These findings may be useful to peace actors in the sub-county including the county and national government, and faith-based and non-governmental organizations in designing peace-building interventions towards an improved occupation profile.

Keywords: Ethnic conflict; influence; monetary poverty; occupational structure

### 1. Introduction

According to the Armed Conflict Location & Event Data Project (ACLED), (2017), globally, an estimated 1.5 billion people live in conflict-affected countries. Schafer (2019) opines that a third (2 billion) of the world's population bears the brunt of conflicts. The cost of these conflicts in monetary terms is estimated at \$13.6 trillion every year; threatening nations' and global development agendas. A controversy though exists on whether the conflicts are decreasing or changing forms so that they cannot be identified with ease (Schafer, 2019). According to Szayna et al (2018), there is a decline in both interstate and intrastate conflicts, however, some forms of intrastate conflicts particularly ethnic conflict, have generally been increasing in recent years.

The African continent suffers 30% of the conflicts being experienced in the world (Armed Conflict Dataset (ACLED), 2019). Africa consistently suffers largest from the non-state conflicts. Non-state conflicts have neither of the parties being the state, they are perpetrated by civilian groups (Cilliers, 2018). The number of these types of



conflicts is on the rise in Africa with the year 2017 recording the highest number (50) since 2011 when the number (24) was the lowest. Additionally, the battle deaths doubled hitting 4,300 in 2017 (Bakken & Rustad, 2018).

According to Cilliers (2018), most of the civilian groups or community violence has been over resources including water, land, and other scarce resources. The scarcity and competition stem from high levels of poverty, poor governance, and external factors.

Conflicts have been associated with enormous effects on the economy and economic development. These include loss of lives, and properties including social infrastructures such as schools and hospitals (Ngozi, 2015; Kivoto, 2015). Ngozi (2015) notes that the conflict ranges affect both the level of economic activities as well as composition, this has a direct implication on the economic structure of the conflict-prone area. Additionally, the Gross Domestic Product (GDP) of the conflict-affected area is likely to decline at an annual rate of 22.2%. For instance, in Ghana, a postmortem evaluation of Nawuri-Gonja wars losses in monetary terms was established to be six hundred thousand Ghana Cedis (GH 600,000.00) an equivalent of three hundred thousand dollars (\$300,000) (exchange rates of 1994) (Emmanuel et al., 20216). Although the amounts may not be so huge for this particular scenario, in every poor region every shilling counts since instead of being used in war or conflicts, it could go to improving infrastructures and social amenities for the improvement of livelihoods.

Kenya is one of the most violent countries in Africa. In 2013, Kenya was ranked 7th most violent country, recording 3,500 politically violent events between 1997 and September 2013 with the 12th highest rate of reported fatalities associated with political violence, at over 7,200 (Dowd & Raleigh, 2013). Major types of violent events in Kenya include terror attacks, inter-community conflicts, and violence targeting law enforcement officers as well as extrajudicial executions (Dowd & Raleigh, 2013; Kenya National Human Rights Commission (KNHRC), 2014). Out of all types of violent events, Kenya leads in communal violence by continental standards. Consequently, the most active violent actor in Kenya is the communal militias participating in 29.5% of all recorded violent events in Kenya. According to Vannice (2017), communal contests have increased in several regions in Kenya including the eastern and southeast counties of Kenya (Baringo, Laikipia, Narok). This report quoted competition over resources and political tension as the causes of these inter-community conflicts. Additionally, Kagwiria Mbogori (KNHRC Chairperson) in Daily Nation Monday 26 November 2017 opined that the conflicts between herders (Orma) and farmers (Pokomo) are on the rise in the Tana delta sub-county quoting political' incitement, division of the communities on ethnic, religious and clan basis, and poor handling of complaints of land disputes by police officers and local administrators as the causes of the violence.

The occupational structure of a region refers to the distribution of its labour force in different occupations (Divisha, 2016). In this regard, a region is classified as economically developed with respect to the proportions of their total labour force (population) working in sectors of the economy which are primary, secondary and tertiary. The *primary* sector includes agriculture, animal husbandry, forestry, fishery and mining; the *secondary* sector comprises manufacturing of every type and the *tertiary* sector consists of services such as transport, trade, government, communication, banking and finance, insurance among others. Divisha (2016) illustrates how occupational labour and resources shift, that is, as the national income increases, basic necessities of life are met and occupational labour and resources shift into manufacturing or secondary production. As the national income increases further and the market for manufactured goods become saturated, labour and other resources shift into the service or tertiary sector.

The higher GDP is associated with tertiary level as most economists associate low economic development with subsistence activities mainly agriculture. This is in agreement with Rostows' linear model of economic development where areas with low economic development only produce for subsistence consumption and not trading; a large labour force is engaged in agriculture (Divisha, 2016; Gumbis, 2009; Mehta, n.d.). This is in line with the past work of Stockwell (1960) who argued that underdeveloped regions were identified with agricultural sector employing a large population of labour force. In regard to occurrence of conflicts, there is a negative correlation between conflict and improvement or advancement of occupational structure.

A study on Nicaragua and Costa Rica (Chauvin and Rohner, 2009) established that conflicts have adverse effects on industries that; require good institutions, are labour intensive, need external financing and export an important part of their production. The study concluded that, primary sector is affected by conflict which leads to overexploitation



of resources with forestry being overexploited while crop farming one of the major activities of developing world being reduced since it requires an investment that takes some time to mature.

In Kenya, the occupation structures of several regions were affected during ethnic conflict periods. For instance, economic activities in the Rift Valley region, especially in the primary sector, were adversely affected by the ethnic conflicts between Kikuyus and Kalenjins during the 2007/2008 Post Election Violence. Many farmers who depended on agriculture could not produce crops due to fear for their safety (Kivoto, 2014). In addition, ethnic conflicts between Turkana and Pokot have affected livestock production translating to food insecurity and consequently malnutrition (Chebunet et al., 2013).

Generally, conflict affects all sectors of production, but in varying magnitude. It leads to the unavailability of the infrastructure and financial capital required to grow cash crops and also reduces the planning horizon making many farmers focus only on subsistence agriculture (Chauvin & Rohner, 2009; Kimenyi et.al., 2014). Therefore, the manufacturing industry is the most directly affected because conflicts affect prices and availability of inputs required in manufacturing industries, and also physical, human, and financial capital which are critical in the manufacturing industry are affected. The service sector which involves the exportation of goods and services is also affected by conflict since it also requires advanced infrastructure and financing which are often affected by conflicts (Chauvin & Rohner, 2009). This means that occupational structure and economic activities of different regions are influenced by conflicts in varying degrees and ways, with some sectors suffering more or less than others. Mehta, (n.d.), Chauvin and Rohner, (2009), Divisha, (2016); Kimenyi et al.(2014); opine that occupational structure and advancements are influenced by conflict. According to Mehta (n.d) and Gumbis' (2009), economically underdeveloped areas of the world are characterized by an agricultural economic base with the vast majority of the economically active population being self-employed in subsistent agricultural pursuits.

Even though conflicts generally have implications on various aspects of development including the economy, there is scanty information on the influence of recurrent ethnic conflicts on occupational structure in the Tana delta subcounty. Therefore this study aimed at determining the influence of ethnic conflicts on occupational structure in the Tana delta sub-county. The findings of the study may be useful to local leaders and government policymakers in the formulation and implementation of policies and measures geared toward maintaining peace and security in the Subcounty. They may also generate information that may be useful to non-governmental organizations in designing and implementing intervention programs targeting the Tana delta Sub-county in a bid to restore the state of normalcy through various peace and conflict mitigation projects. Finally, this study enriches the body of knowledge generated by other researchers in the same field and could also point out other areas for further research.

#### 2. Research Methods

The study employed a cross-sectional survey design and data was collected from the Tana delta sub-county. The target population for this study was 110,640 persons living in Tana Delta Sub-county while the accessible population was 22,791 house heads in the Sub-County. The sample of 120 household heads was drawn from the accessible population of 22,791 households' heads who are residents of Tana delta Sub-County. The sampling frame was the household heads database kept by the chiefs. A sample of 120 household heads was drawn from the sampling frame. Sampling was done in two stages; in stage one, stratified proportionate sampling was used to determine the proportional number of participants to be sampled from each of the 17 locations in the Sub-County. In stage two, simple random sampling was used to sample the required number of household heads from each of the locations. A researcher-administered semi-structured questionnaire was used to collect both qualitative and quantitative data. This instrument allowed the researcher to gather information from many respondents within a shorter period as compared to the time that would have been used in conducting interviews. Before administration of the instrument in the actual data collection exercise, the reliability of the instrument was established using pilot study data which was collected in the Tana North sub-county. Tana North sub-county was chosen for the pilot because it has had similar characteristics to the neighboring study area, the Tana Delta sub-county (Kirchner, 2013; Oduor, 2021). A total of 36 household heads were sampled in the pilot study. The 36 household heads represented 30% of the total study sample size as Johanson & Brooks (2010) and Hertzog (2008) recommend. With this data, a Cronbach alpha reliability coefficient of 0.8 which is above the 0.7 reliability coefficient threshold for a reliable instrument was obtained; hence the instrument was considered reliable (Cortina, 1993).

## 3. Results and Discussions

## 3.1 Ethnic Conflict experienced in Tana Delta Sub County between 2010-2020

Ethnic conflicts were measured in terms of respondents' experience of violent events and the number of times respondents experienced violent events. The results of the analysis are presented in Table I.

Table I
Number of Times the Respondent Experienced Conflict between 2010 and 2020 in Tana Delta Sub County

Number of Times	Frequency	Percent
1.00	24	22.0
2.00	33	30.3
3.00	31	28.4
4.00	5	4.6
5.00	1	.9
8.00	1	.9
10.00	14	12.8
Total	109	100.0

Table I shows that 30.3 % of the respondents had experienced violent events two times between 2010 and 2020, 28.4% thrice, 22.0% once and 12.8% ten times. This data was used in correlating ethnic conflict with the dependent variable (occupation structure) to check if the number of violent events influenced the respondents' score on this variable.

Table II

Years the Respondents Experienced Violent Events in Tana Delta Sub County

Year	Frequency	Percent 39.4	
2013	43		
2017	51	46.8	
2018	3	2.8	
2019	2	1.8	
2020	10	9.2	
Total	109	100.0	

Table II shows that the majority, 46.8% experienced violent events in 2017 and 39.4% in 2013, while 9.2% experienced in 2020, 2.8% in 2018, and 1.8% in 2019. The findings indicate that between the years 2010 and 2020 violent events have been happening in the sub-county and the majority 99.1% of residents have experienced conflict in Tana delta Sub County. These findings agree with Kipkemoi et.al (2017) who in their study of Tana River County found that 55.6% of respondents had experienced conflicts between 2014 and 2010, 21.4% in 2017, and 13.4% in 2016, and 9.4% before 2010. The frequency and interval at which the violent events occur in the sub-county indicate that most of the conflicts happen during or around the electioneering period, that is, 2012/3 and 2017. Therefore, the occurrences could be attributed to political factors. These results are in agreement with Rohwerder (2015) who argues that politicized ethnicity and partisan politics are a major cause of violent events in Kenya. This means that there is a need to tame ethnic politics in a bid to address this social vice.

## 3.2 Disasters experienced by respondents

This section provides information on natural disasters experienced in the sub-county. Given that the sub-county experiences recurrence of disasters (DAO, 2013; Kenya Floods Situation Update, 2019); this variable was treated as a controlling variable in the study. Therefore its effects were statically controlled during the analysis of the influence of the ethnic conflict (independent variable) on the occupation structure in Tana Delta Sub County (dependent variable).

Table III

Disaster Experienced by the Respondents in Tana Delta between 2010 and 2020

Natural disaster experienced	Frequency	Percent
Floods	37	33.9
Drought	11	10.1
Floods and drought	40	36.7
Floods and locust infestation	6	5.5
No disaster experienced	13	11.9
Locust infestation	1	.9
Drought and locust	1	.9
Total	109	100.0

Out of the 109 respondents, a total of 96 indicated that they had experienced at least one disaster between the years 2010 and 2020, while 13 of the respondents indicated that they had no disaster experience, refer to Table 3. The most experienced disasters were floods and drought while the least experienced disaster was locust infestation. Those affected by floods and drought were 36.7%, floods 33.9%, drought 10.1%, floods and locust infestation 5.5%, locust infestation 0.9, locust and drought 0.9% while those who had not experienced any disaster were 11.9%.

## 3.3 Employment status

Table IV

Employment Status of Residents in Tana Delta Sub County

Employment Status	Frequency	Percent
Self employed	105	96.3
Employed	4	3.7
Total	109	100.0

Table IV indicates that 4 (3.7%) out of 109 household heads were employed, that is, they were working for someone, while 105 (96.3%) household heads were self-employed. The findings imply that majority of the people are not formally employed. According to Rohwerder (2014), high levels of insecurity make it difficult to secure external and permanent employment and most of the population end up in self-employment especially in subsistent agricultural activities 85 (81%) and small-scale business ventures 18 (17.7%), refer to Figure 1.

Table V
Employment Type (Tenure of employment) For Respondent in Tana Delta Sub County

Employment by type	Frequency	Percent	
Casual employee	3	99.1	
Fixed term employee	1	.9	
Total	4	100	

Table V indicates that 99.1% (3) of those respondents who were employed worked on a casual basis, while 0.9% (1) were in fixed-term employment. This implies that the majority of the employed residents do not have job security assured hence making them vulnerable to joining or suffering the effects of violent events.



The sector of Working for Self-Employed and Employed respondents 90 Number of people working on each sector 80 70 60 Sector the household head is working in 50 ■ Primary Sector 40 ■ Manufacturing sector 30 ■ Tertiary/Service sector 20 10 0 **Employed** Self employed **Employment status** 

Figure 1:

The sector of Working for Self-Employed and Employed respondents

Figure 1 indicates that 81.0%, (85) of household heads who were self-employed worked in primary industries including agriculture, fishing, and charcoal burning, while Table V indicates that, for those who are employed, 99.1% (3) were casual employees, while 0.9% were fixed-term employees. These findings imply that sources of income for the majority 88 (80.7%) of the residents were not stable, since they were either employed as casual employees or self-employed in the subsistence economic activities which have little returns (Dang and Sui, 2015). It also means most of the residents lack a permanent and reliable source of income thus rendering many vulnerable during the violent events incidences. This means not much effort has been put into infrastructural development in a bid to transition the occupational structure from primary industries' dominance to secondary industries. Therefore, factors such as low infrastructural development including investments in machinery might be associated with the prevailing situation.

# 3.4 Sectors in which household head work

Table VI
Distribution of Respondents across Sectors of Employment in Tana Delta Sub County

Sector	Frequency	Percent
Primary Sector	85	78.0
Manufacturing sector	2	1.8
Tertiary/Service sector	22	20.2
Total	109	100.0

Table VI shows that a larger percentage 78.0%, are involved in the primary sector, 20.2% are involved in the tertiary/ service sector, and 1.8% in manufacturing. A majority, 78.0% working in primary industries are involved in subsistence agricultural activities. These findings concur with Odhengo et al. (2012) who established that primary industries are the predominant economic activities in the Tana Delta sub-county with crop farming employing approximately 60% of the population while 40% work in livestock production and fishing industry.

The findings further agree with Kimenyi et al. (2014) who argue that subsistence agriculture is less affected by conflict and can recover almost immediately after a conflict, thus many people in the sub-county are self-employed on their farms. This means that land is an important factor of production besides serving cultural, social, and biodiversity support functions; hence land and associated resources such as water are likely to trigger a violent event

in the sub-county. This is because everyone would be interested in acquiring more land for the household and investing in this factor of production that suffers fewer disturbances during the time of conflict.

The findings are in line with Chauvin & Rohner (2009) argument that the economies of regions that experience conflicts are dominated by primary industries, often self-employment, dominated by subsistence agriculture and fishing activities. The study findings also indicated that the least employing sector is the manufacturing sector. According to Chauvin and Rohner (2009) manufacturing sector is most affected by conflicts compared to primary and secondary sectors since it depends heavily on the raw materials from the primary sector. Additionally, Kimenyi et al. (2014) who examined the impact of conflict and political stability on agricultural investments concluded that the conflicts hinder the production and supply of the raw materials to manufacturing industries.

The findings indicate that the service industry is the second most affected industry after the manufacturing industry. This is in agreement with Security Research and Information Centre (SRIC) (2018) who concluded that employment opportunities in the service sectors were more inaccessible during the conflict period as compared to other seasons. This is due to displacement of employers and clients, destruction of goods, and government intervention through stringent measures including restrictions on movement in and outside the area as well as reduced hours of operation.

To investigate this objective, the following hypothesis was formulated:

**Ho**<sub>1</sub> Ethnic conflicts have no statistically significant influence on occupational structure in Tana delta sub-county To test this hypothesis, a partial correlation between ethnic conflicts and occupational structure was computed while controlling for the effects of natural disasters experienced.

Since partial correlation computation requires continuous data for the independent and dependent variables, respondents' scores on occupation structure (employment status, tenure of employment, and sector of working) were summed to obtain a composite variable. *A composite* variable is an aggregate of a set of elementary variables/indicators that are highly related conceptually (Song et al., 2013). For instance, for employment status, indicators were assigned values as follows: self-employed=1, employed=2; type of employment; Permanent=5, Fixed-term=4, Casual Employee=3, Apprentice /trainee=2, Commission/piece rate employee=1; primary sector=1, secondary=2 and tertiary/service sector=3. Individual respondent's scores on each of these indicators were summed up to create a composite score for each respondent. For example, if a respondent was employed (scores 2) on a permanent term (scores 5), and worked in the Tertiary sector (scores 3), their score on occupation structure would be 2+5+3=10. If an individual is self-employed (1) in the primary sector (1) their total score would be 1+1=2. This means the highest score on occupation structure that implied economic development was 10 and the lowest score that signified underdevelopment is 2. Table VII presents the frequency of the resultant individual respondent scores.

Table VII:

Respondent's Score on Occupation Structure Indicators

Respondent's score for occupation structure indicators (composit	Frequency te variable)	y Percent
2.00	85	78.0
3.00	2	1.8
4.00	18	16.5
8.00	3	2.8
9.00	1	.9
Total	109	100.0

The resultant occupation structure continuous composite variable was correlated with the respondents' ethnic conflict score (number of times the respondent experienced ethnic conflicts) through a partial correlation computation while controlling for moderating variable (natural disaster experienced). For the moderating variable, natural disasters experience, dummy coding was done so that 'yes' was assigned 1 and 'No' was assigned 0. This allowed the computation of the correlation.

Partial correlation is used to determine the relationship between the independent and dependent variables while controlling for possible effects of one or more additional variables (moderating variable). This statistic was used to statistically control the effects of confounding variables, that is, natural disasters to allow produce an accurate picture of the relationship between the independent and dependent variables. The results of the analysis are presented in Table VIII.

Table VIII

Partial Correlation between Ethnic Conflicts and Occupational Structure

Control Variables		Number of	Occupation	Natural		
				violent events	structure	disaster
				experienced		experienced
				between 2010 and		
	27 1 2			2020	211	005
-none-a	Number of	Correlation		1.000	311	007
	violent events experienced	Significance tailed)	(2-	•	.001	.945
	between 2010	Df		0	107	107
	and 2020	DI		U	107	107
	Occupation	Correlation		311	1.000	116
	structure	Significance tailed)	(2-	.001	•	.230
		Df		107	0	107
	Natural disaster	Correlation		007	116	1.000
	experienced	Significance tailed)	(2-	.945	.230	•
		Df		1.000	311	007
Natural	Number of	Correlation		1.000	314	
disaster experience	violent events experienced	Significance tailed)	(2-		.001	
d	between 2010 and 2020	Df		0	106	
	Occupation	Correlation		314	1.000	
	structure	Significance tailed)	(2-	.001	•	
		Df		106	0	

a. Cells contain zero-order (Pearson) correlations.

The Partial Correlations Table VIII shows both the zero-order/Pearson correlations (correlations without any control variables) of all three variables and the partial correlation of the first two variables controlling for the effects of the third variable. The partial correlation between the number of violent events and occupation structure with experience of natural disaster held constant is = -.314 with p< 0.001, which indicates a stronger moderate significant relationship than the zero-order one of -.311. Therefore, natural disasters experienced have a small but important effect in moderating the correlation between the number of ethnic conflicts and the occupation structure of the subcounty.

With the statistically significant relationship indicated by a p-value of .001, the null hypothesis that ethnic conflicts have no statistically significant influence on occupational structure in the Tana delta sub-county is rejected, and it is concluded that ethnic conflicts and occupation structure have a moderately significant relationship. The -.314 correlation coefficient means that, as the number of ethnic conflicts increases the occupation structure is negatively affected, thus decrease in the number of ethnic conflicts may mean an improvement in the occupation structure of the sub-county. In this study, improved occupation structure would be reflected in the tenure of employment, where permanent employment would be prevalent as well as the sector of working, that is, many people working in the manufacturing and service industry. The negative results imply that the economy of the area is underdeveloped and is characterized by low investments even in infrastructure and consequently low incomes. According to the

proponent of modernization theory, Rostow (1960) and Gumbis (2009), a more developed economy is dominated by manufacturing and tertiary industries, with no involvement in subsistence economic activities, but rather mechanized large scale and commercial primary activities including mechanized agricultural production and mining. This study also established that some of the ways in which the employment aspects were influenced by the violent events refer to Table IX.

Table IX

Ways Ethnic Conflict Influenced Occupation Structure

Influence of violent events on occupational structure	Frequency	Percent
Change of occupation to less vulnerable occupation	32	29.4
Lack of market (decrease in customers)	26	23.9
Closure of business	13	11.9
Lack of pasture	2	1.8
Loss teaching job due to school closure	5	4.6
Tension leading to unemployment	21	19.3
Loss of crop because no one to tender	2	1.8
Loss of livestock	3	2.8
Developed health issues and could not work anymore	1	.9
Displacement and loss of properties	4	3.7
Total	109	100.0

Table IX shows that 29.4% changed their occupations to less vulnerable occupations. This means a majority of the residents had to shift from their well-paying and better jobs to a different occupation even if it was less paying provided it suffered lesser effects during conflicts; 23.9% suffered lack of market (decrease in customers). During the conflict period, the potential buyers and suppliers would relocate either due to displacement or fear of attack. This would translate to a lack of market even after cease-fires, and this led to job loss cited by 19.3% and closure of businesses cited by 11.9. In addition, 4.6% cited the loss of their teaching jobs. Those who worked as teachers were automatically rendered jobless since families and learners had relocated. For those self-employed on their farms, they lost their jobs since they could not go to the farms to tend the crops because of fear of an attack and consequently would lose the crop and the fertile land to stubborn invasive species such as *Prosopis juliflora* commonly known as Mathenge, refer to Table IX.

These findings agree with Kivoto (2015) who opines that conflicts influence occupational structure through a shift from the service and manufacturing industry to primary industry; including logging and charcoal burning which was evident in the sub-county. The author adds that during the conflicts several household heads loose their businesses through looting and burning down of buildings leading to the total crippling of their service industries and resorting to cheap alternatives for survival in the primary sector. The findings also agree with McIntosh & Buckley (2015), who in their work on economic development in fragile and conflict-affected states opine that, during and after conflict, livelihood systems do not normalize and therefore, people do not necessarily resettle in their pre-conflict economic activities. Therefore, this study concluded that there is always a disruption and change of occupations during and after times of conflict.

## 4. Conclusions

The study revealed that there is a significant relationship between the number of ethnic conflicts and occupation structure in the Tana delta sub-county. It was also observed that ethnic conflicts influence the occupational structure, in terms of the sector/industry one worked in. The more the number of conflicts the respondent experienced, the higher the probability of the respondent working in the primary sector. Thus, the study led to the conclusion that ethnic conflicts negatively influence occupational structure. That is, as the number of conflicts increases, the occupation structure deteriorates and tends to skew towards primary industries' dominance. This confirms that a



region needs maintenance of law and order to transition its economy from primary to manufacturing and service industries which dominate developed economies.

#### 5. Recommendations

Based on the findings, the following recommendations are made:

- 1. There is a need to ensure strict implementation of Article 33 of the Kenyan constitution of 2010 during election periods to avoid incitement and consequently ethnic conflicts.
- 2. There is a need for all actors in the sub-county including the county government, national government, faith-based and non-governmental organizations to engage in peace-building efforts. This can help end the violent events in the sub-county since the conflicts not only hinder government development programs, but also private investors' entry into the sub-county and consequently influence the area's occupation structure.
- 3. There is a need for government, community, and non-state entities such as non-governmental organizations to engage in concerted efforts towards the improvement of occupation profile in the area. This will help eradicate monetary poverty which can as well serve as a trigger for violent conflicts. This can help ensure there is no recurrence.
- 4. There is a need for the county government of Tana River to provide a permanent solution to some of the natural disasters, such as floods through the implementation of a land-use planning framework. This will ensure people are settled in secure locations and help reduce potential triggers to the conflict that are associated with displacement and migration of the ethnic groups or communities during the disaster eventualities.

#### 6. References

- Armed Conflict Location & Event Data Project (ACLED). (2019). Guide to Dataset Use for Humanitarian and Development Practitioners. <a href="https://reliefweb.int/report/world/armed-conflict-location-event-data-project-acled-guide-dataset-use-humanitarian-and-0">https://reliefweb.int/report/world/armed-conflict-location-event-data-project-acled-guide-dataset-use-humanitarian-and-0</a>
- Armed Conflict Location & Event Data Project ACLED. (2017). Conflict Trends (No. 55): Real-Time Analysis of African Political Violence, February 2017. <a href="https://reliefweb.int/report/world/conflict-trends-no-55-real-time-analysis-african-political-violence-february-2017">https://reliefweb.int/report/world/conflict-trends-no-55-real-time-analysis-african-political-violence-february-2017</a>
- Bakken, I. V., & Rustad, S. A. (2018). Conflict Trends in Africa, 1989–2017, Conflict Trends, 6. Oslo: PRIO. https://www.prio.org/Publications/Publication/?x=11048
- Bocha, G. (2017, November 26). Rights body urges government to release report on Tana Delta killings. *Daily Nation*. <a href="https://www.nation.co.ke/counties/tana-river/Publish-report-Tana-Delta-killings/3444928-3443452-o0r567/index.html">https://www.nation.co.ke/counties/tana-river/Publish-report-Tana-Delta-killings/3444928-3443452-o0r567/index.html</a>
- Chauvin, N. D., & Rohner, D. (2009). *The Effects of Conflict on the Structure of the Economy*. In Proceedings of the German Development Economics Conference, Frankfurt 2009, No. 6. <a href="https://ideas.repec.org/p/zbw/gdec09/6.html">https://ideas.repec.org/p/zbw/gdec09/6.html</a>
- Chebunet, K. P., Adome, J. L., & Abonyo, J. C. L. (2013). Cultural Beliefs as a Source of Ethnic Conflicts: A Study of the Turkana and Pokot Pastoralists of Kenya, 1(June), 1–13. http://ir.mu.ac.ke:8080/xmlui/handle/123456789/915
- Cortina, J. M. (1993). What Is Coefficient Alpha? An Examination of Theory and Applications. *The Journal of Applied Psychology*, 78(1), 98–104. https://doi.org/10.1037/0021-9010.78.1.98
- Divisha. (2016). *How Occupational Structure Changes with Economic Development*. <a href="http://www.sociologydiscussion.com/population/how-occupational-structure-changes-with-economic-development/3178">http://www.sociologydiscussion.com/population/how-occupational-structure-changes-with-economic-development/3178</a>
- Dowd, C., & Raleigh, C. (2013). *ACLED country report: Kenya*. <a href="http://www.acleddata.com/wp-content/uploads/2014/10/ACLED-CountryReport">http://www.acleddata.com/wp-content/uploads/2014/10/ACLED-CountryReport</a> Kenya December-2013 updated.pdf
- Emmanuel, D., Seidu, A., & Owusu-Mensah. (n.d.). The cost of inter-ethnic conflicts in Ghana's northern region:

  The case of the Nawuri-Gonja conflicts. Scholar

  Commons. <a href="https://scholarcommons.usf.edu/jacaps/vol3/iss1/">https://scholarcommons.usf.edu/jacaps/vol3/iss1/</a>
- Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *Research in Nursing & Health*, 31, 180–191. https://doi.org/10.1002/nur.20247
- Johanson, G., & Brooks, G. (2010). Initial Scale Development: Sample Size for Pilot Studies. *Educational and Psychological Measurement*, 70, 394–400. <a href="https://doi.org/10.1177/0013164409355692">https://doi.org/10.1177/0013164409355692</a>



- Kenya National Commission for Human Rights (KNCHR). (2014). *Are we under siege?* The state of security in Kenya: an occasional report (2010 2014). Nairobi: KNCHR. <a href="http://www.ke.undp.org/content/dam/kenya/docs/Democratic%20Governance/State%20of%20Security%20in%20Kenya%20-Occassional%20Report.pdf">http://www.ke.undp.org/content/dam/kenya/docs/Democratic%20Governance/State%20of%20Security%20in%20Kenya%20-Occassional%20Report.pdf</a>
- Kimenyi, M., Adibe, J., Jirgi, A. J., Kergna, A., Deressa, T. T., Pugliese, J. E., & Westbury, A. (2014). *The Impact Of Conflict And Political Instability On Agricultural Investments*. Africa Growth Initiative Working Paper 17 | July 2014. <a href="https://www.brookings.edu/wp-content/uploads/2016/06/14-07-22-Impact-of-Conflict-MaliNigeria FINAL.pdf">https://www.brookings.edu/wp-content/uploads/2016/06/14-07-22-Impact-of-Conflict-MaliNigeria FINAL.pdf</a>
- Kipkemoi, S., Nyamasyo, G., Mari, N., & Musingi, J. (2017). Natural resource based conflicts in Tana River County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 2(3), 599-610
- Kirchner, K. (2013). Conflicts and Politics in the Tana Delta, Kenya, An Analysis of the 2012-2013 Clashes and the General and Presidential Elections 2013. <a href="https://openaccess.leidenuniv.nl/handle/1887/22835">https://openaccess.leidenuniv.nl/handle/1887/22835</a>
- Kivoto, M. E. (2014). Ethnic Conflict And Its Impact On Economic Development In Africa: A Case Study Of Kenya International

  Relations. <a href="https://www.academia.edu/11302119/Ethnic Conflict And Its Impact On Economic Development In Africa A Case Study Of Kenya">https://www.academia.edu/11302119/Ethnic Conflict And Its Impact On Economic Development In Africa A Case Study Of Kenya</a>
- Mehta, P. (n.d.). Occupational Structure and Economic Development. <a href="http://www.economicsdiscussion.net/economics-2/occupational-structure-and-economic-development/2161">http://www.economicsdiscussion.net/economics-2/occupational-structure-and-economic-development/2161</a>
- Ngozi, I. (2014). Impact of Cost of Conflict on Economic Development in Nigeria. *International Journal of Open Scientific Research*, 2, 13–31.
- Oduor, S. (2021, January 19). *Kenya: One dead in community clashes as tensions flare in Tana River*. allAfrica.com. <a href="https://allafrica.com/stories/202101190359.html">https://allafrica.com/stories/202101190359.html</a>
- Rohwerder, B. (2015). Conflict Analysis of Kenya. GSDRC, University of Birmingham., <a href="https://gsdrc.org/publications/conflict-analysis-of-kenya/">https://gsdrc.org/publications/conflict-analysis-of-kenya/</a>
- Schafer, H. (2018). The drivers of conflict: Where climate, gender and infrastructure intersect. World Bank. <a href="http://blogs.worldbank.org/dev4peace/drivers-conflict-where-climate-gender-andinfrastructure-intersect">http://blogs.worldbank.org/dev4peace/drivers-conflict-where-climate-gender-andinfrastructure-intersect</a>
- Szayna, T. S., O'Mahony, A., Kavanagh, J., Frederick, B., Norlen, T. C., Watts, S., & Voorhies, P. (2017). Conflict Trends and Conflict Drivers: An Empirical Assessment of Historical Conflict Patterns and Future Conflict Projections. RAND Corporation., <a href="https://www.rand.org/pubs/research\_reports/RR1063.html">https://www.rand.org/pubs/research\_reports/RR1063.html</a>
- Vannice, C. (2017). *Bringing Clarity to Crisis*. Armed Conflict Location & Event Data Project: Kenya-June 2017 update. https://www.acleddata.com/2017/07/17/kenya-june-2017-update/