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**Edited By  
Anthony MW | Karen Afandi**

## EDITORIAL NOTE

Welcome to Volume 10, Issue 2 (2023) of the *African Research Journal of Education and Social Sciences (ARJESS)*. This issue continues our commitment to advancing scholarly discourse by presenting a collection of research articles that address emerging and persistent challenges within education and social systems across Africa. The contributions in this volume reflect a growing emphasis on innovation, inclusivity, and evidence-based approaches in addressing contemporary societal needs.

The studies featured in this issue explore a wide range of themes, including educational practices, policy implementation, community development, and socio-economic transformation. The authors provide insightful analyses grounded in empirical research, offering practical implications for educators, policymakers, and development practitioners. The diversity of perspectives captured in this issue underscores the dynamic and evolving nature of education and social sciences research within the African context.

We trust that the insights shared in this volume will not only enrich academic dialogue but also inform policy and practice aimed at improving educational outcomes and social well-being. We extend our sincere appreciation to the authors, reviewers, and editorial team whose dedication has made this publication possible, and we remain committed to promoting high-quality research that contributes to sustainable development across the continent.

**Kind Regards,**

**Anthony, M.W**

**Editor-in-Chief, African Research Journal of Education and Social Sciences (ARJESS)**

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## AN EVALUATION ON INTELLIGENCE-POLICY MAKER RELATIONSHIP AMIDST RISING TERRORISM IN HORN OF AFRICA REGION

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**Abstract:** *The threat of terrorism in the Horn of Africa region is on the rise despite sustained international and regional military efforts. The Somalia-based terrorist group, Al-Shabaab, continues to perpetrate violent crimes in parts of Somalia and neighboring countries, particularly those contributing troops to the African Union Transition Mission in Somalia (ATMIS). This study examines the relationship between intelligence and policy-making in countering terrorism within the region. Through an analysis of relevant literature and interviews with key respondents, this article argues that the non-responsiveness of policymakers to strategic intelligence assessments is at the heart of explaining the continuity of the terrorism challenge in the region. The study recommends strengthening trust between the intelligence community and policymakers to enhance counter-terrorism efforts in the region. The purpose of this research is to shed light on the complex dynamics between intelligence and policy-making in the Horn of Africa's fight against terrorism. By exploring the multifaceted factors contributing to the rise of Al-Shabaab activities, the study aims to discern the critical role played by intelligence assessments in shaping effective counter-terrorism strategies. It delves into the challenges faced in integrating intelligence insights into policy decisions, ultimately affecting the region's security landscape. Furthermore, this article examines the implications of the existing gaps in the intelligence-policy maker relationship and highlights the urgent need for collaboration, transparency, and effective information-sharing mechanisms to address the terrorism menace effectively. Based on the findings, this study advocates for a comprehensive approach that fosters greater trust and cooperation between the intelligence community and policymakers. By enhancing responsiveness to strategic intelligence assessments, policymakers can make informed and timely decisions that bolster counter-terrorism efforts in the Horn of Africa. The paper concludes that a more robust and cohesive intelligence-policy maker relationship is essential for devising evidence-based counter-terrorism strategies and safeguarding the lives and livelihoods of civilians in the region. As the threat of terrorism continues to evolve, embracing a culture of information sharing and collaboration will be instrumental in securing lasting peace, stability, and prosperity for the Horn of Africa.*

**Keywords:** *Intelligence-Policy maker, Policy maker relationship Intelligence evaluation, Policymaker, rising terrorism, Horn of Africa terrorism, Intelligence-Policy*

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## INTRODUCTION

Intelligence in theory and practice varies across many cultures. In the Horn of Africa region, intelligence has its own jargon. It is largely, associated with secrecy or even the secret police. In Ethiopia, for instance, intelligence is associated with community policing or the ‘hybridity in policing’. That is, the local community is responsible for information gathering and dissemination in a quasi-state institutionalized system referred to as, *Kebele* system. This system has managed to enhance security and justice in most parts of Ethiopia (Baker, 2013). On the other hand, intelligence concept in Somalia extends beyond state-centrism and even the ‘hybridity in policing’ concept. In fact, activities of non-state group-Al-Shabaab, dominates the discourse on intelligence. Al-Shabaab’s intelligence wing, *Amniyaat*, dominate the discourse on intelligence possibly due to its precision and sophisticated manner (Sinko&Besenyo, 2021).The intelligence as a concept as understood in the Horn of Africa region, therefore varies in context and spatial dimensions. It revolves around activities of state and non-state actors or even both, as illustrated.

Sherman Kent, a towering scholar in the intelligence studies discipline, posits that intelligence is knowledge. It is processed information that goes through the stages described in the intelligence cycle. The stages are; planning and direction, collection, processing, analysis and dissemination (Kent, 1949). Intelligence also means the institution or organization responsible with safeguarding the state from threats emanating from within and without. Intelligence here in would refer to the intelligence agencies found in the Horn of Africa. These are the; National Intelligence Security Service (NISS) of Ethiopia; National Intelligence and Security Services (NISA) of Somalia; General Intelligence Service (GIS) of Sudan; Djibouti’s Documentation and Security Service (SDS); and National Security Office (NSO) of Eritrea.

Moreover, intelligence means covert actions undertaken by an intelligence outfit. The secret activities are carried out by a respective state so as to influence the political, economic or military conditions of another country abroad. The guiding principle for such actions is *plausible deniability*. It means that; incase an intelligence officer or a representative of a country is caught or intercepted while engaged in clandestine activities in a host nation, then one should always deny culpability (Andregg, 2010).

A closer illustration on the application of the plausible deniability principle is that; in September 2021, Fahad Yasin, the former head of NISA was arrested and detained in Djibouti while attempting to return to Somalia. On its part, the Djibouti Government denied accusations that it had detained a Turkish airlines carrying the top Somalia Security official, even as Somalia claimed that Yasin had been illegally detained (Mutambo, 2021)

The ‘need to know’ is another guiding principle applied by the intelligence outfits found in the Horn of Africa. The ‘need to know’ means that sensitive information is made available only to persons with the right clearance. It allows the value of intelligence to increase. It also allows the intelligence to be shared with consumers who need it thereby lessening the risk that intelligence will be compromised. Secrecy therefore is the utmost creed (Kitur, 2013).

However, the ‘need to know’ principle is in a state of flux. It is giving way to the norm of ‘responsibility to provide. The norm is based on a belief that compartmentalization of information affects the desired outcome. More so, the evolving and complex nature of threats in the post-cold war environment provides impetus for cooperation and information sharing on intelligence matters. In USA, for example, effective security management is founded on intelligence sharing and cooperation amongst the seventeen (17) intelligence units. The intelligence units are coordinated by the Office of Directorate of National Intelligence (Johnson, 2010).

Like in USA, intelligence cooperation frameworks are gradually being embraced in non-Western democracies like Kenya. The multi-agency framework for combatting terrorism in the country is founded on the principle of responsibility to share information. These frameworks are, manifest through established centers like; National Counter-terrorism Center (NCTC) and Joint Counter-Terrorism Analysis Center (JCTAC). In both illustrations, officers drawn from either, the National Intelligence Service, Kenya Defense Force, Immigration Services, Kenya Revenue Authority, Correctional services, Directorate of Public Prosecutions among other state agencies work closely to deter, disrupt and defeat terrorist elements (Kitur, 2013).

Intelligence is still considered a ‘taboo’ for most African countries, notwithstanding the shifting approaches and philosophies on intelligence management (Pateman, 1992). This is largely because intelligence agencies in Africa still function as personal fiefdoms. They rarely reveal details about their size, operations and funds. They are not accountable to senior politicians, civil servants as well as the Head of State who may not know what is going on in the intelligence agency. In most instances, the Intelligence assets are also deployed against domestic critics and are oriented exclusively towards domestic control.

Further, political expediency is attained through politicization of intelligence agencies. The politicization for domestic control involves corrupting the intelligence analysts to produce intelligence products that please politicians or policymakers. The import is that, intelligence analysts must know the policy maker’s frame of mind and strategy (Pillar, 2010). Within the parlance of Intelligence Communities in the Horn of Africa, it is referred to ‘knowing your customer’. It means that an intelligence analyst is required to be responsive to the needs of the policy maker.

Introspectively, the literature on intelligence is yet to be accepted as valid even within the academic circles. The information and documents held by the intelligence community are still classified and are not available to those who do not have security clearance. This is a limitation that the author had to bear with during the course of investigation.

In light of the rising threat of terrorism in the Horn of Africa region, this article delves into the interplay between intelligence and policy-making, specifically in relation to countering terrorism and the activities of Al-Shabaab. The article aims to explore the diverse intelligence practices present in the region, involving both state and non-state actors, and examine the challenges faced in effectively utilizing intelligence to inform policy decisions. Furthermore, the study seeks to shed light on the importance of intelligence in safeguarding states from internal and external

threats, emphasizing principles like plausible deniability and the 'need to know' in intelligence operations.

Additionally, the research delves into the complexities surrounding the intelligence-policy maker relationship and investigates challenges such as limited transparency, politicization of intelligence, and compartmentalization of information. Through an analytical lens, the study endeavors to provide a deeper understanding of how these challenges can impede collaboration and effective information-sharing among intelligence agencies and policymakers. Ultimately, the article aims to offer valuable insights and recommendations to strengthen intelligence cooperation, enhance regional security efforts, and foster more informed and robust counter-terrorism strategies in the Horn of Africa.

### **Policy-Making and Intelligence**

Policy making, on the other hand, is a province of elected politicians and their representatives. It is not a monolithic or a unitary entity. Each policy maker, be it at executive, parliamentary or judicial level, has a lone primary goal. That goal is to gain, maintain and expand power. Achieving these goals may require the sacrificing of values such as truth, prudence, national ideals and other values which are taken to be sacrosanct. Therefore, policy and the process of creating it, is what a government chooses to do and what not to do (Dye, 1972).

For most Western democracies, democratization of policy making is considered an ideal. It is an all-inclusive enterprise that encompasses many actors who are located in the public and private spheres. The agencies compete to influence policy and the policy maker. The maxim 'where you stand depends on where you sit,' in bureaucratic politics exemplifies this kind of relationship (Allison & Zelikow, 1999). Contrastingly, policy making in non-democratic regimes is characterized by singularity or monism. It is largely a purview of the executive arm or the president who determines what should be prioritized and implemented. Only on a few circumstances that an all-inclusive inter-agency approach in policy-making becomes clear.

The relationship between policy-making and intelligence is not of equals. Intelligence agencies produce what policy-maker consumes. That is, intelligence outfits are there to serve policy. It is a practice that dates to history. In ancient Mauryan Empire of India, for example, Kautilya, a classical strategic thinker observes that, intelligence spies are critical for securing and defending the state (Niaz, 2008). Sun Tzu, a classical Chinese military strategist also mentions in the *Art of war* that, fore-knowledge or intelligence and state wellbeing is intertwined. In contemporary literature, the efficacy of intelligence in statecraft is also affirmed. Without intelligence the survival and wellbeing of the state cannot be guaranteed.

Intelligence agencies therefore have to exist as part of the larger apparatus that works for policy-makers. They protect the ruling regime, consolidate power and safeguard national security. There is no other meaningful function beyond this relationship. On its part, governments are run by and for policy-makers, the most senior of whom govern by virtue of having won an election which gives them the right to appoint senior officials including those that serve in the intelligence structures.

It is due to this asymmetrical relationship that policy makers fail to listen to good intelligence. They tend to have prejudicial assumptions about those providing it. They also fear that the intelligence they receive is designed to fix their thinking including demonstrating that they are wrong. Further, policy makers hold firm beliefs which among them is that; intelligence community tend to overlook evidence that is contrary. Policy makers also believe that the assessment of issues by intelligence agencies is poor and as such, have the prerogative to look for intelligence (Pillar, 2010). This has led to some scholars to question the capacity of policy makers to consume the intelligence.

According to (Munene, 2022) most policy-makers or decision makers lack requisite endowment to synthesize the generated intelligence and therefore ought to be inducted to intelligence products to avoid possible fall-out with the society. On same breath, the competence of intelligence officers should be re-evaluated to prevent creeping inertia and political commotion. Therefore, the quality and competence of the producer and consumer of intelligence must complement one another. The failure to focus on the inefficiency of the intelligence architecture as well as on the consumers of intelligence is to blame for the security lapse. How does this problem that is located either at the intelligence or the policy making level affected the society in the Horn of Africa? Should there be concern on the relationship between the intelligence and policy-making in the region?

Theories are there to explain, describe and forecast phenomena including the relationship between intelligence and policy-maker. One of this theory is subversion-paradox theory. The theory propelled by Faini, (2020) posits that, intelligence agencies provide vital information for national security but the secrets they possess can also be used against their own masters. They can be used to sabotage the consumers of intelligence. Likewise, the theory posits that consumers of intelligence may have a concealed mission to bring intelligence agencies to big disrepute. The relationship between intelligence and policy-maker is therefore characterized by mistrust, suspicion and uncertainty. How these relational aspects that characterize intelligence agencies and policymakers pan out within the terrorism discourse in the Horn of Africa region is a subject that this study was interested in investigating.

## **INTELLIGENCE-POLICY MAKER RELATIONSHIP IN THE CONTEXT OF COUNTER-TERRORISM EFFORTS IN HORN OF AFRICA**

Countering terrorism is a challenge in the Horn of Africa. A report by UNDP titled, *Journey to Extremism in Africa: Pathways to Recruitment and Disengagement*, shows that terrorist elements are exploiting instability and conflict to intensify attacks amidst a wide scale offensive by regional and international military forces. In particular, Al-Shabaab remains the deadliest terrorist group in Somalia responsible for 534 deaths or 89 percent of all terror related deaths in the country in 2021. The terror outfit has also developed a cross-border military strategy initiating insurgencies across six countries in the Horn of Africa and carrying out attacks in five of them (Kambela, 2020). Consequently, many civilians continue to suffer from the broader impact of terrorism on their lives and livelihoods.

A myriad of responses exist at the international, continental, regional and national levels, to counter the threat of Al-Shabaab. These responses are dependent on the nature of relationship that exist between the prime decision makers and intelligence. At the international level, for instance, the United Nations through its organ -the United Nations Security Council (UNSC) provides a global response for containing the Al-Shabaab threat. UNSC has released several resolutions targeted against the terrorist group. In UNSC resolution 1844 (2008), Al-Shabaab is listed as a terrorist group that engages in acts that directly or indirectly threaten the peace, security or stability in Somalia. The success of such UN responses, however, largely depend on the relationship between UNSC and the Counter-terrorism Executive Committee fondly known as CTED. CTED is an extension of UNSC. It is composed of serving and former security intelligence officers drawn from across the world. The role of the office is to proactively provide strategic intelligence to UNSC. Strategic intelligence, therefore, underwrites activities of UNSC whose bearing on counter-terrorism strategies in Somalia is notable (UNSC 2008).

Notable achievements of CTED in Somalia include; identification and listing of individuals, groups, undertakings and entities included on the 1844 UNSC sanction list. CTED also conducts country visits to Somalia on behalf of UNSC. The objective is to assess its commitment to counter-terrorism efforts. It also identifies terrorism trends in Somalia. The recent ones are; the flagging out of Al-Shabaab in financing of terrorism using charcoal and acquisition of improvised explosive Device (IED) making materials

Strategic responses exist also at the continental level. The African Union (AU) provides the vital leadership in policy matters on terrorism. This is attained through issuance of policy statements and directives aimed at combatting the threat of terrorism. Some of the policy directives are the *Silencing the guns*, a flagship initiative of the African Union (AU) Agenda 2063. The initiative aims to end all wars, conflict and gender-based violence and to prevent genocide. Other AU flagship projects aimed at addressing transnational terrorism and applicable to Horn of Africa are; Organization for African Unity (OAU) Convention for Elimination of Mercenaries in Africa adopted in 1977 and OAU Convention on prevention of and combatting of terrorism adopted in 1999. The 2002, AU plan of Action of Preventing and Combatting terrorism also sought to strengthen the commitments and obligations of the member states in preventing terrorism (Ewi & Aning, 2006).

Being the consumers of intelligence, the AU Peace and Security Council (APSC) relies on the strategic intelligence from CISSA. CISSA's headquarter is in Addis Ababa, Ethiopia. Its key mandate is to coordinate intelligence as well as promote cooperation, confidence building measures and capacity building among the intelligence and security services of Africa. The membership of CISSA is open to all intelligence and security services of African countries. Currently, fifty one (51) intelligence and security services are signatories to the CISSA constitutive memorandum of understanding and are thus members of CISSA. Therefore, all intelligence agencies and security services of the six countries forming the Horn of Africa region are members of CISSA (Hutton, 2016).

Perceptions differ regarding the effectiveness of CISSA on terrorism. It is cited that the regional intelligence body works at cross purposes with the African Union Peace and Security Council (APSC). There is weak synergy and coordination of intelligence leading to conflicting responses on the fight against terrorism at the continental level. The ineffectiveness of the African Union to combat transnational terrorism therefore, is a matter of policy failure owing to poor implementation of established protocols for peace and stability across the African continent (Usman & Aghalino, 2021).

The African Center for the Study and Research on Terrorism (ACSRT) located in Algeria is another platform that feeds to the AU peace and security machinery. The institution prides itself as a center of excellence in research matters concerning prevention and combatting terrorism in Africa. As a structure of the African Union Commission, the Center contributes to and strengthens the capacity of African Union to deal with issues relating to prevention and combatting terrorism in Africa with the ultimate objective of eliminating the threats posed by terrorism to peace, security, stability and development.

Inter-Governmental Authority on Development (IGAD) engagement on intelligence matters is not as active as AU. This is attributed to its historical origin. IGAD was formed in 1996 to supersede its predecessor the; Inter-governmental Authority on Drought and Development (IGADD). The aim of IGADD was to address the recurring severe droughts and other natural disasters. It is this association with ecological and not peace and security matters that explains the lackluster performance on the part of intelligence producers and consumers who are located in IGAD region. (Wulf & Debiel, 2009)

Strategic initiatives of IGAD in the region exist. The *Somalia Frontline States Summit on regional efforts towards stabilization of Somalia and eradication of terrorism* is the most recent. During the summit held on 01 February, 2023, Kenya, Somalia Djibouti and Ethiopia agreed to join forces to restore peace and stability in Al-Shabaab prone areas of Somalia (Tekle, 2022.). Another milestone is the IGAD Regional strategy for preventing and countering violent extremism formulated in the year 2016. The framework aims to enhance the soft power capabilities, coordination and partnerships to prevent and counter violent extremism. Further, the IGAD roadmap to deny Al-Shabaab access to weapons is a strategic initiative that bears a resemblance to AU Agenda 2063 to *Silence the guns* in Africa. The strategic initiative came to being in 2019.

### **Country Level Assessment on Intelligence-policy maker relationship**

Intelligence-policy maker relationship is determined by the degree of politicization in respective intelligence agencies in Horn of Africa region. The higher the degree of politicization, the better the intelligence-policy maker relationship with spiraling effects on the counter-terrorism efforts. This is quite striking in Ethiopia where politicization is rife while terrorism incidences remains low. The politicization in the country's intelligence is manifest in the direct appointment of Director General of NISS by the Prime-Minister. Unlike other Ministerial Heads, the Director General of NISS is directly appointed by the Prime Minister who also plays the role of supervising the overall function of the intelligence organization. Additionally, Article 30 of the Anti-terrorism Proclamation bestows Ethiopia's intelligence agency a leadership role in

coordination of all affairs on terrorism. All other organs of law enforcement therefore become subordinate bodies to NISS in the task of preventing and countering terrorism. This closely knit relationship between the Prime Minister and intelligence agency on terrorism matters therefore has a bearing on the number of reduced attacks in the country (Mesfin, 2010).

Contrastingly, a lukewarm relationship between the intelligence and the policymaker engenders insecurity. It leads to a security vacuum which allows terrorists elements to exploit. In Somalia, for instance, the intelligence agency-NISA lacks cordial connection with the prime decision makers. These prime decision makers are, Office of Presidency, National Parliament and the executive positions. NISA and organs in the Federal Government of Somalia are always competing for political control. The intense inter-agency competition creates non-responsiveness by the consumers of intelligence. This precipitates state agencies to withhold information and refrain to cooperate in information sharing (Staff reporter, 2020).

The clan-based system ingrained in Somalia's national psyche also exacerbates the fragile relationship between NISA and the prime decision makers. Somalia is comprised of clans and sub-clans that compete for political dominance in Somalia. The clan-based system creates a false consciousness that each respective clan considers it necessary to protect and advance by all means. Such ceaseless inter clan competition is at the center of NISA and Somalia Military Army (SNA) thus affecting the counter-terrorism operations in Somalia. Somalia's media outlet, *Garowe on-line*, reported in July 2020 that police officers attached to the NISA clashed with SNA at Dhusamareb in Galmadug state. The infighting within the government troops gave Al-Shabaab an opportunity to seize control of government held regions (Staff reporter, 2020).

Furthermore, the distant relationship between policy-maker and intelligence agency is epitomized in Djibouti's case. The intelligence agency in Djibouti, *Documentation and Security Service (SDS)*, is heavily dependent on external (foreign) patrons than the domestic polity. Consequently, such security overlays in Djibouti complicates the security dynamics in the country making the threats including terrorism more complex and complicated. Specifically, the competition by the extra-regional actors to influence SDS makes the agency less efficient and effective in draining the pool for terrorism facilitation and recruitment in Djibouti (Adeto, 2019). A major reason for over-reliance by Djibouti's intelligence agency on foreign patrons is because of the numerous foreign military installations in Djibouti. Historically, the French have maintained a military base in Djibouti. United States of America has also opened a military base in Djibouti for operations on its war against terrorism particularly those Al-Qaeda targets in Yemen and Somalia. China on its part opened a military base adjacent to Doraleh multi-purpose port in 2017 largely because it wants to solidify its Belt and Road Initiative (BRI). Other countries with keen interest along the Coast of Djibouti and Somalia are; Saudi Arabia, United Arab Emirates, Turkey, Japan, North Atlantic Treaty Organization (NATO), Germany and Italy (Adeto, 2019).

In sum, intelligence and policymaking and how the two concepts correlate influence on counter-terrorism in the Horn of Africa region. The politicization of intelligence services results in an eased containment of insecurity. Likewise, non-responsiveness of the policy-maker to intelligence organizations generates a security vacuum that ends up being occupied by terrorists

and criminal elements. Other aspects like unaccountability of NISA to prime-decision makers as in Somalia and the excessive foreign patronage in Djibouti also influences the counter terrorism responses in the respective countries.

What needs to happen is for enhanced trust between intelligence and policy-makers. The idea is to have the intelligence agency and policy-maker talking to each other and not past each other. Quite often blame games become common whenever, terrorist incidents occur. Strategic Intelligence analysts cite that the terrorist occurrences are due to a failure in policy and not failure of intelligence. The analysts point out that the strategic warnings were provided in good time to policy makers but the policy-makers fail to act on the intelligence. Likewise the policy-maker accuse the intelligence organizations for failing to detect terrorism early enough and if they do, the warnings are not specific. They are not categorical on the place, type or even the likely perpetrators of the terrorist attacks. Therefore like the principles of 'need to know,' 'knowing your customer' and 'plausible deniability' which are supreme intelligence agencies, there is need to embrace others such as enhanced confidence-building measures and trust. Their adoption influences political outcomes including those efforts that are geared towards curbing terrorism.

### CONCLUSION

This study embarked on a thorough and comprehensive investigation into the intricate intelligence-policy maker relationship in countering terrorism within the Horn of Africa region, with a particular emphasis on the activities of the formidable terrorist organization, Al-Shabaab. Through meticulous inquiry, the diverse range of intelligence practices, involving both state and non-state actors, came to light, underscoring the intricacies inherent in addressing the ever-evolving security challenges faced by the region. By rigorously analyzing intelligence principles such as plausible deniability and the 'need to know,' this study underscores the pivotal and indispensable role played by intelligence agencies in safeguarding states from internal and external threats.

The thorough analysis of the region's counter-terrorism efforts has brought to the forefront the challenges posed by limited transparency, politicization of intelligence, and compartmentalization of information. These obstacles have profound implications, impeding effective collaboration and information-sharing among intelligence agencies and policy-makers. The ramifications of these challenges extend to the quality and efficacy of informed decision-making in the relentless pursuit of counter-terrorism strategies. Thus, it becomes patently evident that intelligence serves as a pivotal and indispensable component in the unyielding fight against terrorism, necessitating the need to surmount these barriers and foster a robust atmosphere of cooperation to enhance regional security efforts. At this critical juncture, the Horn of Africa region demands a fortified and cohesive effort, wherein intelligence agencies and policymakers unite in their resolve to confront the mounting threat posed by Al-Shabaab and other terrorist entities. Fortifying the intelligence-policy maker relationship is of paramount significance to develop a unified, proactive, and data-driven approach in countering terrorism effectively. By fostering transparency and accountability in intelligence practices, agencies can cultivate trust with policymakers, ensuring that timely and accurate information reaches decision-makers. Embracing the 'responsibility to provide' norm, intelligence entities can proactively engage in sharing vital intelligence, thereby fostering a collective understanding of the threat landscape and facilitating the formulation of comprehensive strategies accordingly.

Moreover, academic engagement and knowledge-sharing between intelligence agencies and scholarly circles will invigorate evidence-based policymaking. This symbiosis can generate novel insights into counter-terrorism efforts, yielding more effective and targeted responses. Addressing political interference within intelligence processes is imperative to preserve the objectivity and integrity of intelligence assessments, thereby ensuring that decisions are founded on credible analysis rather than expediency. Furthermore, regional cooperation mechanisms must be fortified to effectively combat the transnational nature of terrorism. Regular intelligence-sharing meetings, joint training exercises, and coordinated operations among intelligence agencies from different nations will bolster regional collaboration, leading to a more formidable and unified front against terrorist threats. Through collective endeavors, the Horn of Africa region can harness the full potential of intelligence to counter terrorism, safeguard civilian lives, and foster enduring peace and stability.

Therefore, this study serves as a valuable scholarly reference for comprehending the multifaceted dimensions of the intelligence-policy maker relationship within the Horn of Africa's counter-terrorism landscape. By recognizing the critical role intelligence plays in shaping counter-terrorism strategies and acknowledging the impediments to cooperation, this study has laid the foundation for concrete and actionable recommendations. Empowering intelligence agencies to operate transparently, fostering academic collaboration, and enhancing regional cooperation will pave the way for a more secure and resilient Horn of Africa region. In the face of ever-evolving terrorist threats, unwavering commitment to intelligence reform, collaboration, and evidence-based policy-making stands as the cornerstone in steering the region towards enduring peace, prosperity, and security...

Based on the findings and conclusions of this study, the following detailed recommendations are proposed to strengthen the intelligence-policy maker relationship and improve counter-terrorism efforts in the Horn of Africa region:

**Enhance Transparency and Accountability:** Governments in the region should prioritize transparency and accountability within their intelligence agencies. Initiatives to promote openness about agency size, operations, and funding should be instituted, and mechanisms for oversight by senior politicians and civil servants should be established. Transparency measures will foster trust and confidence in intelligence agencies, contributing to more effective counter-terrorism strategies. Additionally, an annual public report on the intelligence community's activities can enhance transparency and inform citizens about the agencies' contributions to national security.

**Embrace Intelligence Sharing and Collaboration:** The 'responsibility to provide' norm should be widely embraced among intelligence agencies. Governments must encourage and facilitate information-sharing and cooperation between agencies. The establishment of joint centers, modeled after successful examples like the National Counter-terrorism Center (NCTC) and Joint Counter-Terrorism Analysis Center (JCTAC), should be pursued to enhance collaboration and information exchange among various state agencies involved in counter-terrorism efforts. Furthermore, the creation of regional intelligence-sharing platforms and forums can foster real-time communication and data sharing, enabling a coordinated response to emerging threats.

Promote Academic Engagement and Knowledge Sharing: Governments and intelligence agencies should actively seek to engage with academia. By sharing classified information with scholars possessing appropriate security clearances, a more robust understanding of intelligence practices can be fostered. This collaboration will contribute to the development of evidence-based and effective policies and strategies in countering terrorism. Furthermore, establishing research partnerships between intelligence agencies and academic institutions can encourage data and goal driven policy development and contribute to the growth of intelligence studies as a respected academic discipline within the region.

Address Political Interference: To ensure the objectivity of intelligence analysis, governments must safeguard intelligence agencies from undue political interference. Agencies should be shielded from partisan influence, and their role in providing objective and unbiased assessments must be prioritized. Policymakers should heed intelligence recommendations based on credible analysis and not allow intelligence assessments to be manipulated for political gain. Implementing comprehensive codes of conduct for intelligence officers and policymakers can serve as a safeguard against politicization and maintain the integrity of intelligence assessments.

Strengthen Regional Cooperation Mechanisms: Governments within the Horn of Africa region should enhance regional cooperation frameworks to address cross-border security challenges posed by terrorism. Regular intelligence-sharing meetings, joint training exercises, and coordinated operations should be facilitated among regional intelligence agencies. This collective approach will foster a unified response to the common threat posed by groups like Al-Shabaab. Additionally, establishing a regional intelligence liaison office that fosters constant communication and collaboration between intelligence agencies can enhance information flow and bolster joint operations in countering terrorism.

Moving forward, the Horn of Africa region must adopt a comprehensive and coordinated approach to counter-terrorism that recognizes the unique intelligence dynamics at play. Emphasis should be placed on fostering an intelligence-policy maker relationship founded on trust, transparency, and collaboration. Addressing the 'so what' of this study necessitates concrete actions to bridge the gaps between intelligence assessments and policy-making decisions.

By implementing the proposed recommendations, the Horn of Africa region can bolster its collective efforts in countering terrorism and curbing the influence of groups like Al-Shabaab. An informed and cooperative approach to intelligence will enhance regional security, safeguard civilian lives, and contribute to the broader stability and development of the Horn of Africa. The challenge ahead lies in translating the insights of this study into practical policies and actions that promote a safer and more secure region for all. As regional dynamics continue to evolve, ongoing commitment to intelligence reform and collaboration will be crucial in sustaining progress in countering terrorism and fostering peace and stability within the Horn of Africa. The journey towards a more secure and resilient region requires the collective efforts of governments, intelligence agencies, academia, and international partners to confront terrorism's root causes and effectively mitigate the threats it poses. By strengthening intelligence capacities, enhancing regional cooperation, and fostering evidence-based policy-making, the Horn of Africa can forge a united front against terrorism, ensuring the safety and well-being of its citizens and contributing to regional and global security.

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## EXAMINING STRATEGIES FOR PREVENTING RISKY SEXUAL BEHAVIORS AND TEENAGE PREGNANCIES AMONG TEENAGE MOTHERS IN KAJIADO COUNTY, KENYA

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**Abstract:** *This study aimed to explore strategies for preventing risky sexual behaviors and teenage pregnancies among teenage mothers in public secondary schools in Kajiado County, Kenya. The study adopted a concurrent mixed-method with a sample population of 340 participants, 298 teenage mothers, 20 parents and 22 high school Heads of counselling department. Two sub counties were selected based on the increased cases of teenage pregnancy. The study used census sampling technique to select 298 teenage mothers from the schools in Kajiado North and Kajiado west sub-counties. Systematic sampling was used to select parents on the list of the cases recorded at the sub-county offices and counseling teachers was automatically be include from 22 schools. The study employed a modified Parenting Style Four-Factor Questionnaire and interview schedule to measure parenting styles as perceived by the teenagers. The Adolescent Clinical Sexual Behaviors Inventory (ACSBI-S) tool was adopted to collect the respondents' data on teenage sexual activities. Data from the semi-structured interview guides were coded and analyzed using thematic analysis and presented in verbatim. Pearson correlation was used to test relationships between independent and dependent variables. The study concluded that preventing risky sexual behaviors and teenage pregnancies among teenage mothers necessitates a comprehensive approach that encompasses comprehensive sex education, access to contraception, parental involvement, peer support, empowerment, addressing gender inequality, and collaborative partnerships. Implementing evidence-based strategies within a supportive environment can empower teenage mothers, reduce the risk of subsequent pregnancies, and promote the well-being of both mothers and children.*

**Keywords:** *preventing risky sexual behaviors, teenage sexual behaviors, risky sexual behaviors, teenage pregnancies prevention, teenage pregnancies, teenage mothers*

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### INTRODUCTION

Adolescent sexual behaviors and teenage pregnancies are significant global public health concerns that have long-lasting implications for the well-being of young mothers and their children. The prevalence of sexual behaviors and teenage pregnancies remains substantial, particularly in low- and middle-income countries where access to sexual and reproductive health services is often limited (UNFPA, 2020; WHO, 2021). Teenage mothers face various health risks, including increased maternal mortality rates, preterm birth, low birth weight, and obstetric complications (WHO, 2021). Furthermore, children born to teenage mothers often experience adverse health and developmental outcomes and are at higher risk of poverty and limited

opportunities (UNFPA, 2020). Therefore, it is crucial to develop effective strategies to prevent and address the challenges associated with sexual behaviors and teenage pregnancies among teenage mothers.

Comprehensive sex education programs have been recognized as a crucial strategy in preventing sexual behaviors and teenage pregnancies among adolescents. Such programs provide accurate information on reproductive health, contraception, sexually transmitted infections (STIs), and healthy relationships (Santelli et al., 2017). They empower young people to make informed decisions about their sexual health, promote responsible sexual behaviors, and help them understand the consequences of their actions. Comprehensive sex education programs have been associated with delayed sexual initiation, increased knowledge about contraception, and improved attitudes towards condom use (Kirby et al., 2007; Haberland & Rogow, 2015). For example, a systematic review conducted by Haberland and Rogow (2015) found that comprehensive sex education programs were associated with delayed sexual debut, increased knowledge about contraception and STIs, and improved condom use.

In addition to comprehensive sex education, access to contraception is a vital strategy in preventing teenage pregnancies. Ensuring the availability, affordability, and youth-friendly access to a wide range of contraceptive methods, including condoms, oral contraceptives, and long-acting reversible contraceptives (LARCs), can help reduce unintended pregnancies among teenagers (Wellings et al., 2016; Bearinger et al., 2019; Oringanje et al., 2016). Accessible contraceptive services should include confidential counseling, information on various contraceptive methods, and the provision of contraceptives tailored to adolescents' needs. Studies have demonstrated that increased access to contraception is associated with lower teenage pregnancy rates (Wellings et al., 2016; Oringanje et al., 2016). Study by Bearinger et al. (2019) has also demonstrated that increased access to contraception is associated with lower teenage pregnancy rates. In their observation, Bearinger et al. (2019) revealed that improved access to contraception was linked to reduced teenage pregnancy rates. It is essential to address barriers to access, such as cost, stigma, lack of knowledge, or unavailability of services, in order to ensure that adolescents can make informed choices about their reproductive health.

Peer education programs have demonstrated effectiveness in promoting positive sexual health behaviors among adolescents. Peer educators, who are trained to engage with their peers, can provide accurate information, share personal experiences, and foster discussions on healthy relationships and responsible sexual behaviors (Mason-Jones et al., 2016). Peer-led interventions have been associated with increased knowledge about sexual health, improved attitudes towards condom use, and increased intentions to use contraception (Mason-Jones et al., 2016). Peer support groups can also play a vital role in providing emotional support, information, and resources to teenage mothers, helping them navigate the challenges of early motherhood (Gillen & Lefkowitz, 2012). Albert et al. (2019) also observed that a peer-led sexual health program was effective in improving knowledge, attitudes, and communication skills among Hispanic adolescents.

Parental involvement and support play a critical role in preventing teenage pregnancies and promoting healthy sexual behaviors among adolescents. Open and ongoing communication between parents and teenagers about sexual health enables adolescents to make informed

decisions and seek guidance (Miller et al., 2019; Guilamo-Ramos et al., 2017). Research has shown that parental monitoring, support, and discussions about sex are protective factors against early sexual debut and risky sexual behaviors among teenagers (Guilamo-Ramos et al., 2017). A longitudinal study by Guilamo-Ramos et al. (2017) found that parent-adolescent communication about sex was associated with delayed sexual initiation and increased condom use among Latino youth. Cultivating supportive family environments that provide accurate information, promote healthy attitudes towards sex, and encourage dialogue can positively influence adolescents' behaviors and decision-making processes (Sieving et al., 2017).

Addressing underlying gender inequality and harmful social norms is vital in preventing sexual behaviors and teenage pregnancies among teenage mothers. Gender norms and stereotypes can shape adolescents' perceptions of sexuality, relationships, and gender roles, thereby influencing their sexual behaviors and contraceptive use (Chandra-Mouli et al., 2017). Efforts to promote gender equality and challenge traditional gender roles can empower young girls and boys to make informed choices about their sexual and reproductive health. Gender-transformative interventions that aim to challenge harmful gender norms have been associated with reduced sexual risk behaviors and teenage pregnancies (Doyle et al., 2018; Dartnall et al., 2019). For instance, a study by Dartnall et al. (2019) found that a gender-transformative intervention reduced intimate partner violence and increased condom use among adolescent girls in South Africa.

While significant progress has been made in understanding and implementing strategies to prevent sexual behaviors and teenage pregnancies among teenage mothers, several research gaps remain. Further research is needed to evaluate the long-term impact of comprehensive sex education programs, explore barriers and facilitators to accessing contraception, assess the effectiveness of peer education programs, investigate the role of parental involvement, and address gender inequality and harmful social norms. As such, the current study intended to examine the strategies towards preventing risky sexual behaviors and teenage pregnancies among teenage mothers in Public Secondary Schools, Kajiado County, Kenya.

## METHODOLOGY

### Study Design

The study used mixed method specifically concurrent design. The convergent parallel method design was useful in this study because it helped to collect simultaneously the quantitative and qualitative data from the same respondents. The assumption for this method was that what was not captured by the quantitative approach will be picked by the qualitative approach and vice versa. Concurrent design was useful for this research because the integration of qualitative and quantitative data is used to create an excellent insight beyond the information provided by either quantitative or qualitative data, therefore the design was used to overcome the weakness of either method with the strength of the other (Creswell (2018; Ngumbi (2015). For quantitative research the study employed cross-sectional study. Cross-sectional study design is a type of observational study design. In a cross-sectional study, the investigator measures the outcome and the exposures in the study participants at the same time. This design was open and responsible for magnificent data collection from the respondents (Setia, 2016).

The qualitative dimension was approached using phenomenology. This is because it afforded the researcher “a wealth and depth of information which is not usually afforded by other methods” (Astalin, 2013). Among the hallmarks of phenomenology, as with any other qualitative design, is its concern with a rich and vivid description and chronological narrative of facts and events relevant to the case (Cohen, Manion, & Morrison, 2013). Not only does it enhance quantitative approaches, it allows for an in-depth appreciation of the phenomenon under investigation from the research participants’ perspective in light of the particular institutional and cultural context – aspects which would be lost if conclusions are drawn based on quantitative methods alone (Palmer & Bolderston, 2018).

### Target Population

The study targeted all pregnant and teenage mother students in public secondary schools, teacher counselors and parents in Kajiado North and Kajiado west sub- Counties. The total number of public secondary schools in the two sub counties in Kajiado County stands at 22 secondary schools (CEO, 2020). According to the records at the county education office the girls who were reported to be pregnant in the year 2021 were 298 girls (Kurgat Marindany, 2021). Therefore, the target population was 298 students, 22 parents and 22 teacher counselor from the 22 public schools. Research used targeted group of participants in public secondary schools because it would be difficult to find these teenagers at home because some may have gone too far schools while others may have been married.

### Sampling Procedures and Sample Size

In order to obtain a representative sample, different techniques were used.

The students from the sub county selected were selected using census technique because the study was only targeting the teenagers who are mothers or the pregnant one. A census is an attempt to gather information about every member of some group, called the population (Singh, and Masuku, 2014). This means all the participants in the two sub counties were used.

The parents were purposively sampled. The sample size of parents and teacher counselors was 30% of their respective target population. Each group consisted of 6 participants. Purposive sampling was used to get 6 parents because of the limited resources and time of getting all the parents. Also, most of the data required was given by the teenagers so a small sample of parents was required to spice up the data from the teenagers.

Table 1  
Sampling matrix

Category of Respondents	Target Population	Sample size	Sampling Technique
Students	298	298	Census
Parents	22	6	Systematic
Teacher counsellors	22	6	Automatic inclusion
Total		334	

### Data Collection Instruments

The study employed three data collection instruments: general information questionnaire, a modified parenting style four-factor questionnaire (PSFFQ), Focused group guide and interview guide. Primary data was collected through questioning and interviewing respondents. Both self-administered questionnaires and interview guides were used. Close ended questions were used to collect data from 298 students for the quantitative data after which they were again put into groups for discussion.

The Adolescent Clinical Sexual Behaviors Inventory - Self Report (ACSBI) was also an indispensable tool for the study. The screening tool was crafted to allow assessment of sexual related behaviors within diverse clinical populations. The ACSBI has found immense relevance when assessing the sexual interest, sexual risk taking, sexual avoidance and discomfort, and conformity to sexual behaviors. It is a vital tool in devising intervention measures for detrimental behaviors. The tool is based on the Child Sexual Behaviors Inventory (CSBI), which is extensively used in analyzing sexual behaviors among children aged between 2 and 10.

### **Data Analysis Procedure**

Collected data was checked to ensure that it completed, accurate and reasonable. This is to improve on quality through data cleaning and correction of detected errors and omissions. Quantitative data was organized and analyzed depending on the categorization of the research questions using descriptive statistics such as frequency tables, means and standard deviations. Descriptive statistics was used because it details the lived experiences in depth, it is simple to understand and easier to make the results known to a variety of readers (Kothari,2012). Qualitative data was analyzed by arranging responses obtained in the study according to the research questions and objective of the study for content/ thematic analysis (Kothari & Garg, 2019). Thematic analysis (TA) was employed to classify forms of meaning across a dataset that responds to the research question addressed. Statistical Package for Social Science (SPSS) version 24.0 helped analyze collected data and then present in frequencies and percentages and summarize in tables and figures. Correlation analysis was used to test the relationship between variables: Parenting styles and teenage pregnancies.

## **RESULTS**

### **Demographic Characteristics of the Respondents**

Regarding the class of the students, slightly more than a third (38%) of the respondents who took part in the study were in form one, 25.3% of them were from form four, these shows that the majority of the teens who were mothers were from form ones and fours compared to the form threes who made up for 19.5%. Similarly, the number of form twos were low with a percentage of 17.2%.

With reference to the age bracket, less than a third (28.5%) of the students who took part in the study were 16 years old. This was attributed to the age at which most of the participants are either in form three or four and this is usually the age where they have perfected the art of sexual relationships. Only 24.4% of the students were 17 years of age. The least percentage of the age group of students who took part in the study was 9%. The students from this group were of 14 years of age.

Category of school was also another factor that was assessed in this study. It was found that majority (62.4%) of the students in the quantitative aspect of the research study were from mixed day.

With Regards to the person (s) the students stayed with at home, more than a half (57%) of the students who took part in the study stayed with both parents. Those with single mothers were 23.5%, while those with single fathers were represented by 3.2%.

Regarding the gender distribution of the teachers, there was equal distribution, where 3 teacher councilors were male, while the remaining 3 were female. With reference to the age brackets of teacher councilors, 5 of them were of the age bracket of between 43-45 years. Only 1 of them were above 50 years of age. Regarding the educational background of the respondents, there was an equal distribution of 2 respondents per education level, including 2 from masters, 2 from bachelor's degree and 2 from diploma level. When asked about their years of experience in the field of counseling, 3 of the teacher councilors ranged between 7-10 years of experience, the remaining 3 ranged between 11-15 years.

Regarding the gender distribution of parents/ Guardian who took part in the study, 4 of them were female, while 2 of them were male. When asked about their age bracket, those between the ages of 36-40 years was 1. Those whose age bracket ranged from 41-45 years were 2, while those who were of the age bracket of 46 and above were 3 parents/guardians. Regarding the demographic characteristics of parents/ guardians, the characteristics sought included educational background of the parents, the occupation, whether they had communication with their children and their marital status. About the educational level, 5 parents had attained tertiary education level, while only 1 had attained secondary school educational level. With reference to occupation, 3 of the parents were business men and women, 2 of them, while only 1 was a farmer. Students whose parents were in business were the majority and this could be attributed to the fact that maybe they spent much of the time away from family which contributed to them being unavailable to guide their children. Regarding communication, discussions about sex amongst parents and their children were scarce and often took place well after their sexual debut. About their marital status, 1 of the parents was married, 2 divorced, 2 single and only 1 widowed.

## Strategies for Preventing Risky Sexual Behaviors and Teenage Pregnancies among Teenage Mothers in Public Secondary Schools

### *Students’ response on strategies for preventing risky sexual behaviors among students*

The study sought to examine strategies for preventing sexual behaviors and teenage pregnancies among teenage mothers in public secondary schools. Table 2 shows students’ response on strategies for preventing risky sexual behaviors among students

Table 2

*Students’ response on strategies for preventing risky sexual behaviors among students*

Statement	Not True		Somewhat true		Very true		True	
	f	%	f	%	F	%	F	%
Comprehensive Sex Education programs has not been fully implemented in public secondary schools	112	50.7	79	35.7	29	13.1	1	.5
Access to sexual and reproductive health services, including contraceptives, are very poor in public secondary schools.	98	44.3	59	26.7	64	29.0	-	-
Peer education programs focusing on responsible sexual behavior and pregnancy prevention are often done in our school	141	63.8	35	15.8	45	20.4	-	-
The school curriculum has been including topics related to sexual health, reproductive rights, and family planning in our school	150	67.9	41	18.6	30	13.6	-	-
In our school, counseling services for teenage mothers have been made mandatory to support them in making informed decisions about their sexual health	184	83.3	27	12.2	10	4.5	-	-
Our teachers and school staff normally receive training on addressing issues related to teenage pregnancies and sexual behaviors	126	57.0	50	22.6	45	20.4	-	-
Public awareness campaigns about the consequences of early sexual behaviors and teenage pregnancies should be organized in the community	53	24.0	47	21.3	120	54.3	1	.5
Our school receives resources and funding to support comprehensive sexual health education programs	94	42.5	65	29.4	62	28.1	-	-

According to the responses, 50.7% of the participants believe that comprehensive sex education programs have not been fully implemented, while 35.7% somewhat agree with this statement,

and 13.1% strongly agree or believe it to be true. Only 0.5% of the participants strongly believe that comprehensive sex education programs have been fully implemented in their schools. Slightly less than a half (44.3%) of respondents reported that access to sexual and reproductive health services, including contraceptives, is very poor in their schools. Additionally, 26.7% somewhat agree with this statement, and 29.0% believe it not to be true.

The responses indicate that 63.8% of the participants believe that peer education programs focusing on responsible sexual behavior and pregnancy prevention are often conducted in their school. Furthermore, 15.8% somewhat agree with this statement, and 20.4% believe it to be not true.

According to the findings, 67.9% of the participants believe that the school curriculum includes topics related to sexual health, reproductive rights, and family planning. Additionally, 18.6% somewhat agree with this statement, and 13.6% believe it to be not true.

The majority of respondents (83.3%) reported that counseling services for teenage mothers have been made mandatory in their school to support them in making informed decisions about their sexual health. Additionally, 12.2% somewhat agree with this statement, and 4.5% believe it to be not true.

The findings indicate that 57.0% of the participants believe that their teachers and school staff do not receive training on addressing issues related to teenage pregnancies and sexual behaviors. Moreover, 22.6% somewhat agree with this statement, and 20.4% believe it to be true.

According to the responses, 24.0% of the participants believe that public awareness campaigns about the consequences of early sexual behaviors and teenage pregnancies should be organized in the community. Additionally, 21.3% somewhat agree with this statement, 54.3% believe it to be not true.

Nearly a half (42.5%) of respondents reported that their school does not receive sufficient resources and funding to support comprehensive sexual health education programs. Furthermore, 29.4% somewhat agree with this statement, and 28.1% believe it to be not true.

### **Teachers and Parents Response on strategies for preventing risky sexual behaviors among students**

The study sought to find out the strategies that could be helpful in preventing the sexual behaviors that lead to teenage pregnancy among teenage mothers in Kajiado County. Qualitative data was used to collect views on strategies for preventing sexual behaviors and teenage pregnancies among teenage mothers from teachers, parents and students. Participants' responses were as summarized below.

During interview, one of the teachers who participated in the study reported the following in relation to what role schools can play in preventing sexual behaviors and teenage pregnancies among teenage mothers: “Schools act as social vaccine in preventing adolescent sexual and reproductive health (SRH) harms, risky sexual behaviors including pregnancy” (TC1, 2022).

The major role of the school in providing a safeguarding role was comprehensive Sex Education. One of the teachers from the council had the following to say:

Our school provides comprehensive sex education programs that equip our students with accurate information about sexual health, contraceptives, and the consequences of risky sexual behaviors. This education provides empowerment to students and enables them make informed decisions, reducing the likelihood of unintended pregnancies and sexually transmitted infections (TC1, 2022).

Another teacher counselor had the following to say:

We collaborate with community organizations and healthcare providers to ensure that teenage mothers have access to comprehensive support services, including counseling, parenting programs, and healthcare resources (TC3, 2022).

Girls’ experiences of sex education in school were largely limited to moral and religious admonitions to abstain from sex. Some had not received any form of sex education. Others had received some semblance of sex education (at least with the inclusion of condom use), but either this had taken place after they had become pregnant or they had had no access to condoms. One girl received some sex education from a counseling teacher during the usual counseling sessions. Another role that emerged was that the school offered a supportive environment for teenage mothers. During an interview with the teachers, the following was brought up by one of them

Our school strives to create a supportive environment for teenage mothers by providing resources, counseling services, and flexible educational programs that accommodate their unique needs (TC2, 2022).

TC4 also had the following to say:

Teachers and staff are trained to be understanding and sensitive to the challenges faced by teenage mothers. We provide them with guidance, encouragement, and resources to help them navigate their educational journey while balancing their parenting responsibilities (TC4, 2022).

Another teacher had the following to say

Our school encourages open dialogue about sexual and reproductive health, creating a safe space for teenage mothers to ask questions, seek guidance, and access the necessary support they need (TC6, 2022).

While the school played a critical role in provision of conducive environment for the teenage mothers, some parents and students felt that the environment in which they/their children studied was not conducive and ideal for their children. In the discussion, one of the parents had the following to say:

.... if I was having a good job I would take my daughter to a boarding school at least I protect her from the motorcycle riders who pick and drop her to the school. Day school is a bad influence because girls are never monitored when going to school and coming back in the evening (Parent 6)

The view was also observed by one of the students from the FGD who had the following to say:

If my mother had enough money I know I would not be in a day school and for sure there are some friends I would not be keeping. I know she would buy me good clothes and provide all that I need (FGD)

When asked about their views on access to resources, one of the teachers had the following to say:

Teachers and staff are trained to be understanding and sensitive to the challenges faced by teenage mothers. We provide them with guidance, encouragement, and resources to help them navigate their educational journey while balancing their parenting responsibilities (TC3, 2022).

Further, one of the teachers had the following to add

We recognize that each teenage mother has unique circumstances, and we work closely with them to develop personalized educational plans that accommodate their needs while ensuring they receive a quality education (TC1, 2022)

On peer pressure and peer education, some teachers had different views. Teacher 3 had the following to say:

Peer support is essential for teenage mothers, and we facilitate the formation of support networks where they can connect with other students who understand their experiences and provide emotional support (TC3, 2022).

Majority of the teenage mothers said that they had a lot of pressure to have a boyfriend and that since everybody in class had a boyfriend. Others believed that they could use their menstrual cycle to prevent pregnancy since some said it is practically impossible not having a boyfriend since it is the current trend. However, they had very limited knowledge about their menstrual cycle and its use in pregnancy prevention.

On access to contraception and reproductive healthcare, the respondents had an idea on the availability but lacked information on the usage. Most of the teenage mothers indicated that they had heard about condoms before their pregnancies. Most mentioned that condoms could protect against pregnancy and diseases. However, whether they knew how to use condoms was much less clear – while one girl clearly claimed she knew how to use condoms, others seemed to have no idea. Some of the young women seemed only to have heard about condoms without any clear picture of what they looked like. One girl did not even know that one can get pregnant without using condoms. Even though some young women stated that they knew about family planning, it seemed they had either only heard of ‘family planning’ or knew about it in a very general way. Most of the young women’s knowledge of family planning methods was limited to injectable methods.

When asked about their views on media literacy, one of the parents had the following to say:

By developing media literacy skills, teenage mothers can critically analyze and interpret the messages conveyed by the media, discern fact from fiction, and make informed choices that align with their values and aspirations. Media literacy empowers them to challenge stereotypes, cultivate positive body image, understand healthy relationships and consent, access reliable information, and create their own media narratives (TP4, 2022).

TP3 also had the following to say:

By integrating media literacy education into their support systems, teenage mothers can develop the skills necessary to navigate the complex landscape of media representations of sexuality. This can help them make informed decisions, challenge societal norms, and develop a positive and empowered understanding of their own sexuality (TP3, 2022).

TP6 also had the following to say

Media literacy has been enabling my daughter to recognize and critique portrayals of consent and healthy relationships in the media. Through this, she has been able to develop a healthier understanding of what constitutes healthy, consensual relationships, and discern between real-life dynamics and potentially harmful or unrealistic media representations (TP6, 2022).

## DISCUSSION

Schools play a crucial role in safeguarding and addressing sexual behaviors among teenage mothers. As educational institutions, schools have the opportunity to provide comprehensive sex education, create a supportive environment, and offer resources and support services that can help prevent and address sexual behaviors and teenage pregnancies among teenage mothers. Schools can foster a supportive environment where students feel comfortable discussing sexual health matters and seeking guidance. To add on the study findings, a study by Allen and White (2013) indicated that positive teacher-student relationships played a crucial role in supporting teenage mothers. Teachers who demonstrated understanding, empathy, and provided individualized support were more likely to foster engagement, motivation, and academic success among teenage mothers. Research by Ream, Bere, and Blackburn (2012) also emphasized the importance of emotional support and mental health services for teenage mothers. Schools that offered counseling, mental health resources, and a safe space for sharing experiences reported improvements in mental well-being, reduced stress levels, and enhanced coping strategies among teenage mothers.

Comprehensive sex education programs implemented in schools are an effective strategy for promoting healthy sexual behaviors and reducing the incidence of teenage pregnancies. These programs provide accurate information on reproductive health, contraception, STIs, and healthy relationships (Jemmott et al., 2019). By equipping students with knowledge and skills, comprehensive sex education empowers them to make informed decisions about their sexual

health and engage in responsible behaviors. Schools should ensure that sex education curricula are evidence-based, inclusive, and address the specific needs of teenage mothers. Additionally, school-based programs should focus on building skills such as communication, negotiation, and assertiveness, which can help teenage mothers make informed choices about their sexual and reproductive health (Kirby et al., 2007). Moreover, schools can create a supportive environment that promotes positive sexual health behaviors and reduces the risk of teenage pregnancies. This can be achieved through the development of policies and practices that foster a safe and inclusive atmosphere. Schools should establish clear guidelines on respectful relationships, consent, and non-discrimination, promoting a culture of respect and gender equality. Creating a safe space for open dialogue and discussions about sexual health can help teenage mothers feel comfortable seeking information, guidance, and support from trusted adults within the school community (Gavin et al., 2010). Schools can also establish peer support networks or mentoring programs to provide additional emotional support and guidance for teenage mothers.

In addition to promoting healthy sexual behaviors, schools can offer targeted support services for teenage mothers. This may include access to reproductive health services, counseling, and referrals to community resources. School nurses or counselors can play a vital role in providing confidential support, addressing the specific needs and concerns of teenage mothers, and connecting them with appropriate services. By offering comprehensive support, schools can help teenage mothers navigate the challenges they may face, including balancing education and parenting responsibilities (Sadowski et al., 2010). Supportive measures such as flexible school schedules, childcare facilities, and access to parenting classes can also help teenage mothers continue their education and improve their overall well-being.

It is important to note that schools should collaborate with parents, community organizations, and healthcare providers to ensure a comprehensive and coordinated approach to safeguarding against sexual behaviors among teenage mothers. By working together, these stakeholders can provide consistent messaging, reinforce protective factors, and address the underlying factors that contribute to sexual behaviors and teenage pregnancies. From the qualitative data collected, the student mothers said using condoms was the way to control pregnancy because majority stated that staying without a boyfriend is practically impossible. Some had used condoms before, but such usage was irregular. Reasons mentioned for not using or inconsistently using condoms included the non-availability of condoms at the point of need, being confused at the point of sexual intercourse, being unaware that the boy was not using condoms, being unable to negotiate condom use, the boy promising to marry them or the girl wanting to marry the boy, or 'it just happened'. Some of the young women cited the boy complaining about not getting enough feeling with condoms, needing to prove fertility after an STI infection, the 'need to have a child for her father', or trust in the partner as reasons for not using condoms resulting in pregnancies. None of them had been using other family planning methods. So, they advocated for the use of condoms to stop pregnancy.

In Ghana, Hindin, McGough, and Adanu (2014) reported similar barriers to condom use, including shyness in buying contraceptives, the cost of contraceptives, and non-youth friendly health services being barriers to access. Youth in schools therefore need to be taught skills that make it possible for them to earn a comfortable living outside the sex trade. They should be encouraged to conduct themselves with dignity by seeking alternative means to earn a living

rather than reducing themselves to sex objects, (Wanyonyi, 2014). One of the students from the FGD added the following to beef up what had been sad.

Some young women also had a perception that family planning would lead to infertility and therefore were not positive about it. Some girls did not consider abortion as a good option for their pregnancy. Various reasons for this were given, including the fear of destruction of the womb or death: After going through pregnancy and childbearing, some young women did not want to get pregnant again, some indicated that sex was no longer important to them because of the painful first-time sex experience, pregnancy having led to their dropping out of school, and embarrassing negative beliefs associated with sex. Concerning normative beliefs towards teenage sex in general, several young women shared their perception of how important others in their lives expected them to behave sexually; for example, mothers or teachers expecting them to abstain from (Krug, Mevissen, Munkel, & Ruiters, 2017).

Regular assess the effectiveness of prevention programs and interventions through monitoring and evaluation are also recommended. This is done through data collection on teenage pregnancy rates, sexual behaviors, and the impact of interventions to identify areas for improvement and inform future strategies. While these strategies have shown promise in preventing sexual behaviors and teenage pregnancies among teenage mothers, it's important to note that the effectiveness may vary depending on cultural and contextual factors. Ongoing research and evaluation are crucial to identifying the most effective interventions for this population.

## CONCLUSIONS

Preventing sexual behaviors and teenage pregnancies among teenage mothers necessitates a comprehensive approach that encompasses comprehensive sex education, access to contraception, parental involvement, peer support, empowerment, addressing gender inequality, and collaborative partnerships. Implementing evidence-based strategies within a supportive environment can empower teenage mothers, reduce the risk of subsequent pregnancies, and promote the well-being of both mothers and children. By prioritizing these strategies, societies can strive towards a future where teenage pregnancies become a rarity, enabling young girls to thrive and reach their full potential.

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## HUMAN ACTIVITIES AND SUSTAINABLE MANAGEMENT OF SIO-RIVER WETLAND IN NAMBALE SUB-COUNTY, BUSIA COUNTY, KENYA

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**Abstract:** *Wetlands are important natural resources and their functions within an environment cannot be over emphasized. Wetlands normally vary in size, distribution, type and functions. They are unique; however, changes have affected their roles, functions, quality and quantity. This study aimed at examining the impact of human activities on the sustainable management of Sio-River wetland in Nambale Sub-County. To effectively achieve these objectives, mixed approach involving cross-sectional research design was used. Data was collected between the month of March and May, 2023. Cluster sampling, simple random sampling and purposive sampling methods were used to select the 400 inhabitants from a target population of 80,830. Specifically, cluster and simple random sampling was used to select householders while purposive sampling on the local chiefs and the environmentalists. Primary data was collected through questionnaires, observation, interview guides and Geographical Information Systems and Remote Sensing, maps and photographs while journals, print materials, internet, theses and dissertations collected secondary data. Quantitative data was analysed using Statistical Package for Social Sciences (SPSS Ver. 21) and presented in various graphs, charts and tables. Qualitative data was thematically analysed. Results showed that human activities, more so, agriculture degraded the wetlands by 80%. It therefore concluded that there was no balance between human activities and sustainable management of Sio-River Wetland due to irresponsibility of local community, inadequate policies and laws and lack of integrated approach in management. In this aspect, this study recommends rehabilitation and restoration of fragile ecosystems, allocation of funds for research and development and adoption of integrated approach in wetland management to enhance sustainability of wetlands in Nambale Sub-County and other parts of the world. Areas of further research entail replication of this study in other areas for effective generalisation and participatory management of wetland resources to add more knowledge on to what is in existence.*

**Keywords:** *River Sio Ecosystems, Wetlands ecosystem, Human activities impact, Sustainable management, Sio-River Sustainability, Rehabilitation, Resources*

## INTRODUCTION

Globally, wetlands are estimated to occupy 1.21 billion hectares of the earth surface as indicated in the world wetlands (Xu et al., 2019; Nayak & Bhushan, 2022 pp. 1-6). Wetlands are important and valuable resources throughout the world due to the varied goods and services (Ahmad et al., 2019). For instance, wetland goods are categorized as; provisioning, regulating, cultural and supporting while key services include; climate change mitigation, shoreline mitigation, flood control, ground water recharge, water purification, carbon sequestration and biodiversity protection (Millennium Ecosystem Assessment, 2005). The researcher opines that the situation is not different in Nambale, because wetlands had been the main source of livelihood to most of the residents, this was evident by the sugarcane and rice farming practice in the area which was facilitated by the presence of wetlands, of which the absence of the same could alter the residents' livelihood situation.

Despite wetland benefits to the ecosystem, they are increasingly facing threats of degradation and continue to reduce in quality and quantity (Global Outlook Report, 2018). Worldwide, sometimes wetland loss and degradation are experienced at extremely high rates. Empirically, 35% of wetlands have been lost between 1975 to date (Global Wetland Outlook, 2018). In addition, developed countries such as North America, South America and Asia have experienced about 53% wetland loss due to human activities, high population and high poverty levels (Global Wetland Outlook, 2018). It has been culminated with effort to search for agricultural land, grazing land infrastructural development, settlement and construction materials.

Likewise, Europe's wetlands vary ranging from bogs, fens and riverine that occurs on the streams and rivers. They are valued for their biodiversity and ecosystem services (Bhowmik 2020). Despite of the benefits, at least 80% of wetlands have disappeared amidst protection measures put by the Ramsar Convention, European Union and National legislation thus the need for sustainability. Tomscha et al. (2021) suggested that multiple wetland restoration be enhanced for wetland sustainability. However, in regard to Sio River wetland, the sustainable management practices so far put in place seem scarce and inadequate. Moreover, Africa as a continent is endowed with wetlands ranging from riverine, saline, brackish coastal and marine areas along the coastline and occupies 4.7% of African's continental area (Rebelo & McCartney 2019). Riverine wetlands are found in the riverine systems of Nile, Zaire, Zambezi and Nile providing a lot of benefits. Despite their benefits, about 35% of African countries wetlands are exposed to human encroachment (Kabii, 2022). This is attributed to high population growth and economic development (Rebelo and McCartney, 2019). On that basis, population within the world is gradually growing resulting to over-use of the available Sio River wetland resources.

Furthermore, research exhibits that the total numbers of Ramsar sites have reduced tremendously despite the benefits provided to people and the environment. About 17% of river wetlands have been changed into non wetlands due to human activities (Xu et al., 2019). This is linked to high population and illegal human activities. For example, the Democratic Republic of Congo (DRC) which is known of having large area of Ramsar sites is threatened by civil wars and political unrest (Ramsar, 2018). Similarly, the Okavango Delta System (Botswana), a Ramsar wetland in the world faces threats from fires and overuse. Likewise, Lake Chuta wetland in Zimbabwe is

threatened despite its invaluable values (Musasa & Murambanyika, 2020). Though Sio River wetland supplies a lot of resources to the inhabitants, human activities practised are degrading them.

Additionally, East Africa, wetlands are widely distributed all over the land covering about 18 million hectares which is approximately 7% of the region (Muhimbo, 2022). They provide a lot of benefits to the ecosystem not only fish but also herbal medicine, fuel wood and papyrus wood among others. However, anthropogenic activities such as pollution, deforestation, industrialization, urbanization agricultural activities, mining, overgrazing, and irrigation have exerted pressure on East African wetlands (Mkonda, 2022). Despite the contributions of the Ethiopian wetlands to people's livelihood, cultivation has degraded them (Tecklie and Yosef, 2022, pp. 6-7). According to Omolo, et al., (2018), in Tanzania, besides the values of Lake Manyara, Mara Bay and Masirori wetlands anthropogenic activities are threats.

Additionally, Uganda well surrounded with wetlands such as Katehe, Nakivumbo, Kagera and Nakivale with multitude of benefits but lot of threats (Omagor, et al., 2018). According to Mugumya (2018), wetland destructions have been accentuated by poverty, high population growth and weak legal frameworks. To ensure that these resources remain beneficial, sustainable wetland management need to be put in place (Nile Basin Initiative, 2019 & Mugumya, 2018). Looking at Nambale, poverty, high population and weak governance are among the challenges facing the wetlands.

Precisely, Kenya's wetlands occupy about 3 to 4 per cent of the land's surface which is equivalent to 14000km<sup>2</sup> (Kareri, 2018). Kenya's wetlands provide ecological and socio-economic goods to the ecosystem (Ministry of Environment and Natural resource (MEMRI), 2012; Chepchumba, 2018). Initially, these wetlands were sources of food, clean water, and fish, building materials, fuel wood, handicraft material, recreational sites and flood control sites (Ministry of Environment and Natural Resources, 2012). Cultural ceremonies such as circumcision still take place in special places in wetlands where the initiates are smeared with mud and Kenya continues to recognize the values of its wetlands (Kenya Constitution, 2010, Kenya Vision 2030 & Kenya County Development plans). The Sio-River wetland has been valuable in its provision of water, medicine and building materials.

Essentially, Kenya is a signatory to United Nations agencies (Convention on Biodiversity Ramsar Convention and United Nations Framework Convention on Climate Change) all geared towards wetland protection. This is because of their immense contribution to the ecosystem. Initially, wetlands were the only available resources that people derived their livelihood by getting water pasture and fodder for animals during drought and dry spells (Kareri, 2018). Kenya's wetlands such as Tana River Delta, Ondiri, Nyando, Kingwal, Marura, Saiwa, Great Rift Valley and Lake Victoria have been threatened by anthropogenic activities. This has in turn resulted into loss of riverine wetlands, loss of biodiversity and water quality changes among others (Chepkwony et al, 2018; Kareri, 2018). The rich biodiversity (papyrus reeds, grass and trees) have disappeared due to encroachment.

Specifically, Busia County is also endowed with resources: forests, valleys, lakes, rivers streams and wetlands (Busia County Biodiversity Policy, 2016 & Busia County CIDP, 2018-2022). Notable wetlands in the county are Yala, and Sio plus other small wetlands on tributaries of the above rivers such as Malakisi, M'nambale, Walatsi, Musokoto (Naburi, 2018). These are rich sources for fisheries, recreation, water, food, medicine, wildlife habitats, firewood and grazing sites (Dindi, 2018) though this is not the case as at now. The land has gradually changed in the entire Busia County where Nambale Sub-County is included (Okusimba et al., 2019). The rich wetland resources have diminished due to degradation (Naburi, 2018; National Spatial Plan, 2015-2045).

Increased population growth along the Sio River wetland is exerting a lot of pressure on it with about 2.8% population rise and poverty index at 39% per year (Nile Basin Initiative, 2019). This is due to high demand of food and other wetland resources. Alongside, increased human activities along the Sio River wetlands aim at food security for the growing population. The execution of various developmental activities, intensive agriculture and pressures from other human activities lead to degradation of Sio River wetland (Nile Basin Initiative, 2019). This has resulted to wetland shrinking in size to the extent of getting extinct as well as undermining quality, quantity, roles and functions of Sio River wetland.

Despite development of a Community Management Plan, it has not been effective and essentially calls for sustainable management practices to avert further destruction (Nile Basin Initiative, 2019). The local community sustains livelihood through utilization of wetland resources. This is due to goods and services provided by the wetlands. However, the Sio River wetland has been adversely affected by degradation through overuse of its resources. This is due to high population resulting from high birth rates, poverty and migration of people (immigration). According to NBI (2019), the wetland's population is growing at 2.8%. This has negatively influenced water quality, biodiversity composition and sustainable utilization of the Sio River wetland. Execution of human activities such as agriculture, settlement, industrial activities and pollution has resulted to loss of Sio-river wetland.

Additionally, policy gaps as a result of growing poverty (2.9%) and unsustainable use of Sio River wetland have caused encroachment. This current trend therefore call for the need for an interrogation into the economic viability of Sio River wetland resource use and the sustainability of the livelihoods by the respective riparian communities living adjacent to the wetland. It was against this backdrop that this research was carried out to ascertain the impact of human activities on sustainable wetland management on Sio River wetland in Nambale Sub-county, Busia County.

## METHODOLOGY

This study used a mixed approach involving a cross-sectional research design. This is design was relevant for identifying the households and the human activities involved (Kombo and Tromp, 2018). Specifically, a sample of 400 respondents involving 392 households, five local authority and three environmentalists from a target population of 80,830 were used in the study. The sample size for this study was calculated using Yamane, (1967).

Clustered sampling was used to group households into wards, simple random sampling was used to select the households who live within the wetland under study (Lohr, 2019). Finally, the members of the local authority, representative from the County Government were purposively sampled to give information on the status of Sio River Wetland. The sample size for this study was calculated using Yamane, (1967).

Primary and secondary methods were used to collect data (Mugenda&Mugenda, 199). Observation, key pictorials, interviews and questionnaires, maps and photographs were used as primary data collection. Questionnaires were administered on the 392 householders, Interview guides were administered on the five local authority and three environmentalists', observations, maps and remotely sensed maps were taken to ascertain the human activities carried out on the wetland. This enhanced collection of first-hand information. Secondary sources involved gathering data that had already been collected, majorly using secondary sources such as journals (both published and unpublished), magazines, newspapers, books, theses, dissertations, maps, conference papers, internet, media sources, government reports with useful information on wetlands and reviewed literature from the library (Mugenda&Mugenda, 2018).

Qualitative and quantitative responses were summarized, categorized and coded into numerical values. The coded information was analysed using Statistical Package for Social Sciences (SPSS) version. The qualitative data involved description of the human activities and the changes on the wetland Quantitative data was presented using bar charts, pie charts and tables (Kombo & Tromp, 2018).

## RESULTS

### **Demographic Characteristics of the Respondents**

The study sought to examine the demographic characteristics of the respondents who took part in the study. The characteristics examined included the following: gender distribution and the educational level of the respondents.

Slightly more than a half (53%) of the respondents who took part in the study were males. Only (47%) were female.

Education level of the householders on wetland use was also examined. The results revealed that 17.2% of the respondents were not having any formal education qualification, 35.0% were having primary education level, 23.9% were having secondary education, and 18.8% were having tertiary education while 5.1% were having university education

### **Human Activities and Sustainable Management of Sio-River Wetland**

The study sought to examine some of the human activities practised and sustainable management on the Sio – River Wetland in Nambale Sub-County. The respondents were asked to give their views on the human activities and management of the river Sio Wetland. Table 1 shows their distribution.

Table 1

*Beneficial and Destructive of Human Activities along Sio River Wetland*

Positive	Frequency	Percentage	Negative	Frequency	Percentage
Agriculture	4	80.0	Agriculture	1	20.0
Livestock keeping	1	20.0	Digging along the river	1	20.0
Sand harvesting	2	40.0	Deforestation	1	20.0
			Sand harvesting	1	20.0

Based on the interview schedules with the local chiefs, the local community depended on the wetland for food and income from agriculture (80%), grazing (20%), and sand harvesting (40%). According to the findings, agriculture, deforestation and sand harvesting caused 20% destruction on the wetland.

According to the findings, agriculture, deforestation and sand harvesting caused 20% destruction on the wetland.



Plate 1: Livestock grazing on Sio River wetland during the Study Period

## DISCUSSION

The researchers observed that these human activities have led to a noticeable decline in wetland vegetation and alteration of hydrological patterns. The expansion of agricultural plots has encroached upon the wetland's natural buffer zones, while deforestation in the surrounding areas has disrupted the delicate balance between water retention and drainage. The extraction of sand, although contributing to the community's income, has left scars on the wetland landscape and impacted its overall ecological functionality.

Wetlands are vital ecosystems that provide a wide range of ecosystem services, including water purification, flood control, habitat provision, and carbon sequestration (Mitsch and Gosselink,

2015). These ecosystems have been recognized for their importance in supporting both local communities and global biodiversity. However, the sustainability of wetlands is increasingly threatened by human activities, leading to ecological degradation and loss of benefits. The dependency of local communities on wetlands for food and income has been documented in various studies. According to Schuyt and Brander (2004), wetlands have been traditionally utilized for subsistence agriculture, fisheries, and collection of non-timber forest products. In many developing regions, wetlands contribute significantly to livelihoods, acting as safety nets during periods of food scarcity (Nel et al., 2007). The present study's finding of 80% dependence on wetland-based agriculture aligns with these observations.

Agricultural expansion and intensification have been identified as leading causes of wetland degradation (Davidson, 2014). Unsustainable farming practices, such as excessive use of agrochemicals and poor irrigation management, can lead to soil erosion and pollution of wetland waters (Zhang et al., 2020). Deforestation, often driven by agricultural expansion, can exacerbate these impacts by altering hydrological regimes and reducing habitat connectivity (Turner et al., 2015). These findings corroborate the present study's revelation of agriculture and deforestation causing 20% destruction of the wetland. Sand harvesting, while a source of income, has been shown to have negative ecological consequences. A study by Erfemeijer and Lewis (2006) highlighted that excessive sand extraction disrupts sediment dynamics, affecting water quality and habitat suitability for aquatic species. Sustainable sand harvesting practices, guided by regulations and monitoring, are crucial to prevent irreversible ecological damage (Pranzini et al., 2017).

These findings underscore the urgent need for a comprehensive and collaborative approach to wetland management. Preserving the delicate equilibrium between human utilization and ecological health is paramount. Implementing sustainable agricultural practices, reforestation efforts, and responsible sand harvesting guidelines are crucial steps toward ensuring the long-term viability of the wetland ecosystem. To address wetland degradation and promote sustainable management, a participatory and integrated approach is recommended. Engaging local communities in conservation efforts has been proven effective in enhancing stewardship and reducing destructive practices (Agrawal and Gibson, 1999). Integrated land-use planning, as demonstrated by Lechner et al. (2018), facilitates the coexistence of agriculture and conservation by delineating zones for various activities based on ecological considerations.

## CONCLUSION

The importance of the Sio River Wetland to the local community's socioeconomic well-being has been amply proven by the study and therefore, it cannot be overlooked. Just like other wetlands, local community have benefitted from wetland economically and socially. Moreover, human activities are being undertaken in Sio River wetland which underlies its socio-economic importance to the local community. Anthropogenic activities such as sand harvesting has reduced water level and pollution, farming coupled with excessive use of fertilizer has interfered with wetland biodiversity and soil fertility. Even though human activities have negative effect on Sio-River Wetland, sustainable wetland management plan has been inadequately implemented. There are minimal measures from the local community, government, private sector and NGOs in place to curb human activities that have negative effect on the Sio-River Wetlands

including awareness and education, bamboo promotion and policy and regulatory framework. Therefore, the future of wetland is bleak and uncertain if the current trend of resource exploitation is not checked and arrested promptly.

Based on the study findings, the following recommendations were made in regards to policy and practice. Human activities undertaken at Sio-River wetland are important to sustainability of the local livelihood and therefore, the study recommends that local community have the responsibility to ensure its sustainability by engaging in activities which are not harmful to the wetlands but beneficial to them in the short run.

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## AN OVERVIEW OF DEFENCE DIPLOMACY IN KENYA

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**Abstract:** *Defence diplomacy is an instrument of diplomacy that promotes the implementation of national foreign and defence policy. It fosters inter-state relations that further establishes mutual trust and interdependence between states. The origin of Kenya's defence diplomacy is underpinned by the foreign policy 'doctrines' of the first four Presidents and its democratic governance. The study was geared to examine and assess the overview of defence diplomacy in Kenya with a view of promoting inter-state relations. The study employed mixed design underpinned in pragmatism research philosophy design, targeting key strategic Senior Military and Civilian Staff in related security institutions, and Ministries. Through purposive sampling techniques participants with not less than twenty years in service or served, relevant knowledge and in decision making were targeted. The sample size reached was eighty, but only fourteen participated through questionnaires, thirteen in interviews and twelve in focus group. Data analysis followed scientific procedures of categorised coding, conversation and discourse analysis and graphical interpretation for archival data. It concludes that the national defence and security structures and institutions establish the bedrock of defence diplomacy in Kenya. It recommends that Kenya should improve its defence and security structures and institutions with good policies that ensure effective conduct of defence diplomacy.*

**Key words:** *Defence Diplomacy, Diplomacy Education, Inter-state Diplomacy, Kenya Defence, Interstate Policy, Kenya Security, Diplomacy Training*

### INTRODUCTION

The origin of Kenya's defence diplomacy doctrine can be traced back to the foreign policy (FP) articulation by Kenya's first four Presidents' policy doctrines. The institution of the Presidency is the most important FP strategic institution in its implementation and articulation (Jackson and Rosberg, 1982, p.1). Kenya's first President, Jomo Kenyatta, established the road map of Kenya's FP through the African state's liberation struggles and political dispensations (Kipyego, 2018, foreword by Mohammed, A. C. pp. v-vii). Through him, Kenya got involved in peace and security endeavours that were deemed necessary on the African continent. Kenya's second President, Daniel Moi, engaged Kenya fully in conflict resolutions, peace and security negotiations, diplomatic and defence and security training cooperation in Africa and also

internationally, culminating with the establishment of the Intergovernmental Authority for Development (IGAD) (Kipyego, 2018, Chapter 1, pp. 1–6).

The third President Mwai Kibaki's foreign policy was fundamentally proactive and 'aggressive' in that it focused on protecting Kenya's interests. Kipyego,(2018, Chapter 14, pp 197– 208), argues that the Kibaki regime articulated a proactive foreign policy to position Kenya as a major actor in the international system. This proactive foreign policy was realized when Kenya's sovereignty and national integrity were threatened by the al-Shabaab terror group that was primarily based in Somalia. Kibaki launched the Kenya Defence Forces (KDF) under Operation *Linda Inchi* (literary means, 'Operation in Defence of the Nation') to pursue the al-Shabaab terror militant group across the international border into Somalia on 16 October 2011 (Kipyego, 2018). Thereafter the Kenyan troops rehashed into African Mission in Somalia (AMISOM). Prior to this KDF had not been involved in major combat, despite Kenya's involvement in brokering peacedeals both in Sudan and Somalia conflicts. The emerging Kibaki FP doctrine communicated military power to augment its political/diplomatic, social and economic power in the region, a neorealist approach to international politics.

Kenya's fourth president was Uhuru Kenyatta and his regime continued with the political and diplomatic traditions of his predecessor. Uhuru's FP approach was fundamentally '*Afrocentric*' (Kipyego, 2018). The regime endeavoured to strengthen the focus on economic diplomacy, sustained the peace agenda in Africa, invested in the war on terror and raised the efforts of engaging with the African states. Kenya is a democratic state with a governance system that has developed structures, institutions and policies of defence and security to undertake defence diplomacy as a tool of diplomacy to foster some of its foreign policy objectives. According to the Constitution of Kenya 2010, the key among them is the National Security Council, which is chaired by the President, the Parliamentary Committee on national security, defence and foreign relations, and the Kenya defence policy.

In this respect, Kenya has developed defence and security institutions of education and training to impart knowledge and skills to its defence and security personnel in their implementation of national defence and security policy. They include the National Defence College (NDC), Joint Command and Staff College (JCSC), formerly Defence Staff College (DSC), the International Peace Support Training Centre (IPSTC), and the Kenya Military Academy (KMA). NDC is a premier defence and security institution for higher education and training on matters of national security and policy formulation that was commissioned in 2001. It trains an average of seventy participants annually. The JCSC – Kenya, is an institution of military professional training, founded in 1984 as Defence Staff College (DSC), but renamed to JCSC in 2022. It primarily trains military officers for leadership, command and management. It comprises two divisions, the senior and junior cadre. The study examines the senior division. It trains an average number of 181 students per year in its both divisions. The IPSTC was commissioned in 2001 with a mandate of conducting peace support-related training and research. The College carries out its mandate in a formal partnership with other international stakeholders. The College trains an average of 500 students per year. KMA is the oldest defence and security education and training in Kenya. It was established in colonial Kenya in 1941, as a military basic training College. However, with time, it has transformed itself into a Military Academy for Officer Cadets

training, with four streams averaging 800 Cadets annually. In addition, Kenya previously used to train Officer Cadets from almost all Eastern and Southern African states. The four institutions are colleges of National Defence University – Kenya.

Internationally, defence and security institutions have common experiences and similarities that make them proficient in working with equivalent in any state (Foster, *et al.*, 2013; Leahy, 2014). Defence diplomacy is defined in terms of its significance as a tool for implementation of national foreign defence and security policy by using security institutions and the ministry of defence leadership in international undertakings (Drab, 2018). Despite its many references which depend on the state, it carries a wide scope that encompasses military and civilians in the realm of national security (Emy, 2019). In this respect, the paper delves to examine and to assess the underpinning overview of defence diplomacy in Kenya that fosters cordial inter-state relations in the promotion of peace and security.

## METHODOLOGY

The study employed mixed design underpinned in pragmatism research philosophy. The research design was grounded by various research strategies. The target population comprised key strategic Senior Military Officers and Senior Civilian Staff in related security institutions and Ministries in Kenya, including Ministries of Defence, Interior and Foreign Affairs, the National Police Service, the National Intelligence Service and the Department of Migration. The target population participants were of not less than twenty years in service and with a degree level and above of education. Purposive sampling technique was applied for specific targeting of individuals in decision making, with requisite knowledge, expertise and experience relevant to the study.

Determination of sample size followed a scientific approach using the Cochran formular (1997, para 6.2.1), thus for an unknown size of population the formular is:

$$n_0 = \{z^2 \cdot p \cdot (1-p)\} / e^2.$$

Where  $e$  = desired margin of error;

$p$  = the fraction of the population (as %) that displays the attribute;

and  $z$  = the  $z$ -value, extracted from Cochran's  $z$ -tables, thus  $z = 1.96$ .

Hence given the lack of information of the actual number of the strategic leaders in the security related Ministries, Departments and Agencies (MDAs) (due to security nature of the information), the study sought to consider that 50% of the desired population was targeted, which provided the largest variability.

Then considering a 95% confidence level (led to a 5% margin of error) thus (+5% or -5%) margin of error. From the Cochran's  $z$ -Tables, the value for  $z$  is 1.96. Thus, the theoretical sample size was found to be:

$$n_0 = \{1.96^2 \times 0.5 \times (1-0.5)\} / 0.05^2 = 385$$

Thus, applying Cochran's modified sample size formula

$$n = n_0 / [1 + \{(n_0 - 1) / N\}] ;$$

where  $n_0$  is the Cochran’s sample size computed using formula for unknown population size, thus the sample estimate idea.

N is the size of the population, (in the case of the study this was rough estimates reached by the researcher in all MDAs).

Table. 1. Determination of sample size.

MDA	Estimated Strategic Target Population	Sample Size	Questionnaire Respondents between Jun & Nov 2021	Focus Group Discussions (FGDs) Participants; on 26 Nov 2021 (Video Conferencing)	Interviewee participants Conducted Between Feb & Jun 2021	Sampling Procedures
MOD/DoD	80	14	8	4	6	Purposeful
MFA	80	14	2	1	2	Purposeful
MoI	40	4	2	1	2	Purposeful
NIS	40	4	2	0	2	Purposeful

Source: Research data, 2023.

Further, the study collected data from defence and security education and training institutions archival records. Data analysis followed scientific procedures of adequate checking its reliability and verification. Raw data was edited, coded and tabulated. Thus, categorised coding of textual data from questionnaires, interview conversations and discourse analysis to interpret elements of speech act from the interviews and focus group discussions. Content and descriptive statistics procedures were applied (Loebset *al.*, 2017). Ethical and legal considerations were observed (Resnik *et al.*, 2015), while permission to conduct research was sought from Kenya’s National Commission for Science and Technology and Innovation (NACOSTI).

## RESULTS

### Demographic Characteristics of the Respondents

The study sought to examine the demographic characteristics of the respondents who took part in the study. The characteristics examined included the age bracket of the respondents, whether the participants were still serving or retired, gender distribution.

When asked to give their age bracket, nearly a third (31%) of the respondents were of the age brackets of 45-50 years, 28% were between 40-45 years, 22% were between 50-55 years, while only 19% were of 55 years and above.

On whether the participants were serving or retired, 25 of them were still serving, while only 5 of them had retired. This meant that participants had a wide level of knowledge, expertise and experience in matters of diplomacy undertaken in widened span of time.

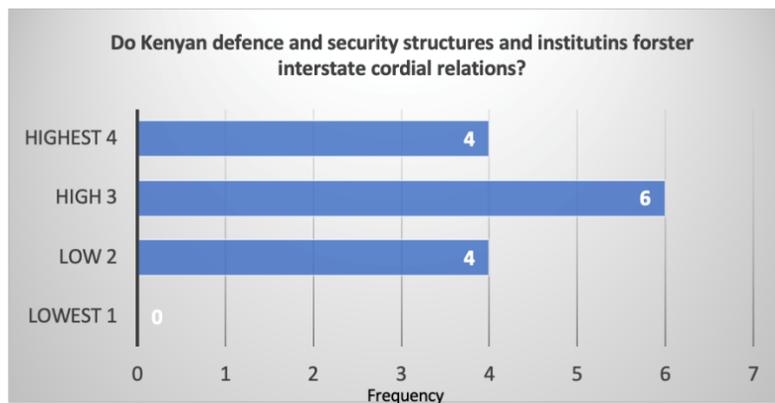
Regarding the gender distribution of the participants, slightly more than two thirds (69%) of the respondents were males, while only 31% were female. The study's gender distribution was reminiscent of Kenya's employment structure where men are generally more than women.

### **An Overview of Defence Diplomacy in Kenya**

The study had in-depth examination and assessment of defence diplomacy in Kenya with respect to four arguments including, defence and security structures, efforts in inter-states conflict negotiations and interventions, secondment of strategic leaders to AU and UN field missions and, defence and security education and training. The first three were examined based on primary qualitative data while the last was based on quantitative primary data from institutions archival records. The study examined the qualitative primary data regarding the arguments, based on representation of the fourteen questionnaire respondents by weight age of scale of 1 to 4 as levels of significant/agreement such that 1=lowest, 2=low, 3=high and 4=highest rating.

#### *Defence and security structures*

The study sought to examine the defence and security structures of the country. the respondents were asked to give their views on whether Kenya's defence and security structures fostered inter-state relations. The distribution of the respondents is summarised in figure 1



**Fig. 4.**

**Source:** Research data, 2023

*Figure 1:* whether Kenya's defence and security structures fostered inter-state relations

The affirmation of the argument was found to stand at 71% significant level of combined highest and high rating levels. However, the 29% low rating level was found to be as a result of participants view that, less was being done to improve the institutions to foster impact. The results were in tandem with interviewees' and focus group's (FG) view that Kenya has various structures and institutions of defence and security that have capacity and capability to project and

conduct defence diplomatic issues in international system. In addition, the Kenya defence policy stipulated the need and desire to collaborate with international partners. The study found out that the Ministries of Defence, Foreign Affairs, Interior and such institutions as the KDF, the National Police Service, the National Intelligence Service and the Department of Migration had played major activities of diplomacy including in conflict stabilizations and negotiations, peacekeeping and in information gathering. Additionally, Kenya was found to be a member of neoliberal peace and security organizations like the UN and African Standby Force (ASF).

*Efforts in inter-state conflicts negotiations and interventions*

The results on the argument whether Kenya’s efforts in inter-state conflict negotiations and interventions fostered interstate relations were as shown by Figure 2.

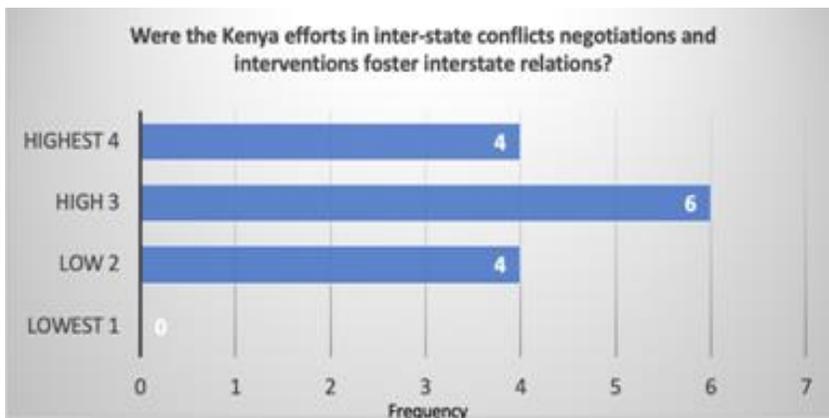


Figure 2: Kenya’s efforts in inter-state conflict negotiations and interventions fostered interstate relations

The affirmation on this argument was found to stand at 72% of the combined highest and high rating levels. But the low-level rating of 28% was attributed to participants’ observation that little effort was being employed, while potential was huge. The results were in consonance with findings from the interviews and FG that observed that, Kenya security structures and institutions got very much involved in negotiating for peace in the region due to break out of intra- and inter-states conflicts, for instance in Sudan, Somalia and Ethiopia/Eritrea. In addition, the cross-border threats and human security threats were observed to have demanded cooperation between states in humanitarian interventions. Moreover, Kenya was found to have been a key player in initiating major liberal institutions in Africa like the IGAD.

*Secondment of strategic leaders to AU and UN field missions*

The results on the argument on whether secondment of senior defence and security staff to strategic leadership positions in both the AU and the UN field missions fostered interstate relations were as shown on Figure 3.

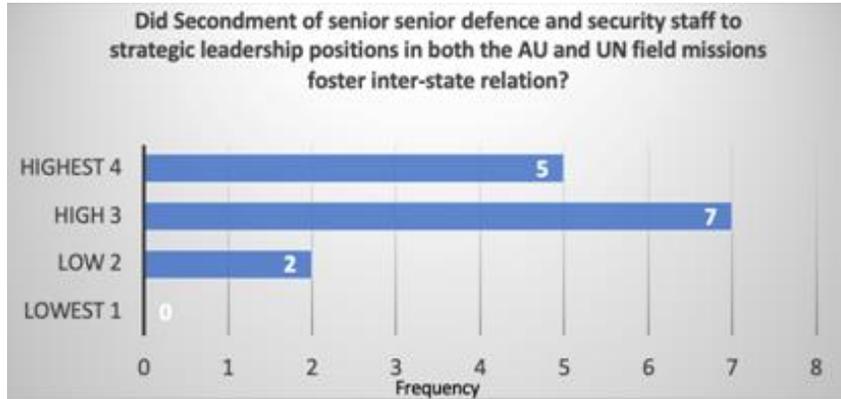


Figure 3: Secondment of strategic leaders to AU and UN field missions

The affirmation of this argument was found to stand at 86% of the combined highest and high rating. The low-level rating of 24% was attributed to participants' observation that the secondment was of a few senior officers but the contingents had a bigger impact. The results conformed with interviewees and FG argument that Kenya was an important player in regional and international by providing strategic leaders to peacekeeping missions both in the AU and UN. The Kenya constitution provided the legal mandate and the democratic governance was found to have had the necessary political-will to participate in promotion of international peace and security. Thus, Kenya contributed to stabilize Namibia, Liberia, Sierra Leone, Morocco under UN missions and participated in AU Missions in Sudan, Ethiopia/Eritrea, and Somalia among others.

#### *Defence and security education and training*

The study assessed the argument that education and training offered in Kenya's defence and security institutions fostered inter-states relations. Thus, the number of regional partner states participants, students and cadets trained in the last ten or eight years was assessed for their impact with respect to this argument and particular institution including; NDC, the JCSC, the IPSTC and the KMA.

Figure 4, shows the results in number of regional partner states participants trained in NDC in the last ten years.

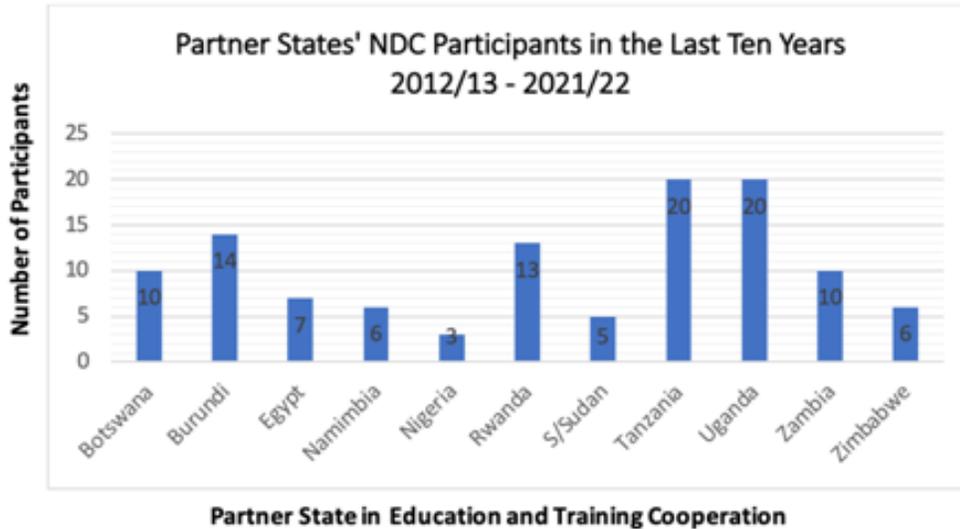


Figure 4: Number of regional partner states participants trained in NDC

The study found out that, NDC had been attracting participants from Anglophone African states in the last ten years. It was found that, Kenya and the partner state came together and signed a bilateral agreement to facilitate participants training. However, number of regional partner states participants trained in NDC Cumulatively in the last ten years the results were as shown by Figure 5.

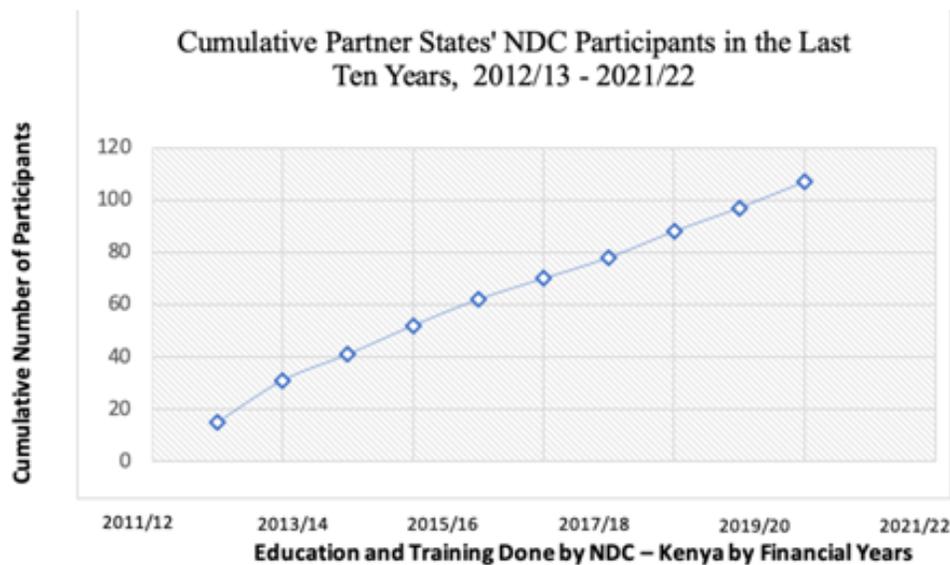


Figure 5: Cumulative number of regional partner states participants trained in NDC

Thus, the study found out that there was a gradual growth in number of partner states participants in the last ten years 2012/13 to 2021/22.

Figure 6, shows the results of number of partner state students in the JCSC senior division in the last ten years, 2012/13 – 2021/22.

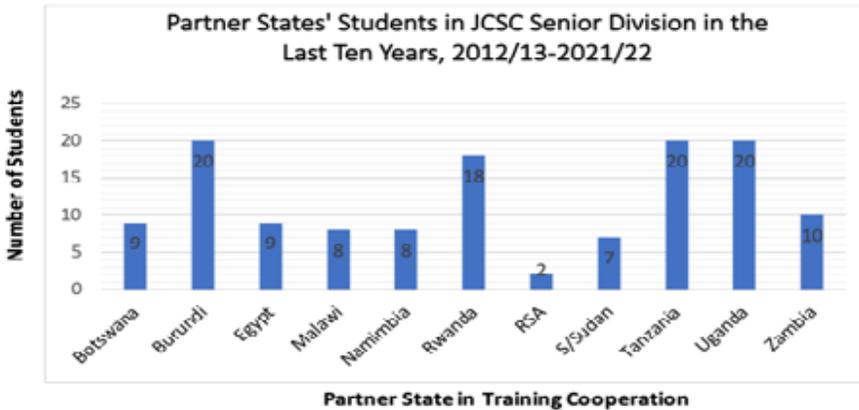


Figure 6: number of partner state students in the JCSC senior division

Similarly, the study found out that, JCSC had been attracting participants from Anglophone African states in the last ten years. Further, the earlier five EAC partner states were found to have a multilateral agreement on exchange programme for students training. However, cumulatively the results were as shown on Figure 7.

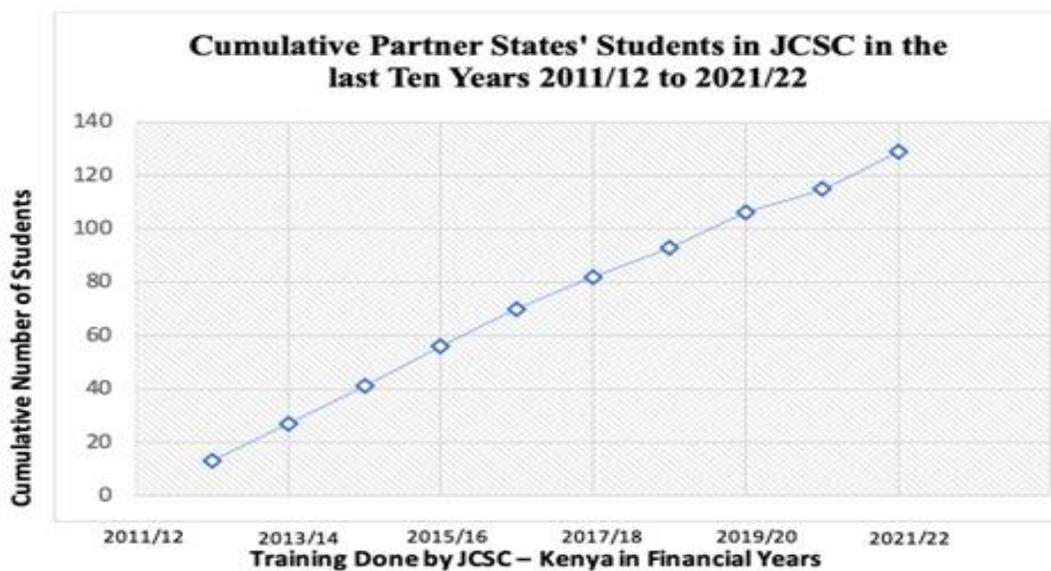


Figure 7: Cumulative number of partner state students in the JCSC senior division

The study found out that, there was gradual growth in number of partner states’ students in JCSC in the last ten years, 2011/12 to 2021/22.

Figure 8, shows the results of partner states’ participants in IPSTC in the last eight years, 2012 to 2020.

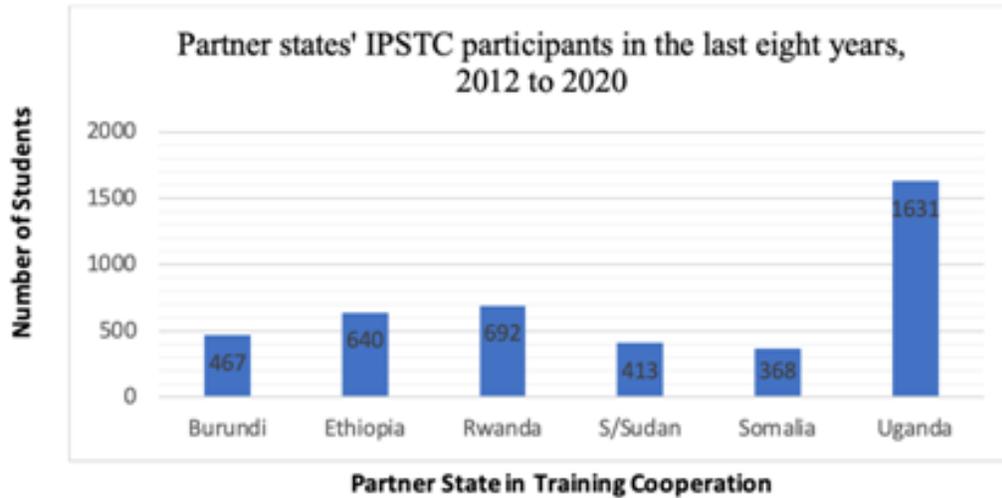


Figure 8: Partner states’ participants in IPSTC

The study found out that, IPSTC attracted participants from the sub-regional states in the last eight years. It was also found that Kenya and partner states or other major stake holders had bilateral agreement to facilitate the training. However, cumulatively the results were as shown on Figure 9.

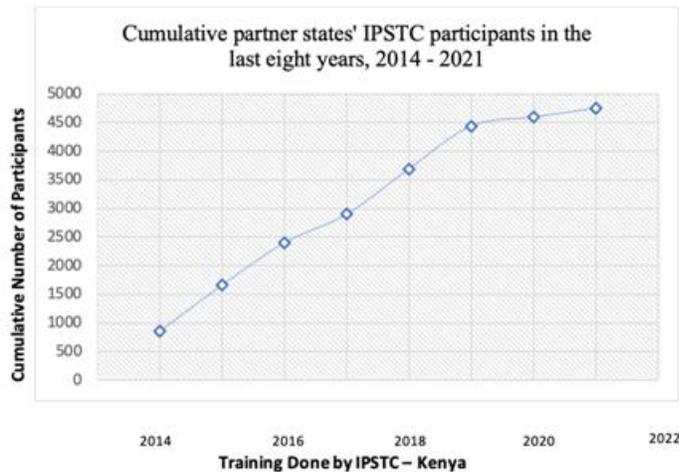


Figure 9: Cumulative partner states’ participants in IPSTC

The study found out that, there was gradual growth in number of partner states’ students in IPSTC in the last eight years, 2014-2021.

Figure 10 shows the results of EAC partner states cadets trained in KMA in the last ten years, between 2012 and 2022.

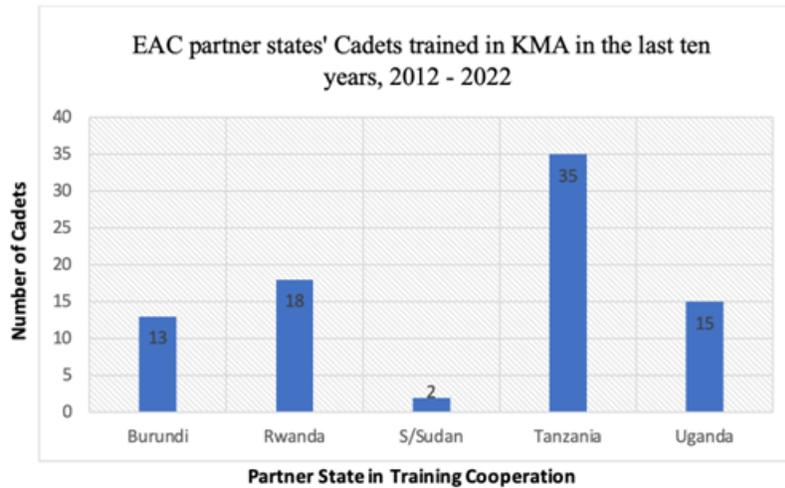


Figure 10: EAC partner states cadets trained in KMA

Similarly, the study found out that, KMA attracted cadets from the EAC sub-regional states in the last ten years. Although four EAC partner states Kenya, Rwanda, Tanzania and Uganda had a multilateral agreement on cadets’ exchange programme. However, cumulatively the results were as shown on Figure 11.

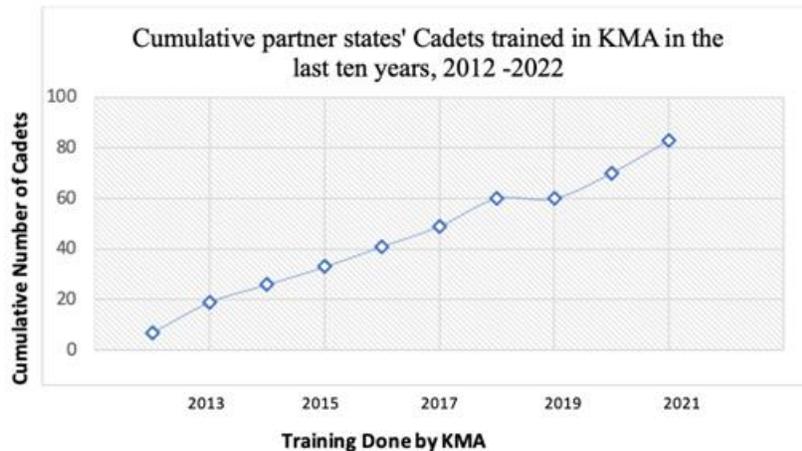


Figure 11: Cumulative EAC partner states cadets trained in KMA

The study found out that, there was gradual growth in number of EAC partner states’ cadets in KMA in the last ten years, 2012-2022.

## DISCUSSION

The study's findings, as revealed, underscore the pivotal role played by Kenya's defense and security institutions in cultivating inter-state cordial relations within the region through the strategic implementation of defense diplomacy. This observation resonates with the research conducted by De Coning (2016), a prominent expert in peace and conflict studies, who extensively examines the significance of regional organizations in resolving conflicts. De Coning's insights offer a valuable framework to comprehend how Kenyan defense institutions actively engage in diplomatic endeavors, thereby fostering the advancement of peace and security across a broader spectrum.

Moreover, the study's affirmation of Kenyan defense and security structures contributing to conflict stabilization, negotiations, peacekeeping, and information sharing aligns seamlessly with Olonisakin's research focus on conflict prevention, security governance, and peacebuilding in Africa (2021). Olonisakin's work accentuates the proactive security measures that Kenyan defense institutions employ, amplifying our understanding of their effectiveness in addressing regional challenges and ensuring stability through defense diplomacy. The significance of Kenya's defense diplomacy gains further context from Paul Williams' extensive research on conflict intervention, peace operations, and African security organizations (2012). Williams' insights enable a deeper appreciation of how Kenyan defense institutions actively contribute to regional peacekeeping efforts and collaborative endeavors within international security frameworks, substantiating the study's observations.

Adebajo's research on conflict resolution, regional security organizations, and peacebuilding in Africa (2012) provides a relevant framework for understanding the study's assertion of Kenyan defense institutions fostering inter-state relations. Adebajo's exploration of collaborative security approaches offers valuable context, highlighting the compatibility of Kenya's defense diplomacy with regional and international peace and security initiatives. The findings of the study are further enriched by Dzinesa's analyses of regional security dynamics and conflict resolution efforts in Africa (2012). Dzinesa's work provides nuanced perspectives on how Kenyan defense institutions contribute to regional stability through diplomatic engagement and collaborative security efforts, amplifying the study's conclusions regarding defense diplomacy's role in conflict management and peace promotion. Likewise, Bouka's emphasis on peacebuilding, conflict prevention, and gender issues in African security contexts (2018) offers a lens through which to explore the gender dimensions of Kenyan defense institutions' diplomatic activities and their impact on peace and security. This complements the study's focus on defense diplomacy's multifaceted contributions to conflict stabilization, negotiations, and peacekeeping.

Khadiagala's research on African international relations, conflict management, and regional security (2013) offers a relevant backdrop, situating Kenya's contributions within a broader framework of collaborative security efforts within the African context. His insights underscore the interconnected nature of security dynamics, aligning with the study's emphasis on inter-state relations fostered by Kenyan defense and security institutions. Mangala's expertise in African politics and international relations (2017) provides valuable perspectives on how Kenyan defense institutions engage in diplomatic activities and contribute to conflict resolution efforts, aligning with the broader impact of defense diplomacy on regional security dynamics. This reinforces the study's assertion of Kenya's role in shaping inter-state relations.

Aning's comprehensive research spanning peace operations, security sector reform, and the role of regional organizations in African security (2010) offers a comprehensive view of Kenya's contributions to regional stability, underscoring the study's focus on defense diplomacy and its role in promoting collaborative security approaches. Shaw's analysis of African security governance, conflict resolution, and regional organizations (2011) contextualizes Kenya's engagement in defense diplomacy within the broader realm of African security governance, establishing the groundwork for understanding the study's findings in the context of regional security dynamics.

## CONCLUSION

The paper concludes that the establishment of various defence and security structures and institutions enabled Kenya to foster inter-state relations in the region by putting its efforts in inter-state conflict negotiations and interventions. Hence, Kenya's defence diplomacy can be viewed as vibrant regionally and internationally. Further, the study concludes that Kenya's cooperation with sub-regional and regional states with respect to defence and security education and training, fostered cordial inter-state relations. Notwithstanding, study concludes that, Kenya's secondment of senior defence and security staff to strategic leadership positions in both the AU and the UN field missions fostered interstate relations in promotion of peace and security. It also concludes that, the four major defence and security institutions, the NDC, the JCSC, the IPSTC and KMA had a positive impact on inter-state relations in the sub-region as well as in the region. However, these education and training institutions had a marginal growth in the last ten years with respect to foreign students. Ultimately, the study concludes that, the national defence and security structures and institutions of defence and security education and training establish the bedrock of defence diplomacy in Kenyan, which fosters inter-state relations.

Based on the study findings, the study recommends that Kenya should endeavour to improve its defence and security structures and institutions to formulate good policies that would ensure efficient and effective conduct of defence diplomacy with a view to fostering inter-state relations. In particular policy guidance to improve defence and security institutions of education and training capacity to absorb more foreign participants, students and cadets from the region to enhance inter-state relations.

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## INFLUENCE OF FATHERS' OCCUPATION ON SECONDARY SCHOOL STUDENTS' PERCEPTIONS TOWARDS HOME SCIENCE IN NAKURU COUNTY, KENYA

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**Abstract:** *Home science plays a key role in equipping learners with knowledge, self-reliance skills, and ability to practice principles of good health and preserve the environment. Despite its important role, the number of secondary school students who enroll for the subject in Nakuru County has generally been low. The low enrolment has been attributed to negative perceptions among other factors. Literature shows that the fathers' occupation is among factors that influence students' perceptions towards home science. This study investigated the influence of fathers' occupation on secondary school students' perceptions towards home science in Nakuru County, Kenya. The study adopted the descriptive survey research design. The accessible population was 2043 forms two and three students in 39 public secondary schools that offer the subject. A sample of 204 students selected using stratified, proportionate and simple random sampling techniques were used to select the students and schools which participated in the study. Data was gathered using a students' questionnaire. Its face validity was checked by three experts from the department of Curriculum, Instruction and Educational Management, Egerton University. After pilot testing, the reliability of the questionnaire was estimated using the Cronbach alpha method. It yielded a reliability coefficient of 0.856, and was deemed reliable. Data was analyzed with the aid of the Statistical Package for Social Science version 25. Frequencies and percentages were used to describe and summarize qualitative data. Hypothesis was tested at the .05 alpha level using logistic binary regression. The findings showed that occupation of majority of fathers were business/manual jobs (68.3%), which was a good percentage to determine any influence to the students towards perception. The findings also showed that majority (89.9%) of students had positive perception towards learning home science. The findings further showed that fathers' occupation was not a significant predictor of perceptions. It is envisaged that the findings of the study may provide school administrators, teachers, parents, with an insight to look further on other areas that may be the cause of negative perceptions towards the subject and put in place mechanisms to stop them. Further, these findings could be used as baseline data by future researchers on perceptions towards home science.*

**Keywords:** *Fathers' Occupation, Secondary School Students, Students' Perceptions, Home Science students' perception*

## INTRODUCTION

Home Science is an applied and integrated science that aims at improving quality of life for the individual, family and community (Dislereet al., 2020;(Kenya Institute of Education [KIE], 2004; Kithimba et al., 2018; Nyangara, Indoshi&Othuon, 2010; Serem, 2011; Vimalkumar, 2022). The subject aims at assisting in the development of positive attitudes towards work and helps minimize health issues which affect citizens, such as cancer, diabetes, hypertension and communicable diseases (McCloat, 2019). The knowledge acquired in Home Science can also provide the impetus to the realization of the vision 2030 since it increases the self-employment opportunities and increases the knowledge on good health of the society (Taar, et al., 2022). It also produces middle level manpower that is needed to drive Kenya's economy (Akala &Changilwa 2018).

Despite its importance, students' enrolment in home science in counties like Nakuru and national has consistently been low. As a result, the benefits of home science may not be achieved, and careers related to Home Science may be affected. The low enrolment has been attributed to students' perceptions towards home science. Perceptions play a key role in selection and learning of subjects. The students' perceptions towards home science could perhaps be due to the influence of the fathers' occupation. Studies done elsewhere have shown that fathers' occupation may influence their children's' perceptions. However, there is hardly any literature linking fathers' occupation and perceptions towards home science in secondary schools in Nakuru County.

Occupation is a person's job or profession. It is also a regular activity that a person is engaged with. In this study, fathers' occupation implied a job, or activity that a father is engaged with to earn a living. The occupations of the fathers were categorized into professional, clerical or sales job, business persons, skilled manual worker and unskilled manual worker. On the other hand, perception is the processes by which data from the environment is interpreted to allow us to make sense out of it. It is about receiving, selecting, acquiring, transforming and organizing the information supplied through our senses (Baber & Legge, 2017). Influence is when the parent, teacher or peers causes the student to change a behavior, belief, or opinion It is assumed that the fathers may be responsible for the influence in perception of the students towards home science. Negative perceptions lead to low enrolment in the subject as envisaged in Nakuru County. This study therefore sought to investigate the influence of fathers' occupations on students' perception towards home science in Nakuru County.

## RESEARCH METHODOLOGY

### Research Design

Selection of an appropriate research design is essential since it ensures that the methods used match the objectives of an inquiry (Asenahabi, 2019). This study utilized the descriptive survey research design. The design involves collecting data at one point in time without manipulation of variables and describing it (Nardi, 2018). Aggarwal and Ranganathan (2019) contend that the design is suitable for describing characteristics of a population and exploring relationships, causes or consequences. The design was selected because the study collected data using a sample at one point in time. In addition, influence of fathers' occupation on the students' perception towards Home Science was determined without manipulation of variables.

### Target Population

The target population of the study was all students in public secondary schools who had enrolled for Home Science in Nakuru County, thus the school is the sampling unit. There were 39 single and co-education public secondary schools in Nakuru County which offered Home Science as an elective subject (County Director of Education [CDE], 2020, 2021). The accessible population was 2043 forms two and three students in the 39 public schools that offer Home Science. The form twos and threes were selected because they had covered a substantial percentage of the Home Science syllabus. The form fours were not chosen because they were busy preparing for the KCSE. The form ones were also not chosen because their coverage of the Home Science syllabus was deemed inadequate. The accessible population of the study is summarized in Table 3.

Table 1

*Distribution of the Accessible population by School Category*

School category	Characteristics	Number of schools	Number of students
Single sex	Girls' only	11	673
	Boys' only	2	37
Co-education	Girls and Boys	26	1333
<b>Total population</b>		<b>39</b>	<b>2043</b>

*(Source: Nakuru County Director of Education, (2022))*

### Sampling Procedures and Sample Size

This study investigated the influence of fathers' occupation on students' perception towards Home Science. Therefore, the secondary school was the sampling unit. The number of form two and three students who took part in the study was determined using Neuman's (1994) recommendation that considers 10% of a moderately large population of over 1,000 but under 10,000, as adequate. This recommendation was used to determine the sample size (204) of the students, given that their accessible population was 2043. The number of students who actually participated in the study increased from 204 to 212 because intact classes were used. Use of intact classes is in line with the Ministry of Education regulations which prohibits reconstitution of classes for research purposes (Wango, 2009).

After determining the students' sample size, strata were created as a way of ensuring that the two classes and all categories of schools were involved in the study. This involved organizing the data by class and school category (single sex and co-education). The number of students who participated in the study from each group was determined using proportionate sampling procedures. At the school level, simple random sampling was used to select those (whole classes) who participated in the study. Table 4 shows the sample sizes of the study.

Table 2  
*The Sample Sizes of the Study*

School category	Characteristics	Schools sampled	Sample size
Single sex	Girls' schools	4	67
	Boys' schools	2	37
Co-education	Girls and Boys	8	100
<b>Total population</b>		<b>14</b>	<b>204</b>

### Data Collection Instruments

The study used the Student Questionnaire (SQ) to collect data. The questionnaire was selected because it is efficient for collecting data from a large sample that is dispersed over a wide geographical area and easy to administer (Zangirolami-Raimundo et al., 2018). The other advantage associated with it is that scoring and analyzing data generated using questionnaires is easy, especially those constructed using closed-ended items. The questionnaire had three sections; A was for eliciting the students' bio-data. The fathers' occupation data was gathered using items in section B while those on students' perception was generated using section C.

The students' questionnaire was constructed using closed-ended Likert type items based on the extent to which the respondents agreed with them (Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree). The close ended items were included in the instrument because they yield uniform responses thus simplifying data coding and analysis (Sang, 2002). The items were positively and negatively phrased. According to Weijters and Baumgartner (2012) positive items give a positive connotation of a construct being measured while negative ones oppose the logic of the variable being measured. The positive and negative items were included in the instrument because they enabled categorization of perceptions as positive and negative. In addition, their inclusion helped in reducing acquiescence bias. Salazar (2015) contends that acquiescence bias occurs when people tend to agree with statements without regard for their actual content, due to laziness, indifference or automatic adaption to a response pattern.

### Data Collection Procedures

An introductory letter from Egerton University Graduate School was used to seek a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). Once the permit was granted, the respondents were formally contacted through the County Director of Education and principals. The purpose of the study was explained to the respondents and consent to participate in it sought. The researcher set the dates and venues for administering the questionnaires in consultation with school administrators and the respondents. On the material days, the modalities of filling the questionnaires were explained to the respondents before they were administered. The questionnaires were administered and the students given 30 minutes to fill them. The filled questionnaires were collected and organized by school category, awaiting analysis.

## Data Analysis

The collected data was checked for completeness and errors and cleaned. A code book was prepared and used to code the data. The Statistical Package for Social Science (SPSS) was used to prepare a file and the coded data keyed into it. The students' characteristics and fathers' occupation were summarized using frequencies and percentages. Perceptions of the students were determined by categorizing responses to items in their questionnaires as negative and positive. The responses were tallied and a student's perception categorized as positive when she/he agreed with majority of the positive items but disagreed with most of the negative ones. Similarly, a student's perception was categorized as negative when she/he disagreed with most of the positive items but agreed with majority of the negative ones. The perceptions were then summarized using frequencies and percentages.

The hypothesis was tested at the .05 alpha level using the binary logistic regression. Binary regression is based on the formula

$$\ln [P/(1 - P)] = b_0 + b_1x_1$$

Where

$\ln$  is natural logarithm

$P/(1 - P)$  = Odds ratio

$P$  is probability of students having positive perceptions

$(1 - P)$  is probability of students having negative perceptions towards home science

$b_0$  is the intercept

$b_1$  factors coefficient

$x_1$  predictor variable (occupation or education)

$$P = e^x / (1 + e^x)$$

where  $x$  is  $b_0 + b_1x_1$  (Hilbe, 2015)

Binary logistic regression was selected because it is recommended for exploring relationships between variables (Shield, 2018). It is a variation of regression that is used when the dependent variable is binary in nature. Logistic regression predicts the probability of a category of a dependent variable occurring, rather than its value as in simple linear regression. The independent variable was occupation while the dependent variable was perception. Occupation was categorized as business, professional, semi-professional and manual jobs. Perception was categorized as positive, which was coded as 1 and negative, which was coded as 0.

The independent variable, occupation was converted into a dummy before conducting the regression procedure. This conversion was deemed necessary because occupation is categorical data. Oyeka and Nwankwo (2014) recommend use of dummy variables when explanatory variables are measured at nominal or ordinal scale for regression to correctly test association between constructs. The baseline categories for occupation during the analysis was manual work. The statistical procedures used during data analysis is in Table 5.

## RESULTS

### Demographic Characteristics of the Respondents

The results indicate that the students' fathers were in various professions, with business (43.9%) recording the highest percentages, manual skilled and unskilled work (24.4%), professional (23.8%) and semi-professional jobs (7.9%).

A set of 39 items in the students' questionnaire was used to measure their perceptions. The items were closed-ended five category (strongly Agree, Agree, Undecided, Disagree, Strongly Disagree) Likert type, based on the extent to which the respondents agreed with them. The students' responses to the items are presented in Table 7.

### Influence of Fathers' Occupation on Secondary School Students' Perceptions Towards Home Science

The study sought to examine the influence of fathers' occupation on secondary school students' perceptions towards home science. Students were asked to give their views on a number of items. Table 3 summarizes the response of the students by Perception towards Home Science

Table 3  
*Students' Responses to Items on Perception towards Home Science*

Item	N	SA	A	NS	D	SD
I have always liked Home Science	189	68.3	20.6	5.8	3.2	2.1
Home Science is one of my best subjects	190	49.5	34.2	5.3	7.9	3.2
Home Science is an easy subject	186	36.6	45.7	9.7	5.4	2.7
Learning Home Science is rewarding	179	48.0	24.0	19.6	5.0	3.4
I was not influenced by my parents to study Home Science	180	46.7	18.3	6.7	12.8	15.6
My parents like Home Science	186	21.5	23.1	40.3	9.7	5.4
I would like a career that requires Home Science	185	50.3	23.8	10.3	8.6	7.0
I aspire to study a career related to Home Science	184	45.1	26.1	13.0	4.3	11.4
My parents did not like me to choose Home Science	188	4.3	7.4	18.6	20.2	49.5
My general poor performance in other subjects made me to choose Home Science	187	10.7	10.2	6.4	19.8	52.9
I have a negative attitude towards Home Science	187	5.3	4.8	5.9	20.9	63.1
Home science is for girls	189	7.4	1.1	4.8	14.8	72.0
My parents supported my decision to study Home Science	187	43.9	28.3	11.2	8.6	8.0
I have confidence in Home Science	188	61.7	23.9	4.8	3.2	6.4
My parents don't like Home Science	189	2.6	4.2	30.2	18.5	44.4
I look forward to studying Home Science subject up to university	190	39.5	22.1	18.4	6.8	13.2
Home science is for academically weak students	189	3.2	3.7	7.9	14.3	70.9
Home science is for students whose parents are rich	189	1.6		3.7	11.6	83.1
Home science cannot offer a good career in life	187	2.1	2.7	5.9	13.9	75.4
I do not aspire to study a career related to Home Science	188	8.0	8.5	14.9	21.3	47.3

My parents discouraged me from studying Home Science	185	2.7	4.3	7.6	23.2	62.2
I perform well in Home Science	189	48.1	40.2	6.9	1.6	3.2
I have a positive attitude towards Home Science	186	60.8	23.7	4.3	5.4	5.9
I feel demotivated when studying Home Science	181	9.9	7.7	6.1	21.0	55.2
Home Science is for boys	189	2.6	2.6	6.9	10.6	77.2
Home science is not important in life	188	3.2	0.5	2.7	17.6	76.1
My parents do not know anything about Home Science	188	8.0	7.4	21.3	20.7	42.6
My parents appreciate the importance of Home Science	183	42.6	25.1	21.3	5.5	5.5
I don't need to learn Home Science in school	186	4.8	6.5	10.8	25.8	52.2
Home science ought not be taught in school	188	7.4	4.3	9.6	19.7	59.0
Home science is not a popular subject	189	5.9	9.0	21.7	24.3	39.2
Home science subject will not add value to me	189	2.1	3.2	2.6	22.2	69.8
I don't expect to apply Home Science in my future career	184	7.6	4.9	15.8	17.4	54.3
My parents have no problem with me studying Home Science	184	56.5	24.5	8.2	5.4	5.4
Home Science is a difficult subject	187	4.3	5.4	6.4	26.2	57.8
I get good marks in Home Science	187	42.8	42.8	6.4	4.8	3.2
I feel motivated when studying Home Science	186	51.6	24.2	10.2	5.4	8.6
My parents do not want me to study Home Science	187	4.8	4.3	11.8	23.5	55.6
My parents always praise me when I do well in Home Science	187	46.5	29.4	13.4	2.7	8.0

The results in Table 3 indicated that the respondents who liked the home science subject were (88.9%), those who performed well in home science were (88.3%) those who got good marks were (85.6%), had confidence (85.6%) and positive attitudes towards the subject were (84.5%). However, those who disagreed that home science was for students whose parents were rich were (94.7%), was not important in life (93.7%), cannot offer a good career in life (89.3%) and was for boys only (87.8%). The percentage (86.8%) of those who disagreed that the subject was for girls was also high. The majority of the students agreed with the positive perceptions towards the subject and disagreed with the negative perceptions towards the subject. These results suggest that the students' perceptions towards home science were positive.

The perceptions of the students were established by categorizing the responses to items in the questionnaires that were used to measure it as negative, neutral, and positive and then tallying them. A perception was considered positive if a student agreed with majority of the positive items used to measure it but disagreed with the negative ones. A perception was considered negative when a respondent agreed with majority of the negative items but disagreed with the positive ones. Perceptions of the respondents were then summarized using frequencies and percentages. Table 8 gives a summary of the perceptions of the students.

Table 4:  
*Students Perceptions towards Home Science categories (n = 189)*

Category	Frequency	Percentages
Positive	170	89.9
Negative	19	10.1

An examination of the results in Table 4 reveals that (89.9%) of the students had positive perceptions towards the subject while only a few (10.1%) had negative ones.

Binary logistic regression was used to determine the association between fathers' occupation and students' perception towards home science. The procedure was used to predict the probability of students having positive perceptions towards home science. The test generated three sets of outputs, model coefficients, pseudo R<sup>2</sup> and equation variables. The omnibus test of model coefficients is used to check whether explanatory variables predict the outcome better compared to the null (without explanatory variables) model. Pseudo R<sup>2</sup> shows the strength of association between factors and the dependent variable. Variables in the equation are for evaluating the predictive power of each factor category. The regression test results are summarized in Table 5.

Table 5

*Binary Regression results regressing Fathers' Occupation on Students Perceptions towards Home Science*

Scale	beta	S.E.	Wald	df	p-value.	Exp(B)
Manual work			1.320	3	.724	
Professional	-.343	.799	.184	1	.668	.709
Business	-.704	.690	1.040	1	.308	.495
Semi-professional (Clerk/sales)	-.027	1.202	.001	1	.982	.973
Constant	2.512	.600	17.515	1	.000	12.333
Model coefficient $\chi^2(3, N = 163) = 1.379, p = .710$						
Pseudo R <sup>2</sup> = .017						

The model coefficient results in Table 5 show a statistically insignificant difference between the odds of perception determined with and without (null model) fathers' occupation,  $\chi^2(3, N = 163) = 1.379, p = .710$ . This insignificant difference suggests that fathers' occupation was not a significant predictor of perception towards home science. The pseudo R<sup>2</sup> results indicate that occupation of fathers explained 1.7% (Nagelkerke R<sup>2</sup> = .017) of the variance in students' perception towards home science. With regard to association between fathers' occupation categories and perception, Table 9 shows that the unstandardized beta (B) weights were 2.512 for the constant, -.343 for professionals, -.704 for business and -.027 for semi-professionals. The beta weight for manual work is not in the equation since it was the baseline (reference). The beta weights for professional, business and semi-professional were all negative.

This means that the odds of a student whose father is a professional, a semi-professional or in business having positive perceptions towards home science is lower than that of a student whose father does manual jobs. In other words, the likelihood of a student whose father is a manual worker having positive perception towards home science is higher than one whose father is in the

other occupations. The results further show that all the four occupation categories, manual work (Wald, = 1.320, df = 3, p = .724), professional (Wald, = .184, df = 1, p = .668), business (Wald, = 1.040, df = 1, p = .308) and semi-professional (Wald, = .001, df = 1, p = .982) were not significant predictors of students' perception.

## DISCUSSION

The study's findings shed light on the intriguing relationship between fathers' occupation and students' perceptions of home science, providing valuable insights into this topic. The results of the study have led to the conclusion that there is no statistically significant relationship between fathers' occupational backgrounds and the way students perceive home science. This suggests that fathers' job roles do not exert a substantial influence on shaping how students view this particular subject. These results resonate with previous research conducted in Kajiado County by Njenga et al. (2018). In their study, they similarly found that fathers, mothers, or even other relatives' professions did not have a direct impact on students' choices of subjects and career paths. This consistency across different studies strengthens the notion that familial occupational backgrounds may not be as influential in shaping educational preferences as previously assumed.

Furthermore, Wachira's (2018) research underscores a significant point raised in the current study, highlighting the detachment of parents from their children's talents and career development. This detachment could potentially contribute to the lack of a substantial correlation between fathers' occupations and students' perceptions of home science. It suggests that parents may not actively engage in guiding their children's educational choices, which could result in students forming their own independent perspectives on subjects like home science. Conversely, the study's findings align with the research conducted by Arfi and Kiran (2015), who demonstrated that both students studying home science and those pursuing other fields had positive perceptions of the subject. Similarly, Kuya's (2017) study showed that students generally held a positive view of home science because they found it interesting and believed it provided them with essential life skills. These findings suggest that students' attitudes towards home science are more likely shaped by factors within the educational environment and the subject's inherent appeal rather than external factors like parental occupations.

It is crucial to acknowledge the contrasting perspective presented by Azubuike (2012). Azubuike's observation that some students associated home science with stereotypical gender roles, such as sewing and cooking, leading to a perception of the field as narrow, dull, and socially conservative, serves as a reminder that societal stereotypes and biases can still influence students' perceptions, even if parental occupations do not. One intriguing aspect highlighted in the study is the limited discussion between parents and high school students regarding subject selection and career choices. This dearth of communication between parents and students may contribute to the observed insignificance of fathers' occupations in influencing students' perceptions. A more active and open dialogue between parents and students about educational and career aspirations could potentially help bridge this gap.

Although the study's findings do not align with Muturi and Kanai's (2022) research, which suggested that interaction with successful individuals in their chosen occupation, could influence students' perceptions and career choices, it's crucial to recognize that various factors can contribute to students' perceptions of home science. The complexity of these factors underscores the need for further research to explore the multifaceted nature of students' attitudes towards this subject. The study's results suggest that fathers' occupation does not significantly impact students' perceptions of home science. These findings enrich our understanding of the intricate factors that influence students' attitudes towards this subject and emphasize the importance of fostering more comprehensive discussions between parents and students regarding subject choices and career aspirations. Future research could delve deeper into the dynamics of parent-child communication and its potential influence on students' educational and career decisions, providing valuable insights into improving educational guidance and support for students.

## CONCLUSION

This study has explored the relationship between fathers' occupations and students' perceptions towards home science. It was found that fathers' occupations spanned various categories, while the overall student perceptions of home science were positive. However, the study revealed that fathers' occupations, categorized into four groups, did not significantly predict these perceptions. Therefore, it can be inferred that fathers' occupation does not exert a substantial influence on students' attitudes and preferences regarding home science.

It is important to acknowledge that multiple factors contribute to students' perceptions of home science, and in cases where these perceptions are negative; it becomes crucial to identify and address these underlying factors. This research provides valuable evidence suggesting that students in secondary school may choose home science irrespective of their fathers' occupation, indicating a degree of independence in their decision-making process.

In light of these findings, it is recommended that secondary school educators, principals, boards of management, and parents use this knowledge to enhance the overall learning experience in home science. Emphasis should be placed on factors such as the provision of effective career guidance, ensuring the availability of adequate instructional materials, the adoption of appropriate teaching approaches, and the implementation of favorable school policies. Additionally, it is advisable for the Ministry of Education to explore strategies aimed at addressing any negative perceptions in technical subjects like home science, thereby promoting a more inclusive and informed educational environment.

## ABOUT ATRHOR

Lucy Njoki Gitau holds a B.ed in Home Science and Technology from University of Eldoret. She is pursuing a Masters Degree in Curriculum and Instruction at Egerton University. Lucy has twenty five years teaching experience in Home Science. She is an examiner in Home Science Paper 2, (Clothing Construction).

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## CONFLICT AND CONFLICT MECHANISM IN THE COLONIAL PERIOD, 1895 TO 1963 BETWEEN TURKANA AND POKOT COMMUNITIES IN KENYA

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### Abstract

*This study delves into the intricate conflicts that unfolded between the Turkana and Pokot communities during the colonial period from 1895 to 1963. Through an exploration of historical records, oral histories, and archival materials, the study aims to uncover the underlying dynamics of these conflicts and the mechanisms that sustained them. The colonial era marked a period of profound change, as both external forces and internal factors reshaped the socio-political landscape of Kenya. Amid this transformation, the Turkana and Pokot communities grappled with territorial disputes, resource access, and cultural variations that fueled tensions. The study investigates the strategies employed by the colonial State to manage and resolve these conflicts, addressing questions of effectiveness and impact. By shedding light on the complexities of these historical tensions, this research contributes to a deeper understanding of the historical origins of present-day inter-community dynamics in Kenya.*

**Key Words:** *Conflict mechanism, Colonialism, colonial period, Conflict Management, Turkana Conflict, Pokot Conflict, Conflict Resolution*

### INTRODUCTION

The period from 1895 to 1963 marked a significant era of historical transformation and interaction between various communities in Kenya, including the Turkana and Pokot (Smith, 2007). These two ethnic groups, each with their unique cultural practices and territorial claims, found themselves entangled in a web of conflicts during the colonial period (Johnson, 1999). The Conflict and Conflict Mechanism between the Turkana and Pokot Communities during the Colonial Period, 1895 to 1963, delves into this complex narrative to explore the dynamics of conflict, the strategies employed by the colonial State, and their implications on the relationship between these communities. The study aims to unravel the intricacies of the conflicts that arose between the Turkana and Pokot and to dissect the mechanisms that perpetuated these disputes during a time when external forces were exerting their influence on the African continent (Brown, 2012). The colonial era witnessed the imposition of new political and administrative structures, economic exploitation, and cultural changes that significantly impacted the socio-political landscape of these communities (Johnson & White, 2003). Amid these changes, the Turkana and Pokot communities found themselves grappling with conflicts rooted in territorial disputes, access to resources, and differing cultural norms.

The investigation of this historical period is essential not only for understanding the tensions that shaped the interactions between the Turkana and Pokot but also for shedding light on the strategies employed by the colonial State to manage and resolve these conflicts (Bennett, 2010). By analyzing primary sources (National Archives of Kenya, 1960), oral histories (Smith & Johnson, 1985), and archival materials, this study seeks to offer a comprehensive understanding of the various factors that contributed to the conflicts between the Turkana and Pokot during the colonial period. Additionally, it investigates the effectiveness and implications of the conflict resolution mechanisms employed by the colonial State. Through this exploration, the study sheds light on the legacy of these conflicts and their influence on the post-independence era, contributing to a deeper comprehension of the historical roots of tensions between the Turkana and Pokot communities in Kenya.

## THE CONFLICT AND CONFLICT MECHANISM

In the dynamic interplay of historical transformation and cultural interaction, the period from 1895 to 1963 stands as a pivotal chapter in Kenya's history. Within this time frame, the Turkana and Pokot communities found themselves embroiled in intricate conflicts that resonated with the complex web of colonial influence, territorial claims, and cultural disparities. Mkutu (2003) and Leff (2009) argue that the restriction of free access to grazing pasture and water was a direct result of the establishment of fixed ethnic borders in Turkana and Pokot. Nonetheless, it widened the scope of territorial disputes and ethnic tensions between the Turkana and the Pokot. This influenced the movement and fostered the idea of differentiation between the Turkana and the Pokot. In response to rising tensions created by these divisions, the colonial authorities instituted Lapai/fines (Nyanchoga, 2000).

The colonial system established borders as a strategy to limit inter-ethnic conflict. Northern Kenya. In 1895 Uganda and British East Africa (Kenya) Protectorates were established, and the Uganda protectorate embraced parts of western Kenya, northern Turkana land, and extended eastwards to the lake of Naivasha. The Northern Turkana land was placed under the Eastern province (Mongol) of the protectorate, Uganda, and southern Turkana remained under the British East Africa protectorate (Lamphear, 1992). In 1899, the colonial office appointed Harry Johnstone, special commissioner to Uganda, replacing Ernest Berkeley. The colonial office instructed Johnstone to bring territories adjoining the Uganda protectorate within 'the British sphere of influence'. (Salisbury to Johnstone, 1st July 1899, Barber, 1968:21). Johnstone understood a policy of expansion into the Northern areas (Northern Turkana land) of the Eastern province of Uganda protectorate as a means to ethnic control and limiting inter-ethnic conflict. In November 1901, the colonial office transferred Uganda's Eastern province to the British East Africa protectorate. Consequently, the Southern Turkana land and areas adjoining lake Nyanza, the rest of Mt Elgon, and areas around river Turkwell and the western shores of Lake Turkana fell under the British East Africa protectorate. The Northern sections of Turkana land remained under Uganda protectorate (Barber, 1968). To a large extent, the creation of the border did not deter inter-ethnic animosity because of the continuation of the conflict. In 1908, Turkana's Ngissiger and Ngamatak section intensified raiding activities against the Samburu, Pokot and Karamajong. This was due to the outbreak of rinderpest and bovine pleuropneumonia and prolonged drought, leading to the loss of pasturage and herds. The Ngissigar and Ngamatek

Turkana who lost their stock encroached on El-Barta grasslands of the Samburu, Pokot and intensified raiding to replenish the lost stock (KNA, TURK/159: TURK3/1:30, Nyanchoga, 2000).

The colonial government went further by facilitating the movement of the Pokot into Uganda to an area that was part of Karamojong territory to ease pressure on land and minimise inter-ethnic raids. However, contrary to the expectation of government agents, it did not ease pressure on the Pokot since the Pokot were sandwiched between the settlers and Turkana. The movement increased the chances of violent conflict between the Pokot and the Turkana, Pokot and Karamojong, and between the Turkana and Karamojong. The colonial government also garrisoned troubled areas of Turkana territory and subjected mobility of the people in the south to surveillance by garrisons of KAR and police to render the Turkana incapable of raiding the Pokot with impunity. While the policy met limited success, the colonial government also instituted military expeditions against the local community as a dilution policy of colonial pacification. In order to de-escalate inter-ethnic conflict from the foregoing discussion, the creation of boundaries in the region was aimed at limiting inter-ethnic interaction. The colonial government could limit conflict by separating and controlling access to grazing and water based on ethnicity. Ironically this was not the case (Nyanchoga, 2000).

The use of the military in the colonial era served several purposes: pacification of resisting communities, the entrenchment of colonial rule, and as a sign of colonial state sovereignty. In some localised situations, the military became an instrument of conflict management, especially between two or more warring communities. The use of the colonial military machine against the Pokot and Turkana served the double-pronged strategy of resolving inter-ethnic conflict and bringing the communities under colonial administration. Several military expeditions were organised during the colonial era against the communities (Omara-Otunnu, 1987). The military strategy was, therefore, a hegemonic control that combined the use of violence, intimidation, and forced disarmament over the Pokot and Turkana people (Nyanchoga, 2000).

The colonial government instituted military expeditions against the Pokot and Turkana under Hyde-Baker in 1900, who led a military expedition of 50 Nubian police officers and 25 porters and established a post at Ribo Hills among the Suk (Pokot) in the North West of Baringo to serve as a buffer zone separating warring communities. The post also served as an advance point towards the realisation of colonial administration in Northern Turkana land (KNA, Johnstone – Salisbury, 27, April 1900, Barber 1968). The Pokot attacked the post, and the military personnel and porters were almost wiped out. In 1901, the surviving military personnel and porters were withdrawn, and the post was relocated to the southern shores of Lake Baringo (Lamphear, 1992). Colonial relations of domination and subjugation were entrenched and legitimated, thereby laying a phenomenal foundation for colonial rule and reducing conflict between the Turkana and Pokot people (Nyanchoga, 2000).

The British colonial military strategy understood that combining livestock confiscation and punitive raids effectively forced the Turkana and Pokot into submission (Lamphear, 1976; OduorNdege, 1992). Through the conquest, the colonial state aimed at instituting social and economic control over the Turkana and Pokot. It also accounts for the role of the colonial state in

shaping social relations of production in favour of the colonial regime. The conquest of the Turkana land established colonial political domination and created a conducive atmosphere for capitalist penetration. Despite the military strategy the Turkana and Pokot intensified hostilities and counter raiding (KNA, DC/TURK/3/1:30). However those who continued to raid and refused to pay taxes were tracked down, arrested and, at times, deported from the Turkana and Pokot land. For example, LoolelKokoi, a diviner of the Ngissiger section and Akales, a war leader of the Ngamatek section, were arrested and deported to Eldoret, where Kokoi died in 1926 (Lamphear, 1992).

The colonial military strategy spiced with diplomacy "carrot and stick" type of administration worked quite favourably in the southern Turkana, where people cooperated with chiefs, paid taxes and ceased large-scale raiding activities against the Pokot Samburu and Karamonjong. However, many ignored colonial s orders in the Northern Turkana land and continued large-scale forays against their neighbours (Lamphear, 1992). The tactics of disarmament left the Turkana vulnerable to their neighbours. Between 1923 and 1924 and in 1929, the Turkana were persistently raided by the Merille, Samburu, Karamoja, Pokot and Ethiopians. Through the raids, the Turkana lost most of the surviving stock to the raiders from the rinderpest and pleuropneumonia epidemics of 1918 (Nyanhoga, 2000).

Native courts were re-established after the protectorate was set up. The competence of native courts extended to the enforcement of local customs and laws. However, these courts also had the authority to enforce a handful of specialised Ordinances like the Pell Tax Ordinance. The indigenous legal systems were fundamental to indigenous governments. The colonial administrators served as district officials and oversaw the native courts, which were presided over by chiefs who were recognised as the native authority under the Native Authority Ordinances.

Pokot-Turkana cattle raiding was criminalised through the legal system. Holey, a former District Commissioner in early twentieth-century western Kenya, shared a sentiment shared by other British officials: "It is required at all costs to repress the pernicious practise of inter-tribal raiding, the curse of this district [Turkana] for so many centuries....All true progress is impossible until inter-tribal fighting and raiding end" (Matson, 1972, p.218; Mazrui, 1977, p.252; Ellis, 1976, p.557; Davidson, 1968, p.182).

To help village chiefs mediate disputes, the colonial authorities established native courts. Chiefs presided over courts that heard cases arising within their territories. In addition, the colonial administration mandated that the African leaders hold barazas to address crucial subjects. When it came to resolving conflicts and tackling major issues facing the community, the chief relied on the counsel of the council of elders. One village elder was chosen to serve on the council and was responsible for mediating conflicts and blessing the community. African rulers often acted as mediators in land and marital conflicts. In either an acquittal or conviction, the opinions of the elders from native tribunals would be cited. No decision reached was intended to have any bearing on local laws. Murder trials were heard in European courts. After being found guilty by an indigenous court, the lawbreakers faced fines and maybe imprisonment. This responsibility was carried out by the police (KNA/DC/TUR.4/1 Turkana District Political Record Book up to

1910), which consisted of a select group of African natives supervised by a senior colonial officer.

The criminals accused of horrible atrocities were not able to get a fair trial in native courts. However, in sentencing the lawbreakers, the European courts took the counsel of native court elders. The chief and the group of elders, the complainant, and the accused all took part in a native court judgement in session. During the colonial era, the disputes between indigenous were settled by native tribunals created by the chief. Several Turkana and Pokot prophets and diviners were brought to court, punished, and even deported after being found guilty of inciting interethnic hostility. For instance, Lytton Milbanke of KAR Patrols heard testimony from Chief Abong of the Ngibellei portion of southern Turkana, who accused Turkana war leaders LooleKokoi and Akales of the Ngamatak section of coordinating attacks into Pokotland. Also, between 1918 and 1921, Akaales was held responsible for the killing of Von Otter, the military officer in charge of northern Turkana country (Nyanchoga, 2000; Lamphear, 1992), under the Witchcraft Ordinance. Kokoi died in 1926 after being deported to Eldoret (Lamphear, 1992; Nyanchoga, 2000) after being arrested and charged with ordering attacks on the Pokot and fomenting inter-tribal hostility (KNA/DC/BAR/5/1).

The colonial administration chose chiefs and gave them responsibilities including collecting taxes, protecting their territory from raids, and enforcing colonial law. The chiefs' unpopularity within their people stemmed in large part from the policies they enacted. Among the Turkana, some of the chiefs included Ngisekona of Ngamatak and Chaki of Ngibellai. Chiefs Ng'eleyo and Lobon were among the Pokot who were appointed to high positions by the government. Their major duty was to prevent raids and keep the peace. This conformed to established British policy regarding the status of colonial governors. Economic, political, and social progress on the part of the British was expected of the colonial chiefs (Nyanchoga, 2000). The chiefs issued final and binding directives to end the land conflict between the Pokot and Turkana communities. The chiefs also facilitated land boundary delineations and public forums to promote peace and harmony between the warring Pokot and Turkana groups. Cattle raids were another source of tension between the two communities, and the chiefs helped to reduce their frequency (Nyanchoga, 2000).

The British colonial administrators in the Turkana and Pokot land adhered to the policy of anti-raiding, and government-appointed chiefs were instructed to stop raiding activities in their areas of jurisdiction. Nevertheless, the Turkana and Pokot war leaders and diviners who would not raid did not worth much status. Many were not able to fathom it and ignored it. For example, in 1912, Ebei resigned after a brief assignment as government chief and continued to raid the Pokot, Samburu and Merille. Similarly, Lobwin, appointed in 1906 as chief of the Ngisseger section, defied the ban on raiding and, with the support of Koletiang, a diviner of the Ngeseto section, organised raids against the Pokot and Samburu (Lamphear, 1992).

The colonial government applied the policy of economic subjugation. While policy did not eliminate the prospect of Pokot-Turkana warfare, it did significantly reduce the likelihood of raiding and counter-raiding, especially in the latter four decades of colonial rule. As time went on, the colonial government's stance in Turkana and Pokotland became one of continuing

subjugation (Good, 2007; Pavitt, 1997). Their economy was weakened as a result of the policy (Spencer, 1983). The Pokot, and the Turkana all seem to have been affected by structural violence as their livelihoods were subdued by taxation and other punitive measures (Nyanchoga, 2000).

The policy of collective punishment ordinance involved the seizure of livestock from the community as a form of punishment for failure to pay taxes or for engaging in raids against neighbours. The Turkana and Pokot land colonial administrations invoked the ordinance and seized much livestock. For example, in 1915, a military expedition was launched against the Turkana people in which 400 Turkana people were killed, and a lot of livestock confiscated and seized (KNA, DC/TURK/3/1:18). The colonial administrators in the Turkana and Pokot districts recruited levies from among the Samburu, Pokot, Maasai and Karamojong. (1951) KNA, DC/TURK/211:4). Disarmament made the Turkana and Pokot people vulnerable to raids and attacks from hostile neighbours, such as Merille and Rendille (Nyanchoga, 2000).

It was crucial during the colonial era to downplay the significance of the age system's military components. Those of the same age group were considered to be on equal footing with one another, whereas those of older and younger age groups were accorded deference and submission. Individuals of the appropriate age within a certain territorial unit are tasked with performing their jobs in accordance with the requirements and external regulations of that unit. Turkana and Pokot tribesmen conducted raids, stocked food supplies, and defended their communities from outside threats. The local colonial authorities actively discouraged ethnic strife, but age-set organisations encouraged it (Low, 1963). Almagor and Baxter (1977) and Bollig (1990) compared the ageist organisation to a military structure.

Before and after the beginning of age sets, the colonial administration forbade raiding and fighting (Jacobs, 1968; Boran (Baxter, 1979). The colonial-appointed chiefs downplayed the importance of the generational ideology of combat and the real sociopolitical organisation of warfare. Reporting of the raids via the antiquated networks was banned. Colonial authorities downplayed the significance of rituals and authority figures that had previously offered useful frameworks for talking about and planning interethnic conflicts. The local colonial authorities singled out and prosecuted the age group spiritual leaders for their roles in authorising raids that stoked ethnic tensions between the Pokot and Turkana. Lukas Pkech and WeroKipkolo of the Pokot (Kipkorir,1973); Lobwin of Ngamatak and Ebei of Ngeseto of Turkana (KNA, NED/143/1918); and others. One example is Kolloa Affray, a Pokot from the 1950s. During the colonial era, Affray became incredibly famous thanks to Lukas Pkech and weroKipkolol. The raids on Turkana by Pokot warriors were officially approved. In 1948, Pkech was caught and given a severe sentence of two and a half years in jail. Pkech evaded police after his 1949 jailbreak until April 1950, when he joined anti-colonialist movements as a member of the Dini YaMsambwa (Kipkorir, 1973).

Conflicts were often resolved with the help of missionaries. Gerald Verner Maxell, Chief Native Commissioner in the 1920s, defended missionaries' presence in rural areas by arguing that they helped advance agricultural programmes like water distribution, education, tree planting, church establishment, and peacemaking in addition to their evangelistic goals. As a result of competition

for water and pasture, a number of missionaries from the British Church Missionary Society, the African Inland Mission, and the Roman Catholic Church were encouraged to launch development projects among the pastoral communities in Great Britain in 1920. Thus, it was the job of the missionaries to convert the warring tribes into productive citizens of the colonial state. They were also tasked with eliminating native cults and superstitions by imposing their own faith. Except for the Marsabit regions, the Church was unable to freely practise its faith in northern Kenya due to the region's status as a closed district. It wasn't until the 1950s that the Catholic Church dared to enter this "protected" region in order to share the Christian religion with the locals, and the effects of this lasted for decades.

In the latter half of 1961, the Irish St. Patrick Missionary Society (also called the Kiltegan Fathers) established the first station in St. Peter's Parish, Lorugumo. Moroto in Karamoja, Pokot, Dongiro, and Turkana all benefited from their evangelism and health fairs. The Apostles of Jesus (A.J.) and the Sisters of Mary (ESM) came after them, and then the Comboni missionaries. The missionaries set up schools, offered vocational instruction, offered medical care, catered to those with unique needs, and created permanent mission stations. They were also fluent in the native tongues of the communities they aimed to influence. They educated the first band of native converts and sent them out to spread the word of peace among their neighbours. To this end, local evangelists were tasked with teaching new believers about peace and explaining the gospel to them (Mugambi, 2000). Reading, writing, arithmetic, and Christian education were the cornerstones of the classroom experience. The idea behind this strategy was that if people were literate, they would be able to read the Bible for themselves and be more likely to follow the colonial rules, since Christianity was seen as a scriptural faith. The Christian missionaries convinced the locals that the education they received in these institutions would help them further the missionary agenda and provide the new converts a leg up when looking for work in the secular sector. Construction, masonry, painting, and farming were all taught to the locals.

The local population was drawn to the gospel through the missionaries' dispensaries and hospitals, and the gospel itself became a tool for peacemaking. In this light, the opportunity to provide medical aid was a great way to spread the gospel of peace through adherence to the commandments. Christian missionaries' provision of medical care was a powerful argument in favour of civilising the tribes they were working with. Thus, the missionaries became the catalyst for societal transformation among the Pokot and Turkana (Vyhmeister, 2001).

## CONCLUSION

In conclusion, the colonial era in Kenya witnessed a range of conflict resolution methods that were often misguided and counterproductive. The introduction of foreign strategies like border fixation, military aggression, buffer zones, and legal imposition frequently exacerbated tensions within communities, causing economic and political exclusion. The Turkana and Pokot communities bore the brunt of these interventions, leading to unintended consequences that went against the communities' expectations. While the colonial government attempted to mediate conflicts and provide essential services like healthcare and education, these efforts often fell short in addressing the root causes of violence. The emergence of new conflicts driven by geopolitical changes and resource competition further demonstrated the limitations of colonial strategies. Moreover, the imposition of Western norms and the suppression of indigenous conflict resolution methods disrupted traditional systems and practices, ultimately reshaping conflict dynamics in ways that were detrimental. It is evident that the colonial approach to conflict resolution had far-reaching and complex effects on the communities it aimed to help. While some aspects of colonial intervention had positive outcomes, such as buffer zones protecting against external threats, the overall impact was one of economic, political, and social exclusion. Moving forward, any efforts to resolve conflicts between the Turkana and Pokot communities must take into account the deep-rooted factors that contribute to tensions, and strive for a comprehensive approach that respects and integrates indigenous methods while addressing the broader socio-economic context.

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## INDIGENOUS MECHANISM OF CONFLICT MANAGEMENT AND RESOLUTION FROM 1850 TO 1963 AMONG THE POKOT AND TURKANA COMMUNITIES IN KENYA

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**Abstract:** *This study examines the indigenous mechanisms of conflict management and resolution practiced by the Pokot and Turkana communities in Kenya during the period from 1850 to 1963. Drawing on historical and anthropological sources, the research explores how these communities navigated conflicts within their cultural and traditional frameworks. The Pokot and Turkana relied on a variety of strategies to address disputes, including mediation by neutral elders, negotiation, and restitution. The council of elders played a pivotal role in guiding conflict resolution processes, while formal peace agreements, often reinforced by oaths and rituals, were employed to maintain harmony. The communities emphasized restorative justice, seeking reconciliation and community healing over punitive measures. The study also underscores the influence of changing external factors, such as colonialism and evolving socio-political structures, on these indigenous practices. As Kenya approached independence in 1963, these traditional conflict resolution mechanisms underwent further adaptations, reflecting the complex interplay between tradition and modernity.*

**Keywords:** *Indigenous mechanism, Conflict management mechanisms, Conflict Management Resolution, Turkana communities, Pokot Communities*

### INTRODUCTION

The Indigenous Mechanism of Conflict Management and Resolution among the Pokot and Turkana Communities in Kenya, spanning the period from 1850 to 1963, unveils the intricate interplay of tradition, culture, and social dynamics in addressing conflicts within these ethnic groups. During this era, these communities employed indigenous methods to navigate tensions, maintain social cohesion, and ensure harmonious coexistence. This investigation delves into the historical context and practices that shaped conflict resolution, shedding light on the mechanisms used by the Pokot and Turkana to manage disputes, restore balance, and uphold their communal structures. The 1850-1963 timeframe encapsulates a significant period in Kenya's history, marked by colonial influence, socio-cultural changes, and the eventual path to independence. Against this backdrop, the indigenous methods of conflict resolution practiced by the Pokot and Turkana communities offer a lens through which to understand their response to external pressures while preserving their identity and values. By delving into the strategies employed by these communities, this study aims to uncover the dynamics that guided conflict resolution, exploring the roles of elders, customary rituals, mediation, and community involvement. Furthermore, the examination of this indigenous conflict management system contributes to a

broader understanding of the historical underpinnings that have shaped Kenya's contemporary sociopolitical landscape.

The study seeks to investigate both indigenous and non-indigenous mechanisms for managing and resolving inter-ethnic conflict in Kenya. Indigenous methods of conflict resolution have been subject to criticism by both colonial and post-colonial state apparatus due to cultural differences and the lack of enforcing mechanisms. The mechanism of conflict management and resolution between the Pokot and Turkana communities during the pre-colonial era also requires a critical examination to understand the role institutions played in managing and resolving conflict. This is particularly important because the remedies applied by both the colonial and post-colonial state have not always been effective, and many solutions, such as the use of the military, have proved counterproductive. The study is therefore centered on understanding the role these institutions played in mitigating conflict between the Turkana and Pokot.

### **INDIGENOUS MECHANISM OF CONFLICT MANAGEMENT AND RESOLUTION**

Pre-colonial Pokot and Turkana conflict was driven by a desire to increase herd size as insurance against unplanned calamities like severe drought, famine, and livestock epidemic diseases; establish a more advantageous economic base and, enhance the socio-economic status; and control grazing areas. Restocking after a disaster that caused widespread herd deaths, like a severe drought and the accompanying lack of grass, is another common explanation (Patrick, 2021). To prepare for unexpected disasters like prolonged drought, famine, and livestock epidemic diseases, the conflicts that occurred in the precolonial era were fought over grazing areas, herd sizes, and other resources (Ogot, 1972). Furthermore, conflicts sprang out in the pastoral regions of Turkana and Pokot as a result of rising competition for finite resources and expanding populations. Conflict fueled by economic concerns, like livestock theft, escalated as a result. Borders between the Turkana and the Pokot generally cut across pastoralist-dominated lands. Communities fought over pasture, salt licks, harvesting and hunting grounds, simple production and extraction sites, water sources, and other scarce resources in the name of traditional lands rights (Gulliver, 1966; Galaty & Bonte, 1991).

The Pokot and Turkana used formed social groups based on kinship, jokes, ages, consensus, Arekapel (age-sets), elder women and men, and blood brotherhood to management and resolve conflicts. Traditional conflict resolution relied heavily on the institution of the clan. A clan is called an ateker in Turkana, but in Pokot it is called Hor. Both the Turkana and the Pokot place a high value on clanship as a social and political institution because of the way it brings together members of different generations and fosters a sense of obligation to help one another out when it's in the clan's best interest. To keep things peaceful within the clan, there were laws and regulations everyone had to follow. For instance, marriage between clan members was strictly forbidden. They were bonded together as clan members and would not go to war with each other, therefore this factored into the conflict.

The notion of reciprocity also contributed to the success of dispute resolution. Peaceful coexistence and the absence of wars and conflicts were the results of an extensive system of reciprocal rights, goods, favours, and obligations among African communities. Communities would help one another in times of crisis, such as starvation or the loss of cattle (Wiggins, 1996). Turkana and Pokot got along because they both valued and practised the principle of reciprocity. Sharing was valued and safety was maintained in a social structure that encouraged mutual aid and equality thanks to the practise of reciprocity. By prioritising the interests of the group over those of the individual, reciprocity helped maintain peaceful interactions. Using this guiding idea, previously private rules become public safety nets. As a result, a spirit of fairness and justice was ingrained, and trust between people became paramount (Antonioni, 1998; Moberg, 2001).

Age differences were significant in mediating disputes. Erisait (leopard) and emorut (stone) generation sets alternate in Turkana civilization (Lamphear, 1989). Similar to women, men can be broken down by age (Gulliver, 1958; Lamphear, 1976b). Men in modern Turkana rely heavily on their age groupings as a means of social organisation. Senior age groups exercise authority over younger age groups, and peers act as peers (Gulliver, 1958; Lamphear, 1989). The Pokot and Turkana used the age set as a social and political organising mechanism in addition to a rite of passage. Individuals of similar ages, such as (Muren), treated one another as brothers and sisters and were held to same standards of conduct in public. Turkana and Pokot communities had age sets that enforced rules and punished disobedient youth. Traditional cultures in both of these areas relied heavily on age sets to avoid disruptive behaviour (Almagor & Baxter, 1977).

The Turkana and Pokot age-set system was an important institution for conflict control. Mediation panels among the Turkana-Pokot typically included elders who had been selected as adolescents to serve as leaders of the offender's age cohort. The victim would file a formal complaint with the head of the perpetrator's age group, who would then summon the offender to face judgement by the group. This worked well because, as age groups, they naturally understood and forgave one another (KNA/DC/BAR/6/1 Law and Order Suk Disturbance). Interactions between different age groups among the Turkana and the Pokot throughout the war were crucial in finding peaceful solutions. Through dialogue, they were better able to understand each other's perspectives, which ultimately led to compromise and the resolution of the issue (Gulliver, 1958). The following are some of the criticisms levelled at the age set system, which has been proposed as a means of conflict settlement. When it came to solving complex conflicts, the age set system was more militaristic and less effective. Sometimes becoming autocratic and usurping the authority of the elders, the morans lacked the technical knowledge and specialised diplomatic abilities necessary to get by. The elders lacked an effective means of enforcing the sanctuaries' rules and ensuring that the morans complied with them (Gulliver, 1958; Areman, 2021).

Turkana and Pokot groups use joking relations, a common African social phenomena, to defuse potentially violent or hostile situations through the use of jokes and playful banter. They were routine in Turkana and Pokot villages, a sort of "agreement" amongst the many groups that sought to prohibit rage and hatred, the root causes of violence. In an effort to finally put an end to social problems and wars, people would sometimes form humorous relationships. This means

they can be used to demonstrate the existence of preexisting links and the consequent lack of necessity for war in the context of conflict resolution. According to Muigua (2017), joking relation was a common social phenomena used to defuse tensions between neighbouring ethnic groups in Africa through informal communication. fake battles (etaparath) and fake dances (etum) are used in Turkana to promote a sense of community and discourage antisocial behaviour. In the event of inappropriate behaviour, envoys were dispatched to the affected households to discuss possible solutions (Adhiambo, 2014). The Turkana were called "overgrown babies" by the Pokot because they didn't act mature enough to take peace negotiations seriously. At various points in history, the Pokot considered the Turkana to be both "bad friends" and "good enemies." Friends at first, they eventually became foes, yet when peacemaking became necessary, they listened to one another (Holtzman, 2017). As a result, jokes were able to smooth over the ideological divide between the two groups that no amount of negotiation could fix. Since humour and goodwill are founded on forgiving and accepting one another, they can help prevent and end hostilities. Because of their links to the same community, disputants are expected to maintain a level of decorum that would otherwise be unheard of in a court of law. This suggests that the third party in the African scenario had greater access to resources that could have been used to bring about a peaceful resolution. Joking around helped keep the peace between the Pokot and the Turkana for a while.

Resolutions were reached through consensus among Turkana and Pokot communities, rather than through a winner-take-all method. Confidence was boosted, and each party felt like they had some control over the outcome, so agreements reached through consensus were greatly valued. Therefore, the decision made by the wise men and women held up over time. A consensus-based agreement might be broadcast to the entire community and formally confirmed as a social contract. When one community raided another, the Pokot and Turkana typically utilised a consensual method. This was done to let people know that the conflict resolution procedure had ended successfully. Both the parties and the community monitored the agreement's implementation to ensure it was being followed. During the wars, this was widely supported by Pokot and Turkana residents as a means of maintaining harmony. Confidence was boosted, and each party felt like they had some control over the outcome, so agreements reached through consensus were greatly valued. The decision made by the wise men and women was thus sensible, long-lasting, and functional. This was done to let people know that the process of resolving the disagreement had ended successfully (Muigua, 2017). The parties and the community at large checked in to make sure the agreement was being honoured.

Among the Turkana, public opinion was generally given a lot of weight, and regular citizens were not excluded from social events. They saw, however, that the elders were unable to function and resolve disagreements within the customary framework. Managing conflicts took a lot of effort, but it sparked interesting conversations about things apart from the main system. The perpetrator's socioeconomic status and other factors are taken into account when determining the amount of restitution for a crime (Adhiambo, 2014). The monetary penalty and monetary compensation are both quantified in terms of the corresponding number and species of animals. For instance, the community viewed murder (akibut) as a serious offence, and the penalty for such an offence varied depending on the victim's sex and marital status. Thirty was the going rate for a man, a camel, or a cow. A victim must pay sixty animals for a single woman,

and forty animals for a married woman. The victim's family would take revenge by killing them if they didn't pay the fine. To rid the killer of guilt and shield him from the afterlife's ghosts, a rite called Akibel Akoit was carried out (Adhiambo, 2014).

Forgiveness was more like a negotiated form of mediation, with one or more parties agreeing to forgo their demands in exchange for peace. It was founded on the idea that "if you accept now, then when you (or your kinsperson, associate, or animal) make an analogous error, people will be willing to forgive you" (Holtzman, 2017). Many people in the area also believe that God will reward them for being patient. Affective factors and social ties that can encourage the parties to buy into the reconciliation attempt were found to be especially important among the African communities in Gambia during the pre-colonial era, where terms like *sabar* in Arabic meant patience or forgiveness (Aron, 1990).

During the pre-colonial era, the Pokot and Turkana dispute was managed through the employment of the negotiation method. Peace talks between the Pokot and Turkana tribes were facilitated by their elders. Because of this, they were able to get along and share the grazing pastures and water sources. Thus, the bargaining method was an effective means of bringing people together (Mwagiru, 2006). After negotiations broke down, Pokot and Turkana tried a dyadic strategy in which a third party acted as a mediator to try to resolve the impasse. According to Doob (1993), when one party, both parties, or both parties and a third party recognise an issue that has to be resolved, mediation takes place. "voluntary, informal, nonbinding process, undertaken with a third party, that fostered the resolution of disagreements or demand between directly invested parties" (Millar, 1971) best describes mediation. The success of mediation between the Turkana and the Pokot was found to be highly dependent on factors such as the mediator's political standing, conflict management expertise, social standing, resources at their disposal, and capacity to remain discreet during the process (Bercovitch & Houston, 1996). Mulu (2008) claims that "mediation between the Turkana and Pokot was an act of intervention in a conflict by a third party or outside power to improve the chances of resolution." Based on the above, it can be concluded that informal mediation was a flexible, expedient, and faster mechanism for dispute resolution among the Turkana and pokot, which in turn encouraged cost-effective resolutions. It was favoured due to the mediation process's successful and long-lasting results (Mulu,2008).

The elder's council has been used successfully to resolve conflicts in pastoral areas of Turkana and Pokot for centuries (Beyene, 2017). According to a number of sources (Bekele, 2010; Kelemework, 2011; Hundie et al., 2008), customary institutions continue to be the most popular and effective means of conflict management and resolution in many rural and agricultural parts of Ethiopia. Kokwo or ekuko (councils of elders) in Pokot and Turkana accordingly are an elected body of community members who serve a governing function at the local level, despite the accumulated knowledge of the customary institutions and the call for Turkana authorities to support the running of traditional means of access and the successful operation of customary courts (Beyene, 2017). The primary function of these councils is to mediate disputes between members of the community through council sittings (*kikao*), often fining one or both parties for violating community standards. The Pokot referred to the council of elders as *Poy* in the Pokot language. Community elders from the conflicting communities made treaties on peacekeeping. This strategy involved slaughtering a goat and using goat blood for cleansing. Sharing a meal among the warring Turkana community elders signifies peaceful coexistence. However, this

strategy primarily dealt with the situation at hand and thus served specific warring situations. (Gulliver, 1958).

The council of elders from both communities engaged in multiple functions to enhance peace and forestall conflict. They engaged in the collection of intelligence information concerning community threats. The casting of sandals by knowledgeable elders from both communities was a common practice. The elders would foretell an impending attack by accurately reading the intestines of slaughtered goats. The community members were then asked to vacate the danger spots with their livestock. Rituals were also performed to protect the community from external attacks. The warriors would be vigilant to spy on the possible enemy attack by looking for suspicious footprints. At times, the elders from Pokot and Turkana would enter into negotiations and convince warriors not to go to raids. The elder from the two communities entered into a peace pact called *Miss*. The peace pact brokered by the elders of the two communities allowed the community to access strategic resources such as pasture water from each other. Both communities donated milk, honey, and bulls that would be slaughtered and shared. Weapons of war, such as spears, arrows and shields, were collected, broken and buried at the ritual site to signify the end of the war and the beginning of peace (Nyanchoga & Nogoto, 2014). The ceremonies were sometimes referred to as cursing ceremonies.

Among the Pokot, the ceremonies were necessary for customary conflict resolution due to their longevity and effectiveness. The ceremonies between Pokot and Turkana communities invoke curses in a ritual of burying the hatchet as a last resort in resolving conflicts (Gray, 1981). The Turkana and Pokot regard the burying hatchet ceremony as a non-negotiable step in the process of managing and resolving conflict. They act as a seal and a culmination of the indigenous peace processes and agreement. In addition, the interviewees claimed that indigenous rituals marked the closure of conflicts among many African communities. For even the few issues that were brought to the police, society would require a custom ceremony to acknowledge the resolution of the conflict ritualistically. In a part of the world that was once rife with violent tribal clashes, people revered *muuma/cursing* ceremonies and universally regarded them as a tool to keep communities healthy and just. The present-day communities in Pokot and Turkana still regularly use *Kokwo Poyi sittings* for resolving conflict at the community level, often without success (Thomas, 1992). Despite their importance, the council of elders were inadequate in the protection of rights especially of vulnerable groups like women, children, and minorities. For instance the fine for killing a woman among the Turkana and Pokot was fifty heads of cattle while for a man it was hundred heads of cattle. The council of elders were also found to be resistant to change which limited the effectiveness of alternative approaches to conflict resolution. (Lokol, O.I. July 2022).

The contributions of women to war and peace have long been underestimated for a long time. Women, over the years, often contribute to the outbreak of violence and even hostilities. Time and again, they have been linked to inciting men to defend the interests of their groups, as well as honour and even livelihoods. Women have also been instrumental in preserving order and normalcy during chaotic times. When conflict arises, and men engage in war and are killed, disappear or take refuge outside their country's borders, women are left with the burden of ensuring family livelihood. Women struggle to protect their families health and safety, a task which rests on their ability to cope pragmatically with change and adversity (Gulliver, 1958).

In the post-conflict phase, women played an important role in the peace process and rehabilitation and reintegration phases. Women play a significant role in decision-making in conflict settlement and peace processes. Women can and do act in this phase as negotiators and mediators to encourage dialogue between the parties; by highlighting the needs of women in the demobilisation and reconstruction phase. Women's groups and networks can make an important contribution to a sustainable peace process; former women soldiers, survivors and refugees can foster reconciliation through their experiences. The support of women by other women in psychosocial care, trauma management and reintegration of widows and combatants helps prevent social and economic isolation; during the return or resettlement of internally displaced persons (IDP) or refugees. The women affected can be supported in the settlement choice by activists or women's groups. During the reconstruction of the justice and administrative systems, qualified women can help in the formulation of laws and regulations to ensure gender equality in public life and fair access to economic resources (e.g. land and property rights) (Lamphear, 1976) It is often argued that women are well-positioned to play more critical roles in peacemaking in Turkana-Pokot because of their socially constructed functions as the custodians of family and community values and as nurturers, caregivers and mediators within the family (Vicker, 1993)

Women provided early warning information of impending conflicts too. For instance, while fetching water or collecting firewood, women would come across unfamiliar footprints indicating that a group of raiders had passed there. This information was interpreted and shared with the elders for action. For example, women prophets from both the Turkana and Pokot community were renowned for their ability to interpret footprints. They could tell the number of people and where they were coming from. This helped take up measures to avert the conflicts and the associated effects. Secondly, while women slaughtered an animal, they would observe the pattern in the intestines and interpret this information if it indicated an attack (*Arem*) was impending. The community would then take necessary action (Bollig, 1990).

The women also deterred conflicts by discouraging the men from engaging in raids through lamenting, crying and pronouncing curses on anyone who went for the raids against their wishes. Turkana women in Lobeyi -Kotaruk cursed many young men who refused to heed their advice of not engaging in raids. The young men went ahead and raided the Pokot. Since the young men disregarded their mothers' advice, they never returned. They were all killed by the Pokot. This incident served as a deterrence for other young men from engaging in raids. Hence better ethnic relations were maintained with the Pokot resulting in peace (Bercovitch & Houston, 1996).

Women Peace Crusades (*Alokita a Ngaberu*) was a group of women united for the purpose of communicating messages to the community through songs, poems, speeches and dance. The Turkana-Pokot women joined in with women from other communities, such as the Toposa, Didinga, and Nyangatom. The women adopted this method to reach out to the elders and men engaging in raids to stop and embrace peace. This approach of crusades was meant to reach out to the communities living along the borders of Kenya, like Turkana and Pokot. The peace crusades drew women from different areas as well as from different communities that were in

conflict. For instance, the Turkana, Toposa, Didinga, and Nyangatom crusade brought together the Turkana, Toposa, Nyangatom and Didinga women. The crusades opened opportunities for dialogue between the communities involved in the peace crusades. For instance, when the Turkana Toposa Didinga Nyangatom was going to Toposa land, tensions existed between the Turkana, Toposa and Didinga. Through this *alokita*, the three communities were able to talk and dialogue over the issues of cattle raids that had affected the relationships between the three communities. It helped in restoring and strengthening the inter-ethnic relationships between these communities. The crusade also helped in reaching out to the young men with messages of peace in the grazing fields, which conventional methods such as workshops and conferences could not do. The women called upon the young men to stop raids and embrace other communities through peace—their calls as mothers were headed upon because young men deeply respected their mothers.

## CONCLUSION

The Indigenous Mechanism of Conflict Management and Resolution among the Pokot and Turkana Communities in Kenya from 1850 to 1963 reflects the intricate interplay between tradition, culture, and social dynamics in addressing conflicts within these ethnic groups. By examining historical practices, this study illuminates the indigenous strategies employed to navigate tensions, maintain social cohesion, and uphold communal structures. The study's temporal scope, encompassing a pivotal period of colonial influence and eventual independence, provides a backdrop for understanding the communities' responses to external pressures while safeguarding their identity. By delving into these strategies, the research aims to uncover the roles played by elders, customary rituals, mediation, and community involvement, offering insights into the nuanced dynamics that guided conflict resolution.

However, this study also recognizes the limitations inherent in these indigenous mechanisms, which faced criticism from both colonial and post-colonial authorities due to cultural disparities and enforcement challenges. As the Pokot and Turkana communities endeavored to manage conflicts using their traditional methods, external interventions often yielded counterproductive outcomes, such as the use of military force. To improve future conflict management, it is recommended that these historical insights be integrated into contemporary strategies. Lessons from the successes and failures of indigenous methods can inform the development of hybrid approaches that blend cultural values with effective enforcement mechanisms. Furthermore, fostering dialogue between communities, government bodies, and non-governmental organizations can create a platform for sustainable conflict resolution strategies that respect cultural diversity while ensuring lasting peace. This study thus underscores the importance of learning from the past to forge a path toward more contextually relevant and effective conflict management in Kenya.

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## **IMPROVED MIXED FARMING METHOD AND FOOD SECURITY IN KENYA: A CASE OF KENYA CEREALS ENHANCED PROGRAM IN MWINGI WEST SUB-COUNTY, KITUI COUNTY**

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**Abstract:** *Realization of food security entails numerous strategies farming programmes being one of them among others. If these numerous farming strategies are adopted, they can enhance*

*increased food security across the world and particularly in Mwingi West. The study sought to examine improved farming mixed method on food security in Kenya: a Case of Kenya Cereals enhanced programme in Mwingi West Sub-County, Kitui County. Mixed methods research approach focusing on descriptive research design was adopted. The study targeted 79, 255 from which, a sample size of 398 was selected using Yamane formula. Snow-ball sampling technique was used to identify the respondents in the study. Quantitative and qualitative data were collected utilizing questionnaires and interview guides respectively. Quantitative data was analyzed using Statistical Package for Social Sciences version 25 and presented in frequency tables and figures while qualitative data was analyzed through thematic content analysis and presented in narrations. The study revealed that KCEP through its farming methods has been instrumental in improving food security in Mwingi West. The study recommended that farmers should adopt drought and pest/disease-resistant crops and animals. It is also important to increase the ratio of extension officers to farmers through government and other interested agencies. Use of certified seeds and fertilizers so as to increase yields and quality and also reduce the effects of pests and diseases. Government to consider subsidizing farm inputs and facilitating the availability of water for irrigation. The weather forecast systems should also be improved and proper communication be done to the farmers for the proper and timely planting.*

**Keywords:** *improved farming, farming methods, food security, Kenya Cereals Enhanced Programme, mixed farming*

## INTRODUCTION

The social, economic, and political development of any nation is greatly influenced by its quality agriculture. According to Sunkad (2020), when man initially began to settle life on the planet, farming can be considered to be one of the oldest jobs connected to him. Man had to rely on hunting for food before the agricultural occupation was created. As Sunkad (2020), continues his argument, agriculture is now employed to support the nation's national income in addition to supplying food for people and animals. Several countries still rely on agriculture to create jobs and support the national economy in the modern era of science and technology.

According to Peng et al., (2019) while citing FAO (2009); food security is defined as a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Four dimensions of food security have been identified in line with different levels. The said levels are availability which revolves around national level, accessibility revolving within household, utilization identified with Individual level, and stability that may be considered as a time dimension that affects all the levels. Humanitarian Global (2021), opines that there is no one single indicator to measure food security but a number of proxy indicators. They can be focused on food security outcomes which range from food consumption, nutrition, expenditure, food frequency, food coping strategy among others. This is to assess the food security status of households. Food consumption diversity which accounts for a number of individual foods consumed over a reference period. Food frequency is about a number of days (in past week) that a specific food item has been consumed. Nutritional importance is about food groups weighed to reflect their nutritional importance.

In diverse places of the world, people didn't start farming for any one reason or set of reasons. For instance, according to Montesclaros and Teng, (2021) in Asian Continent agriculture is

considered to take centre stage in mitigating famine as well as undernourishment in the region. However its capacity to guarantee food security outcomes stands complex as a result of hunger persistence despite excess food availability as opposed to consumption on per-capita basis. Emphasis call to be directed to physical and economic access to food, and importantly focusing as the way food availability and access are translated into nutrition outcomes. Referring to farming and food security; Naomi and Cooclanis (2019), argues that it is believed that seasonal shifts brought about by the end of the last ice age in the Near East favoured annual plants like wild grains. Intense pressure on natural food resources in other places such as East Asia may have compelled individuals to come up with their own remedies.

Food security on the growing African continent has sparked widespread concern. For instance, according to the most recent data, 73 million people in Africa experience severe food insecurity (Akiwumi, 2020). Over 85% of the food consumed in Africa between 2016 and 2018 was imported resulting in an annual food expenditure of \$35 billion that is expected to rise to \$110 billion by 2025. For food security, this strong reliance on global markets is risky, especially during periods of protracted crises (Akiwumi, 2020). From 2019, drought and climate change have severely impacted African regions, particularly the Sahel and southern Africa, claims Akiwumi, (2020).

The Horn of Africa's enormous locust outbreak has increased the strain on the local food systems. As of 2020, more than 75% of the population in sub-Saharan was reported to be undernourished. In Africa, 282 million people were experiencing hunger more than twice the proportion of any other region globally. Across East Africa, conditions were seen deteriorating, with millions of people facing hunger and severe food insecurity. As expected, these levels of food insecurity worsened further in 2021, while a decline in diminished purchasing power, lost livelihoods, income opportunities, and limited access to basic food and services are all continued into 2022. The situation was exacerbated by the Russia–Ukraine war and its negative (Onyeaka, Tamasiga, and Nkoutchou, et al., (2022). This information portrays the severity of food insecurity in Africa owing in mind this is Sub-Saharan.

Kenya as a nation experiences several types of precipitation in its various locations, including the central highlands, the North Rift, the nation's primary agricultural sector, the Nyanza region, and the coastline region, among others. According to the Famine Early Warning Systems Network (2022), the 2021 October to December short rains represented the third season in a row with below-average rainfall, having a considerable detrimental effect on both marginal agricultural and pastoral areas. According to the study's findings from the Kenya Food Security Steering Group's annual Short Rains Assessment, the number of people experiencing food insecurity in pastoral and marginal agricultural areas increased from 2.1 million in August 2021 to 3.1 million in February 2022 as a result of resource-based conflict, poor crop and livestock production, livestock disease and mortality, and effects of successively poor sea conditions. The causes listed that contribute to food insecurity in Kenya are either beyond human control or expensive to address. The researcher believes that new farming system ideas could greatly aid in the situation's mitigation.

Kitui County rate is one of 10 biggest counties in Kenya by geographical standards. It has a total land area of 30,429 km<sup>2</sup> and a population density of 37 people per km<sup>2</sup>; taking to account that, national average is 82 people per km<sup>2</sup>. However, with huge agricultural potential, Kitui County poverty levels remains alarming. Poor population in the county account for 48%, which is

considered higher than the national rate which is 36%. The poor in Kitui County stand for 3.2% of the poor in Kenya. The households and individuals considered to live under absolute poverty are those whose monthly adult equivalent total consumption expenditure per person is less than Ksh 3,252 in rural and peri-urban areas and less than Ksh 5,995 in core urban areas (KNBS, 2016). Percentage of people living below the poverty line (US\$ 1.90 a day) is 60.4% while people experiencing food poverty is estimated at 39%, compared to the national average of 32%. The monthly adult equivalent food consumption expenditure per person is less than Ksh 1,954 among food-poor households and individuals in rural and peri-urban areas and less than Ksh 2,551 in core-urban areas. Relatedly, there are high rates of nutritional deficit. Stunting occurs in 38.2% of children below five, while wasting occurs in 4.2% of children below five (KNBS, 2016). The presented information clearly depicts that food security is predominant among the residents of the Kitui County of which Mwingi West Sub-County where the study took place, is not exceptional.

Farmers and other farming stakeholders have developed modern/improved farming practices in an effort to increase food security. In contrast to traditional farming, modern agricultural systems need farmers to play more central roles and to be keen to employ technology and information to regulate most system components. Dutonde (2018), believes that contemporary agriculture tends to regard its success as depending on its availability of resources, technology, management, investments, markets, and favourable government policies, as opposed to the seclusion inherent in traditional arrangements. This information, as provided by Dutonde, (2018) lays the groundwork not only for the Mwingi West Sub-County but also generally for any large productive agriculture in the communities. However, achieving this goal will be very difficult due to the affordability issue.

One of the ways of tackling food insecurity in Kenya and in Kitui County in particular, is the introduction of farming programs one of them being Kenya Cereals Enhancement Programme (KCEP). KCEP currently known as Kenya Cereals Enhancement Programme-Climate Resilience Agricultural Livelihoods (KCEP-CRAL) in the Arid and Semi-Arid Lands (ASALs) of Kenya has an overarching development goal to help smallholders in the (ASALs) regions reduce rural poverty and food insecurity by maximizing their economic potential, while also enhancing their resilience to climate change and ability to manage their natural resources. According to Esilaba et al., (2021), the National Government of Kenya has been working with the County Government of Kitui since August 2016 to improve the county's food security condition through KCEP-CRAL. Under a loan and grant from the Adaptation of Smallholder Agricultural Plan, the Kenyan government, European Union, and IFAD have partnered on this program.

Similarly to the other Counties gaining from the same program, the program's implementers are assisting smallholder farmers in Kitui County to transition from subsistence to commercially-oriented, climate-resilient agricultural practices by enhancing productivity, postproduction management techniques, and market ties for specific value chains; secondly, it is empowering women of County Government and communities to sustainably and consensually manage their land.

Kitui County has been constantly referred as food stressed County as Katuto, Mueke&Kisimbii, (2020) puts it citing (Kenya Demographic Health Survey, 2015). This has consequential posed high rates of chronic malnutrition of 46% against a national average of 26% among children aged. This has been highly attributed to the County's arid climate. Despite all said and done, Kitui County Government (2017), asserts that; the topography of Kitui County is suitable for

irrigation; its irrigation potential is estimated to be 11,095 ha, of which only 1,850 ha have been utilized. Irrigation is practiced along major rivers such as Mui, Thua, Kithyoko, Tana, Athi, Nzeeu, Thunguthu, Katse, Kauwi, and Kalundu. It is coupled with ongoing county projects for water harvesting, including kitchen gardening, on-farm ponds, and cluster irrigation schemes (Kitui County Government, 2017).

According to Gioto and Mativo, (2017) who compiled a report for the Kenya Food Security Steering Group and the County Steering Group in Kitui County in February 2017; Mwingi West Sub-County is the third-most-affected Sub-County in the county. The blame was on high costs, persistent drought, failed crops, and inadequate irrigation in Kyome and Tana, both of which were caused by the river's low water levels. The report also emphasized the percentages of the Kyome/Thaana; 25-30%; Kiomo/Kyethani; 20-30%, Nguutani; 20-30%, and Migwani; 15-20% populations are in need of humanitarian aid. Kenya News Agency, (2021) reported that "scores of pupils at Kalimamundu Primary School in Kyuso Sub-County in Kitui lost consciousness while in class due to food cravings, this led to a public outcry imploring for the donation of ingredient to the school by well-wishers," illustrating the hopelessness of the food situation in the county.

To mitigate such dehumanizing instances as the one cited, and evident that they are castigated by the food insecurity, Kitui County Government has invested a lot in different approaches whereby programmes geared to food security promotion have for the past recent decades taken an upper hand for the same. Though these initiatives have been put in place, the problem is still rampant in Kitui County, and more also on Mwingi West Sub-County residents' neck as evidenced in the increased daily media reports of persons in need of food. KCEP is one of the latest entrants in the said initiatives, and to some extent introducing her operations within Mwingi West in 2019. Her operations are guided by the overarching development goals that are to support farmers in increasing the productivity and profitability of important cereal commodities namely; maize, sorghum, and millet as well as related pulses in order to contribute to national food security and smallholder income production (Esilaba, et al., 2021). It is under the emulated circumstances that this study sought to examine "Improved Farming Mixed Method and Food Security in Kenya: a Case of Kenya Cereals enhanced Programme in Mwingi West Sub-County, Kitui County.

## METHODOLOGY

### Research Design

A research design, also known as research strategies, is outlined by McCombes (2019), as a plan to respond to a query or series of questions. To be more explicit, the research design describes the means through which the researcher will probe the study's foci. Yet according to (Mwanyota, n.d.), a research design is both the study's strategy and its implementation plan. Methods, measurements, and analyses of data are all laid forth in detail. Descriptive research approaches were emphasized in this mixed-methods study. The researcher gathered rich primary data through the use of questionnaires. The researcher found it relatively cheaper for the respondents were interacted with in their natural setting and they were willing to offer first-hand information.

### Sample Size and Sampling Techniques

Those who will take part in the study constitute the sample (McCombes, 2019). According to Tuovila (2019), a statistical technique called "sampling" involves selecting a random subset of a population to analyze. In this study, a representative sample of farmers was selected using a

technique known as snowball sampling, which is a form of non-probability sampling. According to Parker et al., (2019), snowball sampling involves starting with a limited number of initial contacts (or "seeds") that meet the research criteria and are encouraged to become participants. Participants who are willing to take part in the study are then invited to make recommendations for other individuals they know who do meet the study's inclusion and participation criteria and who might also be interested in taking part in the study. After a predetermined sample size or a saturation point is achieved, sampling stops. There were also eight agricultural extension officers and four ward administrators, as well as two respondents from each of the four farming groups in the area. For this purpose, the researcher first sought out extension service officers in each ward of Mwingi West Sub-County; then interviewed these informant persons and afterwards the said officials pointed researcher in the direction of farmers using mixed improved farming techniques, who in turn pointed researcher in the direction of other farmers in their wards using these techniques. The Yamane, (1967) formula was used to determine the sample size.

$$n = \frac{N}{1+N(e)^2}$$

Where; n = required responses/sample population

e<sup>2</sup> = error margin

N = sample size

N= 79 255

e<sup>2</sup> = 0.05

Sample for farmers

$$n = \frac{79\ 255}{1+79\ 255(0.05)^2}$$

$$n = \frac{79\ 255}{1+79\ 255(0.0025)}$$

$$n = \frac{79\ 255}{1+198.1375}$$

$$n = 397.99 \quad n = 398$$

Table 1

*Sample Matrix*

Category	Pseudonyms	Target population	Sample Size	Sampling Technique	Data Collection
Farmers		79 255	398	Snowball	Questionnaires
Farming Grps	rep. KIP 1	8	8	Purposive	Interview
Extension officers	KIP 2	8	8	Purposive	Interview
Ward Adms	KIP 3	4	4	Purposive	Interview
KCEP Managers	KIP 4	4	4	Purposive	Interview
<b>Total</b>		<b>79, 279</b>	<b>422</b>		

### **Data Collection Methods**

Data collection is the process of collecting, measuring, and analyzing reliable data from a number of relevant sources (Simplilearn, 2022). Information is gathered by many means, such as a paper questionnaire or a computer-assisted interviewing system, which are collectively referred to as "data gathering tools" (Islam, 2022). Data from farmers was gathered using both open-ended and closed-ended questionnaires to acquire quantitative data. These tools were preferred to gather information from this category of respondents because of the large sample size involved. KCEP managers, ward administration, extension staff, and farming group members were interviewed using interview guides to collect qualitative data.

### **Data Analysis**

The goal of data analysis is to provide decision-makers with actionable insights by collecting, and analyzing data (Calzon, 2022). According to Kelly, (2022) the goal of data analysis is to assist organizations make better decisions through the process of cleansing, modifying, and processing raw data. The quantitative data from the farmers was cleaned, processed, and analyzed using SPSS version 25. Descriptions, tables, numbers, frequencies, and percentages all made up the visual representations of the data analysis. The qualitative data from the key informant persons was also analyzed using theme content analysis and presented in narrative form.

## **RESULTS**

### **Demographic Characteristics of the Respondents**

The respondents' reports showed that female were the majority accounting for 67.8% while male stood at 32.2%.

In terms of marital status, married was the most common status (81.1%), followed by singleness (13.3%), then widowhood (4.4%), and finally divorce (1.1%).

Concerning the age of the respondents, 51 and above years (36.67%) carried the day, ages 31-40 which was 25.56% followed, on the same order ages 21-30 which accounted for 23.33%, came third, and ages 41-50 representing 14.44% years came last. The implication is that majority of the farmers were either experienced in the exercise or have retired from other kind of jobs. It can also be observed that young generation have not engaged themselves in farming affairs yet the endeavor can be source of employment.

Education of the respondents; Primary 38.9% and Secondary 33.3% respectively. Diploma and degree account for 22.2%. Those who did not have formal education 3.6%. Other forms of education 2.0%. From these findings it can be deduced that majority of the farmers have basic education which can help them to do better farming.

Responding on the years spent on farming; the group under 10 years led 33.3%, followed by those in the brackets of 11 to 20 years 27.8%, then those in confines of 21 to 30 years scored 16.7%, and finally those who have been farming for 31 and up years 22.2%. It may be inferred that majority of respondents in this study engaged in farming while KCEP was in power, this suggests that KCEP's inception may have sped up farming's adoption in the realm of science.

### Improved Mixed Farming Method through KCEP and Food Security

The study sought to examine improved mixed farming methods through KCEP and food security. The aspects covered under this section included the following: benefits accrued by enrolling to KCEP, improved mixed farming methods practiced by farmers, challenges affecting improved mixed method farming and recommending improving mixed-method farming through KCEP

### Benefits Accrued by Enrolling to KCEP

The study sought to examine benefits accrued by enrolling to KCEP. Table 2 shows the distribution of the respondents by Benefits of KCEP to those enrolled

Table 2  
*Benefits of KCEP to those enrolled*

	Frequency	Valid Percent	Cumulative Percent
Improved yields	180	50.0	50.0
Quality produce	130	36.1	86.1
Value per cost of Production	50	13.9	100.0
<b>Total</b>	<b>360</b>	<b>100.0</b>	

Those who enrolled with KCEP gave benefits acquired as a result of the same as presented in table 1. 50.0% indicated that they have improved yields, 36.1% said that the quality of produce has been registered, and the remaining 13.9% answered that they have been able to realize value per the cost of production.

The key informant 1 gave the following narrations:

The KCEP has helped the farmers to adopt good agricultural practices, conservations agriculture principles to enhance production in three pillars including crop rotation, crop cover and minimal tillage. Enterprise selections, biotic factors, climate conditions, said adaptations, availability to access inputs, and farmers' preference for food crops (KII 1, 2023).

In addition, KII 2 had the following to say,

Effectiveness of KCEP in the region, KCEP has been playing a very big role in addressing food security. This is because the program has been supporting farmers by giving farm inputs for instance; seeds and fertilizers. In other instances; the program pays some percentage to help the farmers to acquire farm input for example for the farmers to acquires farm inputs, they pay 10% and KCEP pay 90% of the total of input cost.

The program has been so effective in promoting food security by ensuring that farmers plant early, provide them with metrological guide, and advise them on the varieties of crops to plant based on the weather forecast (KII 2, 2023).

### Improved Mixed Farming Methods Practiced

The study sought to examine improved mixed farming methods practiced by farmers. Table 3 shows the distribution of the respondents by mixed farming methods practiced

Table 3  
*Mixed Farming Methods Practiced*

	Frequency	Valid Percent	Cumulative Percent
Agribusiness	80	22.2	22.2
Organic Farming	250	69.4	91.7
Intensive farming	30	8.3	100.0
<b>Total</b>	<b>360</b>	<b>100.0</b>	

Source; (Field survey, 2022).

Table 3 displays the responses about the most common improved farming methods practiced in Mwingi West Sub-County. Organic farming has the majority of the respondents with 69.4%, agribusiness follows with 22.2%, and intensive farming has the least respondents with 8.3%. These responses are affirming that the majority of the respondents are carrying out organic with aim of maintaining soil texture coupled with minimizing chemical application in crop production.

### Some of the Challenges Affecting Improved Mixed Method Farming

The study sought to examine some of the challenges affecting improved mixed method farming. Table 4 shows the distribution of the respondents by challenges affecting improved mixed method farming

Table 4  
*Challenges affecting Improved Mixed methods Farming*

	Frequency	Valid Percent	Cumulative Percent
Unpredictable weather patterns	100	27.8	27.8
labour intensity in farming operations	60	16.7	44.4
High cost of farm inputs	80	22.2	66.7
Inadequate markets for farm produce	20	5.6	72.2
Pests and Diseases	40	11.1	83.3
Inadequate lands for farming	60	16.7	100.0
<b>Total</b>	<b>360</b>	<b>100.0</b>	

Table 4 displays the respondents’ reactions to the question. Unpredictable weather patterns led with 27.8%, high cost of farm inputs seconded with 22.2%, labor intensity in farming operations and inadequate lands for farming followed suit tying with 16.7%, pests and diseases registered 11.1%, and inadequate markets for farm produce was the least with 5.6%.

### Recommending Improving Mixed-Method Farming through KCEP

The study sought to examine recommending improving mixed-method farming through KCEP. Table 5 shows the distribution of the respondents by recommending improving mixed-method farming through KCEP.

Table 5

*The recommendations for improving mixed-method farming through KCEP*

	Frequency	Valid Percent	Cumulative Percent
Increase the ratio of extension officers to the number of farmers.	72	20.0	20.0
Adopt drought-resistant crops and animals.	90	25.0	45.0
Farmers be facilitated with machinery for irrigation.	60	16.7	61.7
Use of certified seeds and fertilizers.	78	21.7	83.3
Observe weather patterns for timely planting.	60	16.7	100.0
<b>Total</b>	<b>360</b>	<b>100.0</b>	

Table 5 shows some of the proposed remedies. Encouraging farmers to adopt drought-resistant crops and animals took 25%, increasing the ratio of extension officers to the number of farmers accounted for 20%, use of certified seeds and fertilizers had 21.7%, facilitating farmers with machinery for irrigation and observing weather patterns for timely planting fell to 16.7%.

The key informants’ findings were as revealed;

The farmers have to do this: - seed selection, plant population – spacing gapping limning, timely weeding, soil fertility management, soil testing for fertilizers applications, pests and disease control, harvesting – maturing indices that is to avoid loss in farmers. If rain fails and do this in irrigation; there could be food security (KII 6, 2023).

In the same line, KII 12 had the following to say

There have been several trainings like field days, chairs days where we go to the market, receive farmer’s challenges, and advise them on an appropriate measures, training on field security advice and use of certified seeds adoption of Conservation Agriculture to conserve moisture, training farmers on soil conservation measures like laying Terraces and retention ditches (KII 12, 2023).

In coherent with the same idea, KII 5 observed the following

There have been trainings and through County Government support, we have been visiting farmers to give them some guidelines about climate change and seed varieties which they are supposed to grow in line with weather forecast (KII 5, 2023).

Another KII had the following to add:

Through advices from agricultural extension officers, farmers can improve on production and also following the methods: - through good agricultural practices, Weather forecast, Weed control, Pest and disease control, scouting to identify the pests, use of certified seeds, sub-soilers, rippers, chisel, early planting and Water harvesting(KII 10, 2023).

## DISCUSSION

The study examined improved mixed farming methods and their impact on food security through the Kilifi County Empowerment Program (KCEP). The findings shed light on the benefits of modern farming practices, including organic farming and agribusiness, and their role in addressing food security challenges in Mwingi West Sub-County, Kenya. The study's findings align with arguments made by Sourajit et al., (2021), who emphasize the importance of sustainable farming practices, such as organic farming. Organic farming prioritizes environmental harmony and soil and human health by relying on biodiversity and natural processes instead of chemical inputs. This perspective resonates with the majority of respondents in Mwingi West Sub-County, who are engaged in organic farming, reflecting a growing awareness of sustainable agricultural practices.

Furthermore, the study identifies agribusiness as a burgeoning trend, which is in line with the idea that agribusiness can alleviate unemployment and boost incomes, as suggested in the literature. Agribusiness offers opportunities for farmers to engage in commercial and market-oriented agricultural activities, potentially increasing their financial stability.

The study also observes that intensive farming practices are less common due to high economic input demands and the need for specialized knowledge and skills. This aligns with Abdul et al.'s (2017) perspective on modern farming, which involves practices like disease-resistant hybrids, reduced pesticide use, and biological pest control. These methods often require substantial investments and specialized knowledge, potentially explaining the lower adoption of intensive farming methods among the study's respondents. Based on the overlying challenges, the study underscores the role of technology and information in enhancing mixed farming methods, consistent with Dutonde's (2018) assertion. Contemporary farmers view themselves as central players in managing various aspects of the agricultural system. This highlights the interconnectedness of factors such as access to resources, technology, governance, investment, markets, and government policies in determining the success of modern agriculture.

Additionally, the study contributes to the understanding of mixed farming, as described by Ramnath et al., (2020). Mixed farming involves practicing different farming types on the same land, enabling year-round land and labor utilization, income diversification, and expanded cropping opportunities. This approach is crucial for food security and economic stability in rural

areas. The study underscores the significance of farming programs like KCEP in addressing food security challenges in contemporary Kenya. In a world where food security is integral to holistic development, such programs play a pivotal role in ensuring sustainable development, aligning with the Sustainable Development Goals (SDGs).

The study's findings align with existing literature on modern farming practices, sustainable agriculture, and the role of agricultural programs in addressing food security challenges. These insights contribute to a comprehensive understanding of the agricultural landscape and highlight the importance of sustainable and modern farming practices in ensuring food security and sustainable development. As global challenges like food security continue to evolve, adopting these practices becomes increasingly crucial for the well-being of communities and the planet.

### CONCLUSION

The findings indicated that KCEP through her affairs in Mwingi West Sub-County has positively impacted farming activities in the area especially in terms of improved yields and promoting organic farming as well as the least modern practiced farming systems, for instance, agribusiness and intensive farming. According to the findings, organic farming not only improves food security but also ensures the protection of the environment. This study prepares ground for the realization of SDG 2, 3, 12, and to some extent 15 which is connected with taking care of environment.

Recommendation towards addressing the challenges associated with KCEP's bid to ensure food security in Mwingi West and beyond in line of intensive farming, agribusiness, and organic farming, farmers are urged to adopt drought and pest/disease-resistant crops and animals. It is also important to increase the ratio of extension officers to farmers through government and other interested agencies. Use of certified seeds and fertilizers so as to increase yields and quality and also reduce the effects of pests and diseases. Government to consider subsidizing farm inputs and facilitating the availability of water for irrigation. The weather forecast systems should also be improved and proper communication be done to the farmers for the proper and timely planting.

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## FOREIGN DEVELOPMENT ASSISTANCE IN KENYA'S MANUFACTURING SECTOR: IN THE INTEREST OF DEVELOPMENT PARTNERS OR FOR MUTUAL BENEFIT?

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**Abstract:** *This article delves into the role of foreign development assistance in Kenya's manufacturing sector, analyzing motivations, outcomes, and mutual gains. Against the backdrop of historical financing limitations in African countries' manufacturing sector, development aid has emerged as a pivotal instrument, addressing the limited domestic resources for economic growth. Foreign development assistance on Kenya's manufacturing growth has had mixed outcomes. On one hand, it has enabled the construction of critical infrastructure and technology provision while on the other hand, it has fostered unintended repercussions. The promotion of competitive imports through foreign aid agreements and conditionality has triggered intense competition for local products, prompting the closure of local manufacturers unable to withstand foreign competition. Despite Kenya's strides, the manufacturing sector's potential remains untapped, as the nation relies predominantly on exporting primary resources and importing essential goods. The findings of this article reveal that foreign aid to Kenya's manufacturing sector is frequently aligned with development partners' national interests, facilitating technology, knowledge, and resource transfer. This article underscores the need for strategic global alliances that align with the interests of Kenyan manufacturers, thereby fostering sustainable economic advancement.*

**Keywords:** *Foreign development assistance, Development Partners, Kenya Manufacturing Sector, Development Partners interests, foreign assistance, Kenya Manufacturing assistance, Development Partners mutual benefits*

### INTRODUCTION

African nations have continued to confront fiscal limitations impeding the advancement of their manufacturing sectors. The deficiency in domestic savings has prompted a reliance on foreign capital, crucial for fostering manufacturing growth in these economies. Development aid has emerged as a pivotal instrument driving growth across Africa, countering the shortfall of domestic resources to sustain economic activities (Ndikumana, 2022). At the core of foreign aid's role in the industrial sector lies the pivotal issue of capital, an essential ingredient for establishing

a robust industrial foundation within a nation. The existing body of literature concerning industrial growth underscores the intrinsic nexus between capital accumulation and the process of industrialization (Kemp, 2014; Oqubay, 2015; Page, 2014).

The industrialization journey in Africa has been significantly aided by bilateral state interventions and various multilateral institutions. Development aid allocation has facilitated the creation of critical infrastructure like roads, ports, and power plants, fostering a stable and efficient environment conducive to industrial expansion. Furthermore, funding educational initiatives has fostered the cultivation of a skilled workforce vital for the industrialization process. Technical assistance initiatives, supported by development aid, have empowered developing nations to design and implement industrial policies that foster sustainable industrial growth (Kemp, 2014).

In the 21st century, Kenya's trajectory has been marked by substantial economic growth, attaining an average annual GDP growth rate of 4.81 percent from 2004 to 2022 (World Economics, 2023). Despite its lack of significant natural resources, Kenya ranks as the seventh-largest economy in Africa and serves as a regional leader in East Africa. Agriculture, encompassing critical sectors like coffee and tea cultivation, remains a linchpin, contributing around 22 percent to the nation's economy. Closely trailing is the manufacturing sector, accounting for approximately 11 percent of the GDP (Trading Economics, 2022). However, the growth of Kenya's manufacturing sphere has lagged behind other sectors like agriculture and services (Ngui et al., 2016). The sector contends with challenges in attaining favorable factor productivity growth rates due to an array of hindrances obstructing industrial development. These obstacles encompass limited access to financing, inadequate infrastructure, and inconsistent policies and bureaucratic processes, collectively leading to a demanding business environment (Ngui et al., 2016; Were, 2016).

Exploring the role of foreign development assistance in Kenya's manufacturing sector can provide valuable insights into the dynamics of international partnerships and their impact on the manufacturing sector. This article looks into the role and impact of foreign development assistance in Kenya's manufacturing sector. The article employed a mixed research design that integrated both qualitative and quantitative data sources. This approach encompassed qualitative information garnered from interviews involving four pivotal stakeholder groups in Kenya—government officials, manufacturers, donor agencies, and private sector representatives. To support this primary qualitative data, secondary data was also drawn from national and international databases. An assessment of the role of foreign aid in Kenya's manufacturing history is covered below, before looking at the controversies and issues arising relating to the place of foreign aid in enabling manufacturing in the country.

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## FOREIGN DEVELOPMENT ASSISTANCE IN KENYA'S MANUFACTURING SECTOR

This section looks into the foreign development assistance in Kenya's manufacturing: in the interest of development partners or for mutual benefit? By addressing the major question of concern, the paper covers the following sections foreign aid to Kenya's manufacturing sector: a historical overview, aid for trade in Kenya's manufacturing in the 21<sup>st</sup> century, and in the interest of donors or for mutual benefit?

### Foreign Aid to Kenya's Manufacturing Sector: a Historical Overview

Like many African countries, early 20<sup>th</sup> Century manufacturing in colonial Kenya was dominated by the non-African populations of European settlers, Asian and foreign multinationals (Gachino, 2009). In the East African region, Kenya was the dominant producer of manufactured goods with the European settlers setting up industries through the support of development aid from the British Empire. The native Kenyans served as laborers in industrial factories and as a market for the goods produced. When Kenya gained independence in 1963, it had an economy that was created to meet the standards and needs of the British settlers and foreign markets. As fairly sophisticated as this system was, the newly established Kenyan government was not able to sustain the manufacturing growth in the immediate years of independence (Kamau & McCormick, 2011). The manufacturing sector in this era was fostered by policies to attract foreign capital and investment while targeting the needs of foreign markets. The post-independent government was therefore keen on creating a domestic manufacturing base that catered to the needs of Kenyan citizens while supporting their engagement in manufacturing enterprises.

It was against this backdrop that Kenya began to receive development aid to improve its economic condition post-independence. The British government was the first aid donor to provide development financing to Kenya after independence. Other donor countries, included the United States, France, Japan, and Germany. Foreign aid in the early years to the manufacturing sector was directed at building infrastructure, supporting the construction of factories, and offering technical assistance as the government put in place policies and regulations to support manufacturing. Kenyan scholars in this period noted that the industrial policies adopted after independence bred monopolies as foreign aid was used as a means for foreign dominant powers to continue their neocolonial interests in Kenya. The largest beneficiaries of foreign aid to Kenya were the multinational foreign investment firms who got access to local and regional markets as a result of bilateral agreements between Kenya and their mother countries (Coughlin & Ikiara, 1988). Existing local enterprises were often destroyed by the competition of these foreign institutions.

From 1964 to 1973 the manufacturing sector's share of GDP increased only marginally contributing to 10 percent of GDP (Chege et al., 2014). However, compared to other countries in the region, Kenya continued to be a dominant industrial player. The manufacturing output of Kenya in this initial decade grew faster than other industrial sectors in sub-Saharan Africa during the 1960s- 1970s. This period led to the establishment of industrial sectors such as paper, food

processing, textile & garment, and leather tanning & footwear (Kinuthia, 2013). Kenya implemented an Import Substitution Policy (ISI) after gaining independence in 1963. Driven by the desire to be self-sufficient from imports of manufactured goods, the post-independence government was keen to establish a local manufacturing base. The policy aimed to promote economic development by reducing the country's dependence on imported goods and encouraging the growth of local industries. The ISI policy supported the increase of tariffs on imports to make them costlier than locally produced goods, implementing import licensing, restricting foreign currency acquisition for imports, and offering subsidies and incentives such as tax holidays and low-interest loans (Ngui et al., 2016).

The implementation of the import substitution policy had both positive and negative effects on Kenya's industrial sector. On the positive side, it led to the growth of local industries and increased employment opportunities. Industries established from the 1960s to 1990s include Rivatex, Ken Knit, Kenya Canners, Del Monte, Kakuzi, East African Pharmaceuticals, and East African Portland Cement. However, the ISI policy equally had negative effects, including the creation of inefficiencies in domestic industries, higher prices for consumers due to the protection of local industries, and limited access to foreign goods and technology. The model proved to be unsustainable, solely focusing on the domestic market, and caused major problems with the balance of payments as the government ended up relying heavily on imported materials for industrial production (Were, 2016). The problem of limited technical skills in the Kenyan population and the collapse of the EAC in 1977 also greatly contributed to the failure of this system (Ngui et al., 2016). Despite the challenges of import substitution, the Kenyan government continued to hold on to this system implementing limited reforms. The manufacturing sector in Kenya appeared competitive initially, but a closer examination exposed flaws in an unsustainable system. Weak institutional structures and state-led initiatives hindered efficiency and private investment. The focus on ISI limited global competitiveness and economies of scale, while protectionist policies stifled innovation. Additionally, largely owned multinational industries lacked linkages to the broader economy, limiting overall manufacturing growth in small and medium enterprises. (Chege et al., 2014).

In the 1980s, Kenya was encouraged by the Bretton Wood institutions to adopt the Structural Adjustment Programs (SAPs) as part of the conditionalities to receive development aid as it worked on re-stabilizing the economy after the 1970s oil price shocks (Nzau, 2010). The market-oriented policies, called for a reduction of government spending, increasing revenue collection, tightening monetary policy, privatizing some state corporations, and the adoption of an open economy reducing barriers to international trade. These policies sought to remove the 'Anti Export Bias' that was encouraged in the ISI phase leading to the removal of the restrictive import licenses and tariffs (Schmidt, 2020). The Kenyan economy became liberalized and was gradually opened to external markets. These policy recommendations formed the basis of the economic reforms that Kenya implemented from the 1980s to the 2000s.

Although the programs aimed to foster economic growth and development, they resulted in significant social and economic repercussions. The policies caused a decrease in government expenditure on vital social services like healthcare and education, adversely affecting the most marginalized segments of the population (Kalu, 2018). The impact of the SAP conditionalities on

manufacturing in Kenya was mixed. On the one hand, SAPs led to the closure of many manufacturing enterprises and the opening up of the economy to foreign competition. This resulted in a significant decline in the output and employment in the manufacturing sector. A renowned Kenyan economic development expert who worked in the sector during this period noted that the opening up of the economy resulted in the shutdown of domestic manufacturing companies as inexpensive imports flooded the market. Numerous local companies faced difficulties in competing with more affordable imports, leading to decreased market share and profitability. The few export-driven industries experienced disruptions as changing international trade dynamics and consumer preferences resulted in reduced orders and the closure of businesses that couldn't adjust.

On the other hand, some industries, such as those in the textile sector, were able to restructure and become more competitive as a result of the SAPs. The removal of import controls and the depreciation of the Kenyan shilling made it cheaper to import raw materials, leading to an increase in textile product exports (Asongu & Odhiambo, 2019). Garrison Ikiara, a Kenyan economist and researcher, emphasizes the significance of Structural Adjustment Programs (SAPs) in Kenya's economic recovery as a result of the impact of the 1970s oil crisis and mismanagement of funds by previous political regimes. Ikiara credits the governance and institutional reform conditions imposed by Western donors for effectively addressing unsustainable government spending and corruption, leading to a more conducive business environment.

This article notes that the impact of SAPs on manufacturing in Kenya was largely negative in the short term, with many firms closing down and significant job losses. Foreign developmental aid taken up from the 1980s to the post-Cold War era had a small impact on the manufacturing sector with the share of GDP coming from manufacturing contributing to an average of 13% between 1990 and 1995 (Chege et al., 2014). However, in the long run, the Kenyan manufacturing sector has been able to restructure and become more competitive, leading to increased exports and growth in the sector (Gachino, 2014).

### **Aid for Trade in Kenya's Manufacturing in the 21<sup>st</sup> Century**

In the 21<sup>st</sup> century, foreign aid has continued to be a dominant feature in supporting the manufacturing sector. The donor community in Kenya has in recent decades begun to adopt the global development trend of supporting countries through the international initiative commonly known as 'Aid for Trade'. It is a type of development aid that aims to build the economic capacity of countries by improving their trade-related infrastructure, policies, and regulations (Kalu, 2018). For Kenya, this renewed focus on supporting enterprise has resulted in more foreign aid financing being directed to the manufacturing sector. With the liberalization of the Kenya economy, the government has largely taken a step back from directly participating in manufacturing activities holding on to a few government-run manufacturing firms that were established in the ISI era. These government-owned manufacturing firms include Chemelil Sugar and Rivatex Limited. These government-owned manufacturing firms, although few have received grants and concessional loans through bilateral and multilateral donor support. In 2016, Rivatex textile manufacturing firm received a Sh. 3 billion concessional loan from the Indian

government to support the upgrading of machinery and operations (Lubanga, 2020). The private sector consisting of local and foreign manufacturing businesses has equally received financial support from a variety of donors in the country. As a whole, the largest sum of foreign aid financing in Kenya has not gone to supporting manufacturing firms directly but has been directed to supporting the enablers of manufacturing which include improving transportation networks, building new power plants, and upgrading water and sanitation systems. There is a greater focus on foreign donors collaborating with the government and the private sector to facilitate the establishment of a stronger industrial base.

The emergence of foreign aid from newly industrialized states to Kenya's manufacturing sector has caused a notable transformation in the landscape of aid and development. Countries like China, India, Israel, Brazil, and Turkey have become prominent donors, engaging in South-South collaborations to strengthen diplomatic ties. Unlike traditional donor nations, these rising powers prioritize supporting development projects in the productive sector. China, in particular, takes the lead by offering concessional loans, grants, and technical assistance. This increase in aid from emerging powers has led to a rise in foreign investment enterprises establishing themselves in Kenya's manufacturing sector. As pointed out by Hyseon Na, this has resulted in the diversification of manufactured goods, reducing reliance on exports of non-processed agro-products like tea and coffee. Instead, investments in sectors such as textiles, leather, and motor vehicle assembly have emerged, causing a significant shift in the country's manufacturing landscape (Na, 2016). While these developments bring potential benefits in terms of industrial diversification and growth, concerns have been raised by domestic manufacturing firms. Unfair competition arises as foreign manufacturing firms, benefitting from aid and other incentives, enter the Kenyan market and directly compete with local firms. The monopolistic tendencies exhibited by some foreign firms are concerning, as they displace local production firms and gain control in certain sectors.

Despite receiving foreign aid aimed at supporting Kenya's manufacturing sector, this article noted that the governance and institutional frameworks within the country have been major constraints, leading to poor utilization of foreign financing. A majority of the respondents to the interviews noted that high levels of corruption have resulted in the misappropriation of foreign capital, while fiscal mismanagement and over-borrowing have led to a debt crisis, burdening the manufacturing sector with a high tax regime (Kodongo, 2022). The debt crisis and the government's revenue generation necessities have driven the implementation of a demanding tax system in Kenya, imposing significant pressure on the private sector, including manufacturing companies. This tax environment has diminished the profit margins of local manufacturers, hampering their ability to invest in the sector. As a consequence, domestic manufacturing firms are facing difficulties in staying competitive in the Kenyan market, resulting in business closures and a decline in the overall size of the manufacturing sector. These challenges have negatively impacted the potential benefits of foreign aid on Kenya's industrial development.

### **In the Interest of Donors or for Mutual Benefit?**

Although the Kenyan government and a few businesses have benefited from foreign aid to the manufacturing sector, this article notes that the distribution of aid to the sector is largely based

on the interest of donors while passively taking into consideration the manufacturing agenda of the country. Indeed structures exist for donor agencies to consult with the Kenyan government to harmonize goals and objectives, however, the decisions eventually taken by donor agencies will be determined by the needs of their main constituents who are their citizens.

The decision by donors to focus on one area of interest in the manufacturing sector compared to another is dependent on what will lead to the greatest return for the donor country. For example, the Japanese Development Agency (JICA) has supported the construction and establishment of Special Economic Zones (SEZ) and Export Processing Zones (EPZs)(JICA, 2022). These industrial hubs have encouraged foreign investors including Japanese investors to establish manufacturing firms at a low cost enabling them to export their goods with minimal to no tariff charges. In the same light, foreign aid to manufacturing cannot be directed to sectors that may have direct competition with donor countries' businesses. For example, the US development agency cannot fund sectors like steel manufacturing because there is a risk that these foreign firms may end up affecting American manufacturers negatively. While seemingly acknowledging the recipient country's needs, this article's findings demonstrate that aid initiatives are strategically designed to align with sectors that simultaneously yield advantages for the contributing partners. This strategic alignment often facilitates the transfer of knowledge, technology, and resources, affording development partners increased market access and potential economic advantages. Consequently, while responding to the recipient's requirements, the overriding objective remains to fulfill the priorities and interests of the donor nation.

Foreign aid in Kenya's manufacturing has been linked to the promotion of inequality where a few businesses continue to benefit from the donor aid. A 2011 Kenyan study by Gerald Holtham et al. shows that aid funds have to a great extent been linked to inequality in the recipient country. The study notes that the structure of the aid system generally favors those within a society that already have a mix of opportunities that enable them to benefit from the aid(Holtham & Hazelwood, 2010). A majority of the manufacturers interviewed for this article noted that the acquisition of some donor-related economic opportunities requires one to have already established existing entrepreneurial skills that they can prove for the acquisition of donor support. This eventually leads to only a few individuals benefiting from the aid. The influence of foreign development assistance has yielded a multifaceted outcome for the progression and transformation of Kenya's manufacturing domain. On one hand, it has served as a pivotal enabler by furnishing essential infrastructure and technology – pivotal components in nurturing a robust manufacturing foundation. On the other hand, the effects of aid have also given rise to unintended ramifications. The active promotion of competitively priced imported goods from the markets of development partners has cultivated substantial competition for locally manufactured products while promoting inequality among businesses. Unfortunately, this dynamic has culminated in the closure of indigenous manufacturing enterprises that were unable to withstand the formidable challenge posed by these dynamics.

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## CONCLUSION

In conclusion, the motivations of development partners often intertwine with their national objectives, thus shaping the contours of aid projects in the manufacturing sector in Kenya. Although foreign assistance has positively contributed to Kenya's manufacturing realm through the infusion of technology and infrastructure, the sector has concurrently grappled with challenges due to import-oriented competition supported by foreign aid conditionality. As Kenya navigates this landscape, it becomes imperative to engage in strategic alliances that align the interests of all stakeholders, thereby fostering a harmonized and sustainable trajectory for the manufacturing sector and the broader national development agenda.

This article recommends that Kenyan policymakers should diversify their sources of funding beyond relying solely on foreign development assistance to reduce their aid dependency. They should actively promote domestic savings and attract foreign direct investment as viable alternatives. Moreover, there is an urgent need to empower local entrepreneurs and enhance their competitiveness against foreign counterparts within the manufacturing sector. This involves providing tailored support for the adoption of technology, fostering innovation, and promoting skill development. A well-crafted policy framework is essential to create a balanced playing field that safeguards local industries while simultaneously promoting an open trade system for the importation of foreign goods. Ultimately, this approach can pave the way for sustainable economic progress.

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