

**EFFECTS OF IMPLEMENTATION OF ARID AND SEMI ARID LANDS (ASAL) POLICY ON DROUGHT RESILIENCE IN WAJIR COUNTY, KENYA**

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**Accepted: January 11, 2024**

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**ABSTRACT**

*The study sought to investigate the effectiveness of the implementation of the ASAL policy on drought resilience in Wajir County. The study adopted a descriptive research design. It sampled 398 respondents drawn from a population of 127932 households in Wajir County. In addition, 20 key informants within the Wajir population were also purposively sampled. Data was collected using a questionnaire. Descriptive and inferential statistics were calculated using SPSS Ver.28. The researcher's exclusive focus was on academics; as such, they must act with the utmost professionalism and be mindful of the ethical concerns stated above. The insights of the Wajir people on the impact of drought management reflected the progress made in Drought Response Plans (DRP) and the effect on their livelihood. Hence, by carrying out this study, it was possible to determine the policy capacity of county Governments to successfully implement their various DRPs meant to cultivate drought resilience practices among communities in the county. The study established a coefficient of determination (*R squared*) of 0.626, implying that the combination of financial allocation, stakeholder engagement, and mitigation measures implementation accounted for 62.6% of the variation in drought resilience in Wajir County, Kenya. The adjusted *R-squared* of 0.614 further indicated that, in the exclusion of the constant variable, financial allocation, stakeholder engagement and mitigation measures implementation jointly explained 61.4% of the variation in drought resilience. The study also found a significant and positive relationship between financial allocation and drought resilience ( $\beta = 0.221, p = 0.005 < 0.05$ ), the results showed that there existed a positive but statistically insignificant relationship between stakeholder engagement and drought resilience ( $\beta = 0.103, p = 0.244 > 0.05$ ). Finally, the study found a significant and strong positive relationship between mitigation measures implementation and drought resilience ( $\beta = 0.483, p = 0.000 < 0.05$ ). On the basis of the findings, the study concluded that the perceived inadequacy of funds directly affects the county's ability to enact critical drought resilience activities such as the development of water infrastructure, livestock programs, and community-based initiatives. The study also concluded that stakeholder engagement does exist in Wajir County, but is significantly skewed towards governmental bodies. The study thus recommended that the county government of Wajir should seek additional funding avenues, which should include grants, public-private partnerships, or aid from international organizations.*

**Key Words:** Financial Allocation, Stakeholder Engagement, Drought Mitigation, Drought Resilience

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**CITATION:** Saadiya, I., H., & Muna, W. (2024). Effects of implementation of Arid and Semi-Arid Lands (ASAL) policy on drought resilience in Wajir County, Kenya. *Reviewed Journal of Social Science & Humanities*, 5 (1), 23 – 49.

## INTRODUCTION

Drought severity is rising exponentially and diverging dramatically from historical patterns. World leaders are concerned that the changing drought patterns are lowering communities coping capacities. The survival of vulnerable households is at stake and largely dependent on drought resilience programs. Grillakis (2009) explain that the severity of droughts significantly inhibits households from developing resilience practices in marginalized communities, such as arid and semi-arid lands (ASALs) in Southern and South-Eastern Europe, Brazil, the Sahel, the Greater Horn of Africa regions (Mugalavai, Obiri, & Lolemtum, 2017). Due to climate change, we can expect the current dire situation to get worse. Serious societal and economic consequences results from drought in these countries: a scarcity of water, pasture, energy sources, food shortage; starvation risk; the loss of livestock as well as cash crops or land ruination translate into destitution for many residents. Additionally mass migration drives toward fragile ecosystems put more strain on stressed resources while conflict arises from the reconfiguration of limited assets by displaced populations seeking shelters or survival strategies. The existing situation will most likely become worse with global warming. The study will analyze the impact of policy implementation on drought resilience programmes in Kenya's ASAL Counties.

In the 2010/2011 period, a devastating drought impacted over 13 million individuals across Eastern Africa. The crisis worsened ongoing food shortages, pushing them to famine conditions in multiple regions. Border areas between Ethiopia, Kenya, and Somalia faced extreme difficulties, including a loss of nearly 80% of their livestock and large-scale migrations away from drought-stricken regions (FAO, 2011; Headey, Taffesse, & You, 2012). In Kenya alone, the drought from 2008 to 2011 reduced the country's GDP by an average of 2.8%, with damages and losses calculated at \$12.1 billion. Moreover, the areas with the lowest Human Development Index suffered the greatest per capita damages (Government of the Republic of Kenya, 2012). Similarly, a 2011 report from the Global Facility for Disaster Reduction and Recovery revealed that 4.6 million Ethiopians required urgent food aid (World Bank, 2011). The hardest-hit regions were the pastoral lands in southern and southeastern Ethiopia. Furthermore, the drought led to a sharp decrease in cereal supplies and a spike in food prices, exacerbating poverty-related food insecurity. In Somalia, it's estimated that the drought led to as many as 260,000 deaths, largely due to a lack of policies aimed at improving households' ability to cope with drought and ensure food availability.

The programs born from drought resilience policies can significantly mitigate food insecurities if they are programmed to strengthen people's capacity to withstand periods of Drought in advance, thereby enhancing their resilience capacities (Odhiambo, 2013). However, they ought to be at the forefront of policy discussions for these programs to be successful. Policy implementation is primarily pegged on several factors, including resources, institutions, and regulations. This paper will assess how these factors interplay in Kenya's enactment and realization of the ASAL policy on drought resilience.

Since 2003, the ASAL policy documents a revitalized governmental commitment to improving and developing the ASAL territories. It makes a strong argument that favors including ASALs in the Kenyan economy, which is fundamental to understanding its positive impact on overall development efforts. The government understands that overlooking ASALs in national planning and development could lead to stunted economic growth and ultimately jeopardize progress as a nation. Trickle-down methods from regions with better investment situations do not appear to work well, leading to restricted possibilities of major development in those areas. Spanning northern Kenya and other arid regions that cover 90% of the country and all of the ASALs, the geographic scope of the ASAL Policy determines this scope.

The scenario analysis for the policy aims to emphasize the positives for the nation if the inequities are eliminated and the ASALs are integrated into the mainstream of the national economy as well as to show the amount of inequality between the ASALs and the rest of the country. It draws attention to the region's strategic importance, trade, livestock, tourism, natural resources, pastoralists' knowledge of coping with climate change, and possibilities for urban growth. The ASAL Policy is supported by a careful balancing act

between the need for rapid growth and the preservation and maintenance of the distinctive livelihoods system that makes the greatest use of the region's changing ecological conditions.

The foundation of the ASAL policy is made up of four key pillars: promoting national integration, cohesion, and equality; building a strong infrastructure, human capital base for development governance mechanisms that are reliable including security measures like rule of law in order to develop; creating new strategies to ensure effective governance as well as public service delivery methods; all while supporting climate resilience practices that provide stable livelihood opportunities for people living within these regions. The Policy acknowledges that there has been insufficient planning or coordination in Northern Kenya and other arid regions for development efforts. The government set up four structures to tackle this issue; these are: a transformation secretariat; a subcommittee within the cabinet; a stakeholder forum; and an inter-ministerial committee. Notably, funding is essential for implementing and maintaining the policy's planned interventions. The policy includes several financial interventions that have been described in terms of set objectives.

Stakeholders must be prepared to meet the challenges associated with adoption to reap the benefits of the ASAL Policy. Although the adoption of the ASAL Policy is significant and ground-breaking, its implementation will be the true test. The communities in Northern Kenya and other arid regions will only be able to experience the benefits that the Policy envisages via implementation.

### **Statement of the Problem**

Sub-Saharan African countries have been separated by the extremely harsh climate of sparsely populated regions, which has resulted in the formation of an effective barrier to social mobility and geographical impediment factors. Drought resiliency focuses on preparing communities for future droughts by providing them with the resources they need to endure, withstand, and recover from these events. These strategies can help communities become more resilient by bolstering water conservation, agricultural or industrial processing, accessing new water sources, and managing drought on a watershed level. The NEPAD is working on a thorough energy plan that covers all of Africa. Contributions from the AfDB and the EU-Africa Infrastructure Trust Fund, among other organizations, are supporting this initiative. These projects are designed for long-term impact, include elements that cross national borders, and thus have a wider regional effect. By bringing together both public and private funding, these projects aim to reduce poverty and boost economic growth. This can be accomplished through infrastructure investments, which will contribute to growth in these regions and increase investment, both of which are critical for maintaining growth and combating poverty.

For example, in Kenya, which is made up of ASALs, countries have been developing and implementing drought resilience programs for years to improve livelihood adaptation capability during droughts. Despite various agencies' and organizations' resilience measures, ASAL countries, as illustrated in Kenya's counties, particularly Wajir, continue to bear the brunt of rising drought frequency and severity, exacerbating socioeconomic disparities and insecurity. The EDE Strategy of 2012 and ASAL Policy aim to improve drought outcomes by increasing resilience, covering Northern Kenya and other arid lands (the Republic of Kenya, 2015). However, achieving long-term resilience outcomes at the government and family levels is a challenge for these programs (Carabine, Jouanjean & Tsui, 2008).

In addition, despite widespread political involvement and ongoing efforts to implement these policies, the intended socioeconomic benefits have not been felt by the affected populations due to several reasons, including inadequate organizational and institutional structures, a lack of qualified leaders and experts, the adoption of irrelevant programs and policies, insufficient funding for the process, a lack of understanding of the risks, the ineffectiveness of political goodwill, and more. However, there is little comprehensive research on the effect of policy implementation capacity on the effectiveness of drought resilience programs specifically run by county governments in ASAL counties. Due to a lack of studies on the subject, this study

aimed at comprehending the effects of social problems such as the ongoing drought problems in Wajir County.

### **Objectives of the Study**

The objectives of this study were;

- To determine the effectiveness of financial allocation on the implementation of ASAL policy on drought resilience in Wajir County.
- To assess the effectiveness of stakeholder engagement on drought resilience in Wajir County.
- To investigate the effectiveness of mitigation measures on drought resilience in Wajir County

The study was guided by the following research questions;

- What is the effectiveness of the financial allocation on the implementation of the ASAL policy on drought resilience in Wajir County?
- To what extent does stakeholder engagement affect drought resilience in Wajir County?
- What is the effectiveness of mitigation measures on drought resilience in Wajir County effective?

## **LITERATURE REVIEW**

### **Empirical Review of Literature**

#### **Implementation of Policy Frameworks of Drought Resilience Programs**

Execution refers to the deliberate and systematic efforts aimed at incorporating evidence-based strategies into practical contexts (Ghate, 2016). Drought effects resilience can be boosted through implementing specific steps in this research, which turn evidence into policies and procedures. Putting a plan into effect involves execution, monitoring progress, making adjustments, and evaluating impact. The implementing partners must draft a plan and related process cycles to monitor progress, make adjustments and assess the impact. The level of implementation of the drought mitigation policies determines the realization of long-term policy goals such as enhanced local resilience through innovation and the adoption of regional strategies.

Because public policies determine how well communities are able to recover from natural disasters, the concept of drought resilience needs to be clearly and forcefully expressed as a significant policy aim inside policy papers. According to Shiferaw et al. (2014), the implementation of appropriate policies motivates governments to move away from reactive interventions and position resilience as the key approach to managing the risk of drought. Policies, both hard and soft, have been enacted to guide drought resilience under the drought management framework at the international, regional, national, and even community levels (Venton, 2018). Nonetheless, in several nations, such policies have not led to significant improvement in resilience, and in other cases, minimal progress has been made to achieve their objectives. This study will also assess the level of implementation of the related drought resilience policies and suggest policy gaps that may hinder the realization of goals. Policies are multidimensional and thus require related approaches for full implementation. The actors and institutions must collectively utilize the available resource to realize the policy goal (Briassoulis, 2019). Knowledge-oriented institutions are likely to develop sound implementation plans for related initiatives.

According to Duguma, Bruntrup and Tsegai (2017), a number of post-drought assessments the efforts and interventions of various governments have, for the most part, concentrated on providing assistance and rehabilitation following drought-related incidents. The "hydro-illogical" cycle is a common name for this time-honored method that has been used to combat droughts all across the world. This approach focuses on implementing quick, emergency actions when a drought occurs, only to discard these measures once the drought conditions improve. This short-term mindset neglects the importance of long-term planning and preparation for future droughts. According Bruntrup (2019), this reactive strategy does not emphasize the

crucial need for continuous efforts to build resilience against forthcoming droughts. Instead, it prioritizes immediate solutions, which are usually abandoned as soon as the current crisis is over. This leaves communities vulnerable to the next drought, as they have not developed sustainable methods to cope with such recurring environmental challenges. However, such reactive responses, which are centered on crisis management, are often ineffective since they do not lead to the achievement of the most sustainable and cost-efficient solutions in the long term. The study will investigate the policy implementer's approach to achieving the goals of drought resilience in Kenya.

Recent approaches have shifted from emergency responses and emphasized the prevention of drought tragedies through drought risk management interventions that focus on building resilience against associated damages (Nhamo, Mabhaudhi, & Modi, 2019). According to Crossman (2018), improving the ability of people, ecosystems, and economies to recover from the consequences of drought in a timely and efficient manner is what is meant by "resilience to drought." Programmes designed to mitigate the effects of drought should have as their primary objective the strengthening of communities' resiliency to the effects of drought, both on an individual and a national scale. Therefore, implementing a drought resilience program is multidimensional, requiring effective coordination and communication to realize outcomes. Drought resilience programs play a crucial role in the broader scheme of sustainable development. According to Zhang, Chen, Sheng, Ip, Yang, Chen, and Niyogi (2019), these programs help in meeting multiple Sustainable Development Goals (SDGs). This means that they not only focus on managing water scarcity but also contribute to a variety of other long-term goals such as poverty reduction, gender equality, and responsible consumption and production. Because these programs align with several SDGs, their successful implementation becomes a matter of national interest. By investing in drought resilience programs, countries can make significant strides in building a more sustainable future that is capable of withstanding environmental challenges, thereby serving the interests of the nation as a whole.

In the United States, some states, such as Texas, began to mandate local governments to address hazard mitigation within their local comprehensive plans, which served as policy documents following the 2011-2012 drought, which was the worst since the 1930s (Fu, 2013). However, the level to which drought resilience programs have been incorporated into these plans requires improvement due to escalating losses witnessed in recurrent droughts. After the devastating impacts of the 2003 drought in Europe, several policy mechanisms and extensive non-legally binding technical guidance documents to deal with droughts at the European, national, and regional levels were developed in the European Union (E.U.) (Hervás-Gámez & Delgado-Ramos, 2019). On this basis, E.U. countries have increasingly developed drought management plans that have supported the implementation of efficient drought resilience interventions.

### **Implementation of ASAL Policy**

A multi-sectoral, multi-stakeholder institutional framework for ASAL development is established by the National Policy on ASALs. Since 2012, this implementation structure has been in use. The Inter-Ministerial Coordination Committee is one of the key reform mechanisms that has been put in place. For the previous two years, the ASAL Stakeholder's Forum (ASF) has been held yearly. The Ministry of Devolution and Planning's ASAL Secretariat is in charge of coordinating multi-sectoral initiatives and supervising the implementation of ASAL policy. The 10-year EDE's special mandate for NDMA is to make it easier to undertake drought- and climate-resilient development (Republic of Kenya, 2013b).

### **Effectiveness of Drought Resilience Policies in ASAL Regions**

The aims of various national and county policies on disaster management, such as the ASAL Policy and the Ending Drought Emergencies (EDE) Strategy of 2012, whose implementation is a shared responsibility of the national and county governments, is to improve the resilience of vulnerable groups (the Republic of Kenya, 2015). These policies enjoy massive political and stakeholder support in the region. In collaboration with development partners, the county governments have committed resources to realize the aims of these

policies to enable Kenya to realize her Vision 2030 and the Big Four Agenda objectives, in particular food and nutrition security (Githae, Ogada, & Mwangandi, 2020).

The drought resilience initiatives have called for strong implementing capacities at all levels, emphasizing local solutions for local levels. According to Mera (2018), human and financial resources are also needed for the efficient implementation of the policies. It is widely acknowledged that the ASAL regions were disregarded for many years by the previous governments. According to Duguma, Bruntrup, and Tsegai (2017), these areas continue to rely on governments at the national level for assistance with planning, direction, and technological support when it comes to carrying out their normal development operations. This, in turn, hinders their ability to define, prioritise, and design their programmes in accordance with their needs and provides insufficient room for the engagement of the most vulnerable population at the grassroots level.

According to Pulzl and Treib (2007), the amount of success that can be had in achieving the goals of public policy is directly proportional to the amount of money and expertise that is made available. According to Wilhite, Sivakumar, and Pulwarty (2014), Lack of financial support severely hinders progress towards proactive drought-risk management and the broader disaster risk management process. As a result, in places where governments have shrugged off their obligation to provide sufficient resources, there is no sign of a planned continuation of activity during post-emergency periods that can improve the capacity to coexist with drought. In some cases, the lack of adequate governance structures creates uncertainty and incoherence in decision-making and planning processes (Bressers, Bressers, & Larrue, 2016).

The Kenyan government, over the years, has lagged in building adequate capacity that can implement various policies that strive to promote drought resilience, especially at the county level (Brüntrup, 2019). The reactive, crisis management approach to drought management results in a response that is late, leading to an over-reliance on emergency food aid, deepened dependency, and disruption of socio-economic activities; these factors stifle the growth and success of drought resilience interventions.

### **Financial Resources and Drought Resilience**

The study by World Food Programme (2018) examined the role of food aid as a safety net in Kenya. The study found that having reliable and adequate funding, along with timely financial support, were key factors in successfully implementing food aid and strategies for managing drought. Likewise, a 2014 World Bank study showed that financial resources are crucial for offering alternative cash-for-assets programs to communities living in the arid and semi-arid lands (ASALs) of Kenya. The money enabled the employment of field extension offices and other drought management experts. In addition, the finances are used to acquire modern technology that is pivotal in enhancing household and county resilience to Drought. Therefore, the financial resources are used to develop and implement policies and monitor and track progress and impact. The responsible authorities' practical implementation of the drought management strategy is pegged on the financial flows that facilitate the related operations and programs. The source of finances, the amounts allocated, the time of allocations, and the frequency of budgets are crucial financial resources that oversee related programs' policy development, implementation, and performance (Sandstrom, & Juhola, 2017).

Human capital growth has a substantial influence on the performance of drought management strategies, as per Githae, Ogada, and Mwangandi (2020) study. Adequate financial resources are mandatory for ensuring continuous training of policy implementers so that they can attain the goals envisioned by the given policy. This is based on research data collected during the study. Apart from formal training, the study found significant gaps in human resource availability through other professional initiatives. The study acknowledged that the authority in charge of drought mitigation, the NDMA, operated on a lean budget and could not afford to continuously undertake the necessary training, which slowed down the implementation of its mission across a larger geographical area. The performance of drought management programs is linked to the stable flow of financial resources for efficient operations (National Drought Mitigation Center, 2013). Kerzner (2017) opines that budgetary allocations must demonstrate the management's commitment to the strategic plan. Therefore,

the aspect of Planning is sound as it helps ensure that relevant activities are carried out efficiently while reinforcing the implementation of the strategy.

A study by Clarke and Hill (2013) on the impact of finances on the realization of drought mitigation policies in the SSA noted that the implementing institutions that pooled resources at the regional level effectively hasten the drought relief strategies. The study also indicated that the institutions engaged in cost-reduction strategies to prevent wastage and prioritize solutions. The study, however, noted that given the unpredictable droughts, such financial systems might not effectively reduce future drought vulnerabilities of the affected communities given their uniqueness. Experiences from Ethiopia indicated that the employment generation system could effectively provide aid and enhance local resilience against upcoming droughts. Instead of distributing food, this programme compensated people who helped with drought relief efforts (such as constructing terraces and repairing dams) (IFRC, 2003). Tools of drought relief funding, such as low-interest loans and transportation subsidies for cattle and livestock feed, are used in drought management procedures like impact assessments, responses, and reconstruction. Wilhite (2000) lists food, water transportation, and well digging as further contributing elements. The availability of funds is crucial to the success of these plans. There have been studies that have pointed to methods in which drought response measures can be made more effective. Based on their findings, Cheah & Ho (2020) conclude that project finance considerably and positively influences the outcome of innovation collaborations facilitated by industrial policy. As such, allocation is deemed essential for many activities, including implementing firms' research and collaboration capacity.

### **Stakeholder Engagement and Drought Resilience**

The study by Mkonda (2022) on the efficacy of stakeholders' meetings in responding to climate change's effects in central Tanzania, found that few individuals were actively involved in conducting a variety of studies. This was especially true in more disadvantaged communities. Furthermore, the most important stakeholders were excluded from the implementation and tracking processes, affecting the availability of relevant data. As a result, the absence of stakeholders impacted the entire adaptation process, resulting in numerous controversies. Not having important stakeholders obstructed the creation of decision-making entities, negatively impacting the policy formulation process. Stakeholder involvement can no longer be overlooked as we adapt to climate change; they must play a key role in shaping policy for effective response.

A study on the participation of stakeholders in disaster resilience building in an era of changing climate conditions was carried out in Australia by Aldunce et al. (2016). The researchers found that stakeholders are actively participating in the process of building resilience. Their contribution was vital to the development of active, rather than merely passive, resistance. The stakeholders enabled the implementation of essential aspects required for developing strength in climate change challenges and uncertainties. The study also found critical factors that needed urgent attention from stakeholders, especially the local government and the community. Stakeholders were also pivotal in addressing the challenges of communication and power structures associated with transformability. Harris et al. (2017) note that stakeholders' input in developing urban resilience strategic planning processes was crucial in creating specific pathways for change. Therefore, the implementation of drought resilience programs ought to re-imagine resilience in negotiation and not focus entirely on the outcome or goal. Policy implementation was more successful when stakeholders were involved in increasing the attention to social learning and more inclusive planning processes.

Feinstein (2018), in his study, realizes that many of the resilience paradigms are inherently conservative and have stalled progress on the types of social transformations envisioned, thereby failing to minimize the social inequalities. An inclusive planning and decision-making process of drought resilience programs, conducted in a participatory way, ought to address the root causes of poverty to be effective in advancing transformative change. In addition, a study by Toyoda (2021) on the achievements and perspectives of community resilience approaches to societal systems realized that stakeholders were responsible for

enhancing the competence of community resilience, including capacity building and decision-making. The study further mentioned that community resilience was learned when stakeholders harmonized the gears of resilience within the household and community setups. Stakeholders, therefore, enhanced the likelihood of policy development and realization of outcomes. However, the study noted that many implementing institutions failed to wholly involve community participation paradigms in the related activities. AU-NEPAD plans to support no less than 25 million farm families in using climate-smart agriculture (CSA) by the year 2025. The literature stresses the importance of stakeholders in creating adaptation and fostering resilience. Driven by stakeholder participation aimed at cutting greenhouse gas emissions and adjusting to environmental challenges, farmers from less developed regions have adopted climate-smart agricultural practices guaranteeing food security.

According to Wilhite (2011), there is significant value for policymakers in incorporating the perspectives, knowledge, and beliefs of stakeholders when crafting policies aimed at developing drought-resilient communities. By actively engaging these stakeholders in the policy-making process, a more comprehensive and consensus-based set of best practices can be formulated. These best practices are more likely to be effective in mitigating the impacts of drought because they take into account the lived experiences and insights of the people most affected. In the context of India, there is a noticeable gap in research focusing on public perception of drought impacts and individual or community responses to them. A study by Chapagain et al. (2019) suggests that perception-based studies, which document the viewpoints, experiences, and general understanding of local populations, can be instrumental in filling this gap. These studies can provide valuable insights that can aid policymakers in crafting more effective and context-specific drought resilience programs. By taking into consideration the collective wisdom and needs of the local populace, such programs can better align with the real-world challenges faced by communities during times of drought.

The capacity of communities as a whole to weather climate change can be improved through catastrophe risk reduction efforts (Wilhite, 2002). In order to develop adaptation strategies for making livelihoods more drought-resistant, it is helpful to have a thorough understanding of how individuals feel the drought has affected their assets (Jetter & Kok, 2014).

### **Mitigation Measures and Drought Resilience in Kenya**

Gerber and Mirzabaev (2017) indicated significant progress in drought mitigation and preparedness research over the last decade. The study identifies major gaps in research, policy, and practice in risk management compared to traditional approaches to crisis management. To ensure efficient drought resilience programs, the role of government agencies in both research and policy monitoring is vital. In their 2020 research, Cheah and Ho found that the capability of public research institute top management teams in portfolio management partially mediates the conversion of project funding into innovation collaboration outcomes. Combining resources to fund development projects affects how open innovation cooperation are created among public research institutions and commercial businesses in industry policies.

Kenya's approach to managing drought is heavily influenced by its commitment to the international United Nations Convention to Combat Desertification (UNCCD), which the country ratified in 1997. One of the central commitments made by nations that are part of this Convention is the development of a national action plan. This plan serves as a comprehensive blueprint for implementing the Convention's objectives within the country's unique context. The national action plan acts as a guiding framework that outlines the strategies, actions, and responsibilities aimed at combating desertification and, by extension, managing drought more effectively. By domesticating the international guidelines set forth by the UNCCD, Kenya is able to tailor its efforts to meet both global standards and local needs. This allows the country to align its policy response to drought with internationally recognized best practices, while also considering the specific environmental, social, and economic challenges faced at the national level. Therefore, the national action plan becomes an integral tool in fulfilling Kenya's commitment to the Convention, as well as in addressing the pressing issue of



drought within its borders. One of the problems facing the drylands is soil deterioration brought on by overgrazing, according to Kenya's national action program. The uncontrolled transition from pastoralism to arable agriculture and land subdivision has led to widespread environmental damage and blocked cattle and wildlife's natural migration pathways (GoK, 2002).

Gerber and Mirzabaev (2017)'s research on the benefits of action and costs of inaction in drought mitigation and preparedness shows improvements made over the last decade to better understand droughts and their effects. Established in March 2015 by the Sendai Framework for Disaster Risk Reduction 2034–78 allows us to develop a comprehensive approach to deal with the scourge of droughts catastrophes. The intended use period for this framework is 2015 to 2030. A new framework takes over for the previous one called Hyogo framework in an effort to boost country readiness regarding natural disasters through covering recovery, rehabilitation and reconstruction phases. UN outlines the focus on adaptation to reduce harm and protect resources by implementing plans for better preparedness and response (2015). The framework identifies four priority areas for action: comprehension of disaster risk, improved disaster risk governance, investment in disaster risk reduction for resilience, and improved disaster preparedness. All of these are included. Having a complete grasp on the existing situation is vital to a successful application of the proposed framework.

A comprehensive evaluation of each factor - including disaster risks, susceptibility levels, capacities for response or recovery; relevant exposures; hazard features which define potential impacts from different types of natural events (earthquakes/volcanoes) should be taken into account during this assessment in order to achieve desired objectives related to these issues on both local/national levels as well as globally if necessary or applicable depending upon circumstances encountered during any given situation faced by decision makers working within dedicated fields related specifically towards understanding how they could potentially affect future outcomes through adoption strategies centred around resilience thinking models based off scientific research findings correlating variables associated with successful management interventions whose impacts extend beyond direct interactions between communities living within areas vulnerable subjected due climate change effects resulting from increased anthropogenic activities (including deforestation leading edge) that alter land usage patterns leading towards more erratic weather patterns over time driving greater instances precipitation events increase sea level rise due ocean.

In 1992, the first-ever national drought policy underwent implementation with a contingency action plan launched through the Department of Relief and managed by their national disaster program. is a key document that will be crucial in shaping the policy direction and strategy toward this topic. In 2007, the 8 framework was developed to protect social, economic, and environmental aspects of drought-affected areas. The policy aimed to increase impoverished people's capacity for adaptation, thereby reducing their vulnerability to climatic shocks (GoK, 2007a).

Although the demands of the ASAL communities were well met by this strategy, its effectiveness was limited by poor implementation. Even before it was put into action, it underwent another review in 2015. A national disaster management policy was created at the same time to improve the governments, communities, and other stakeholders' readiness to lessen the consequences of environmental hazards (GoK, 2007a). Its objectives included creating institutions, networks, and partnerships for disaster management, including disaster risk reduction in the development process, and enhancing the resilience of vulnerable populations through the use of early warning information.

In the aftermath of the severe drought that struck between 1979 and 1980, the government took action by creating Sessional Paper No. 4 of 1981, which focused on National Food Policy. This important policy document outlined several commitments the government planned to undertake to tackle food security. One key promise made in the document was to aim for a broad level of self-sufficiency in primary food items. The goal was to ensure that the nation could feed itself without having to rely on food imports, which would drain

valuable foreign exchange reserves. Additionally, the government committed to establishing a secure food supply for each geographical region of the country. To help manage and coordinate these ambitious aims, the Food and Nutrition Planning Unit was established. Originally situated within the Ministry of Planning and National Development, this unit was tasked with overseeing all aspects of food security. The unit serves as a focal point for coordinating efforts among different stakeholders and sectors involved in food production, distribution, and consumption.

By establishing the Food and Nutrition Planning Unit and creating a comprehensive policy document, the government took a multipronged approach to tackle the food security challenges exacerbated by drought. These efforts were aimed at not just short-term relief but also at laying the foundation for a more resilient and self-sufficient future in terms of food security for the entire nation. In response, the government built a number of different organisations within its administration to address this issue. Some of these structures include drought contingency planning and monitoring procedures. The government has often stated that prolonged periods of drought reduce the likelihood of food sufficiency, particularly in pastoral environments.

The government started initiatives to help people manage the consequences of the drought. In 2015, a common programme framework for ending drought emergencies called EDE CPF was set up to deal with drought emergencies in ASAL counties. By promoting collaboration across different sectors including teams at different levels of a hierarchy or regionally varied institutions it leads to better functioning operations. EDE is built on the six pillars of institutional strengthening, knowledge management, climate-resilient livelihoods, human capital and climate-resilient infrastructure (GoK, 2015). The initial four pillars are used to fasten investment into drought-susceptible regions aiming for DRM improvement, contrastingly the second two pillars build up institutional and finance frameworks to handle drought dangers better. The idea behind EDE is that by investing in building infrastructures for extra initiatives and supporting organizations involved with DRM, lasting consequences will ensue beyond the extent of project interventions (Carabine et al., 2015).

The National Drought Management Authority (NDMA) is the key organization responsible for implementing the EDE CPF, a specialized national program designed to tackle drought-related issues. This program doesn't operate in isolation; rather, it is a component of a larger, regional strategy aimed at improving overall drought management. The NDMA's role is to ensure that the guidelines and objectives of the EDE CPF are effectively carried out within the country. By taking on this role, the NDMA serves as a crucial link between national and regional efforts to combat the underlying causes and impacts of drought. This dual focus ensures that the national program is not just a standalone initiative but is integrated with broader strategies that encompass regional considerations. The NDMA's involvement in enforcing the EDE CPF underscores its commitment to both national and regional collaboration for better drought preparedness and response. Through such coordinated action, the NDMA aims to create a more resilient framework that can effectively manage and mitigate the recurrent issue of drought.

## **Theoretical Review**

### **Resource-Based Theory**

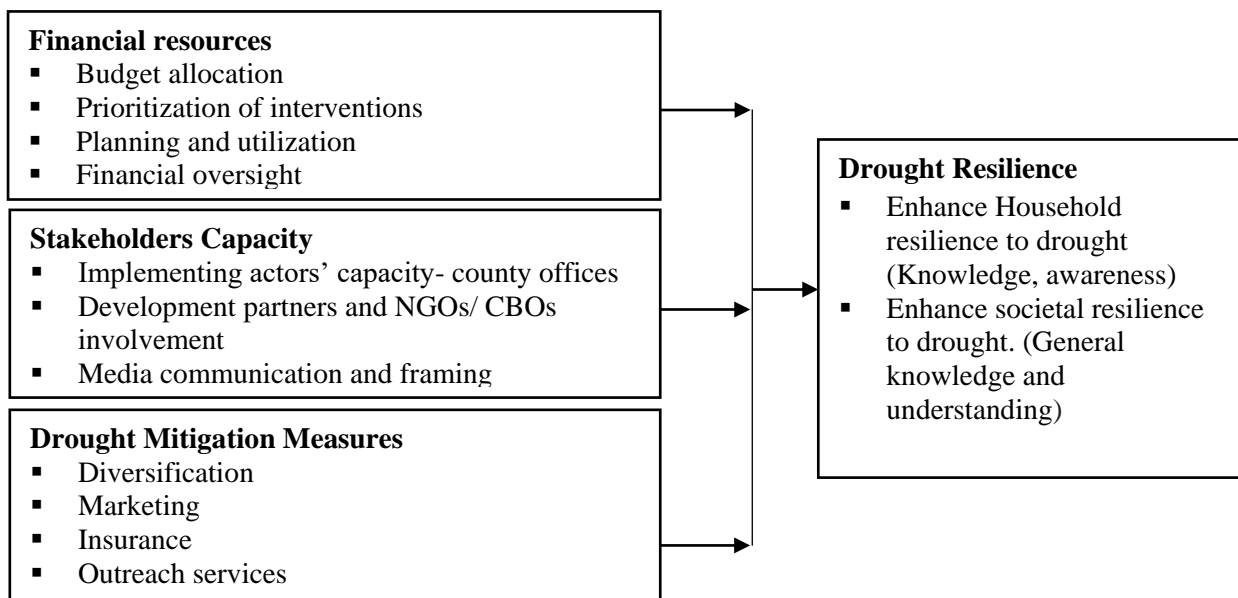
The resource-based view (RBV) theory put forth by Penrose (2009) served as the primary theoretical foundation for this research. According to Hoskisson (2000), it is widely regarded as one of the most effective theories for assisting with the comprehension of business strategy in developing nations. To put it another way, the resource-based view investigates how businesses may develop, gain access to, exert control over, and capitalise on firm-specific resources in order to maintain a sustainable advantage in the market (Barney, 1991). The more valuable, unique, and challenging to replace or replicate such resources are, the higher the likelihood that they will support a durable competitive advantage. According to the resource-based perspective, having access to support is invaluable since it is so difficult to replicate, so limited in supply, and so impossible to replace (Kozlenkova et al. 2014). According to Ambrosini and Bowman (2009), the resource-based view proposes that organisations should look internally in order to uncover the sources of competitive

advantage that may be gained from their resources. The resource-based theory provides an explanation for the factors that determine the execution of competitive strategies in organisations.

### Human Capital Theory

Using The Human Capital Theory by Becker (1994), this study articulates the importance of sensible human resource management in achieving successful organizational performance through using appropriate methods that positively influence employee output. Human capital is the stock of knowledge and personality qualities that enables employees to create economic or social value, as Crook et al. (2011) explains. Human capital theory posits that human capital consists of skills and personal traits related to job performance. Human capital management is primarily centered on employee productivity and not the number of employees. The Human Capital Theory gets into specifics by examining skills and expertise for task completion in a more particular sense. According to Cohen and Soto (2007), the skill set acts as a basis for salary and promotion dynamics within organizations.

### Conceptual Framework



**Independent Variable**

**Dependent Variable**

**Figure 1: Conceptual Framework**

Source: Researcher, 2023

### METHODOLOGY

This research used descriptive research design. Wajir County, which is found in northern Kenya and shares borders with Somalia and Ethiopia to the east and north, was the location where the research was carried out. The study targeted the 127-932 household setups of Wajir County, given that the effectiveness of a drought resilience program was best measured at this level. In addition, the investigations targeted the county officers and directors in charge of drought management interventions (7), county disaster management committees (5), and program officers of leading NGOs undertaking drought resilience programs (8).

The research applied a mixed methods sampling approach to combine quantitative and qualitative research elements in answering the effectiveness of drought resilience programs. The research used stratified random sampling and purposive sampling methods in selecting study participants. The investigations applied the Slovene formula of sampling to determine the reasonable size of the sample size. As a result, 398 households out of the 127932 households were sampled in the sub-counties of Wajir East and Wajir North. The counties

had recorded significantly higher incidences of climate-related hazards and, therefore, were crucial in assessing the effectiveness of drought management interventions. The key informants were purposively selected based on one's position, influence, and authority in the community.

Data from household heads was collected using a semi-structured questionnaire, with both closed and open-ended questions. In addition, an interview schedule was used to interview key informant interviewees, including officers and directors in charge of drought management interventions, county disaster management committees, and program officers of leading NGOs undertaking drought resilience programs.

After the data collection process was completed, the next step involved reviewing the data in Excel to ensure that it was both complete and accurate. This preliminary check aimed to identify any gaps or errors that might affect the quality of the analysis. Once the data was verified in Excel, it was then transferred to the Statistical Package for the Social Sciences (SPSS), specifically version 28.

Multiple regression analysis was used to examine the effects of an independent variable (implementation of ASAL policy) on the dependent variable (Drought resilience). The multiple regression equation is in the following form:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon;$$

Where  $Y_i$  = Drought Resilience (Dependent Variable) and  $X_i$  (independent variable) for all  $i$  running from 1 to 5 such that  $X_1$  = financial resources;  $X_2$  = stakeholder's capacity;  $X_3$  = mitigation measures.

The coefficients of multiple determination are  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ . The error term is  $\epsilon$ .

Qualitative data emerging from open-ended questions of the questionnaire, and the interviews were analyzed using both thematic and content analysis.

## RESULTS AND ANALYSIS

### Implementation of ASAL Policy and Drought Resilience

This section presented findings from the analysis. This section presents the descriptive statistics, and inferential statistics results.

#### Financial Allocation

The first objective of the study was to determine the effectiveness of financial allocation on the implementation of ASAL policy on drought resilience in Wajir County. The study sought to establish the effectiveness of financial allocations on policy implementation. The respondents were asked to indicate if the county government of Wajir had been successful in implementing the ASAL policy on drought resilience or not.

The results showed that opinions were divided on whether the county government of Wajir had been successful in implementing the ASAL (Arid and Semi-Arid Lands) policy on drought resilience. A majority (56%) of the respondents believed that the government had not been successful, while 44% believed it had been successful. This division implies that there are elements of the policy that are not working but also significant room for improvement. The fact that 44% believe it had been successful also indicates that some efforts are paying off, and it would be useful to understand what those are. These findings are consistent with the assertions by Briassoulis, (2019) that, policies are multidimensional and thus require related approaches for full implementation, as such the actors and institutions must collectively utilize the available resource to realize the policy goal.

The respondents were also asked to indicate the strategies and actions that had been used to push for the implementation of the ASAL policy in Wajir County. The responses were as shown in Table 1.

**Table 1: Strategies and Actions Used**

Strategy	Frequency	Percentage
Political and technical empowerment	214	85.6
Transfer of adequate financial and human resources	225	90.0
Effective engagement with county leaders and stakeholders	238	95.2
Networking among pastoralists and with other groups	245	98.0

The findings show that networking among pastoralists and other groups stands out as the most commonly cited approach used in the county, with 98% of respondents mentioning this strategy. This suggests that there's a strong community effort and sense of shared purpose in implementing the ASAL policy. Effective engagement with county leaders and stakeholders is close behind, recognized by 95.2% of respondents. This indicates that there's good communication between those in charge and those affected by the policy. Financial and human resources are also reported to be adequate, with 90% of people acknowledging this aspect. The least mentioned but still significant strategy is political and technical empowerment, noted by 85.6% of respondents. This involves educating local communities or giving them the resources they need to make the policy work. Even though these strategies are reportedly in use and well-recognized, the first part of the survey showed that people are almost evenly split on whether the policy is actually working: 56% said it is not, and 44% said it is.

The findings imply that while the strategies are being implemented, they might not be effective enough. There is good engagement with community leaders, but maybe the conversations aren't leading to action. Alternatively, financial resources might be transferred, but perhaps they're not reaching the right projects or people. Another point to consider is that people's idea of 'success' might differ. Some might expect immediate results, while others may be looking at long-term resilience. These varying expectations are likely to influence how people answer the survey. Despite a high rate of strategy implementation, public opinion remains divided on the policy's effectiveness. This suggests that the next step should involve digging deeper into each strategy to see how well it's really working and if it's meeting the community's needs and expectations.

The study's results indicated a range of opinions regarding the effectiveness of financial resource allocation in implementing policy. The majority of respondents, making up 56%, agreed that the allocation of financial resources has been effective for policy implementation. In contrast, 32% of the participants disagreed, stating that they did not find the financial allocation to be effective in carrying out policy goals. Additionally, a smaller portion of the respondents, constituting 6%, had more extreme views, either strongly agreeing or strongly disagreeing with the statement. The survey also sought to uncover the specific strategies and actions that the county government of Wajir County has employed to implement the ASAL policy. The aim was to understand not just public opinion, but also to identify the concrete measures being taken at the governmental level to facilitate the policy's implementation. By examining both public perception and governmental action, the study aimed to provide a comprehensive overview of the effectiveness and challenges associated with implementing the ASAL policy in Wajir County.

The results showed that 50% of the respondents identified political and technical empowerment as one of the key strategies used, while 25% mentioned capacity building and training of county staff. Other strategies mentioned by the respondents included community mobilization and engagement (13%) and collaboration with development partners (12%). The following table shows the varying proportions of the strategies and actions used by the county government to push for the implementation of the ASAL policy.

The respondents were also asked to rate the adequacy of financial allocation for the implementation of the ASAL policy in Wajir County. The results showed that 38% of the respondents believed that the financial allocation was adequate, 52% believed that it was inadequate, and 10% were not sure. Furthermore, the interviews revealed that there is a general perception among the key stakeholders, including government officials, community leaders, and residents, that the financial allocation for implementing the ASAL policy in

Wajir County is insufficient. Many interviewees highlighted that the allocated funds are not enough to adequately address the complex and multifaceted challenges of drought resilience in the county. This limitation affects the implementation of various planned activities, such as water infrastructure development, livestock support programs, and community-based drought resilience initiatives.

The results match a 2015 UN framework. This framework identifies four priority areas for action, which are as follows: The four key areas to focus on for managing disaster risks: understanding them, improving governance, reducing risks through investments, and ensuring better responses. All of these areas are interconnected. In order to successfully execute the framework, one must first have a comprehensive awareness of the existing situation. This can be accomplished by doing an analysis of disaster risks, susceptibility, capacity, exposure, hazard features, and sequential repercussions at relevant social and geographic scales.

In an interview with County officers and directors, County disaster management committees and Program officers of leading NGOs, the KII were asked if they were familiar with the ASAL Policy and their understanding of its objectives. Most of them indicated that;

*I am well aware of the ASAL Policy and the main aim is to secure a better quality of life for people in arid and semi-arid lands. It's about making sure we have reliable sources of water and food, especially during droughts. We're also looking at sustainable ways to use the land for both farming and herding. But to be honest, executing these plans has its challenges.*

In addition, the KII explained that;

*As a member of the County's disaster management committee, I can say that the ASAL Policy is a step in the right direction. The objectives are clear: increase water security, improve food availability, and ensure sustainable land management. However, there's a gap between the policy on paper and its actual implementation. Resources and funds don't always reach where they are most needed, and this undermines our efforts.*

The program officers indicated that;

*We work as program officers for leading NGOs in the region, and yes, we are familiar with the ASAL Policy. We believe its objectives are well thought out, focusing on crucial issues like food and water security, and better land use. The real challenge we face is coordination. Different groups and levels of government need to work together more effectively for the policy to achieve its goals. Right now, that's an area we could improve on.*

### **Stakeholder Engagement**

The second objective of the study was to assess the effectiveness of stakeholder engagement on drought resilience in Wajir County. The research sought to establish the level to which stakeholder engagement has on drought resilience. The respondents were asked to give their opinions on whether the County government of Wajir County was involving stakeholders in implementing ASAL policy on drought resilience and programs or not.

The findings showed that to a greater extent, stakeholder engagement has an impact on drought resilience with results revealing that the majority of the respondents (66%) felt that the County government involved stakeholders in implementing ASAL policy on drought resilience and programs. This showed that most of them were aware of the involvement of different stakeholders in drought resilience programs implemented by the county government. The results align with Mkonda's 2022 study, which also found minimal stakeholder involvement in research activities, especially in underprivileged regions. His research focused on the effectiveness of stakeholder meetings for adapting to climate change effects in central Tanzania. Furthermore, the most important stakeholders were excluded from the implementation and tracking processes, affecting the

availability of relevant data. The study concluded that the lack of critical stakeholders hampered the formation of decision-making bodies and the overall policy formulation process.

Respondents were required to identify key stakeholders involved in the implementation of the ASAL policy in Wajir County. The results are presented in Table 2.

**Table 2: Key Stakeholders**

<b>Key Stakeholders</b>	<b>Frequency</b>	<b>Percentage</b>
CBO	20	8.0
NGO	40	16.0
National Government	70	28.0
County Government	120	48.0
<b>Total</b>	<b>250</b>	<b>100</b>

The findings indicated that most survey participants viewed the County Government as the primary stakeholder, accounting for 48% of the responses. The National Government was seen as the least active, making up 28% of the mentions. Meanwhile, Non-Governmental Organizations (NGOs) constituted 16% and Community-Based Organizations (CBOs) represented 8% as important stakeholders in implementing drought resilience programs. The findings illustrate that some actors have more influence than others when it comes to the implementation of ASAL policy. When they were asked to mention what could be the reason for this happening, they indicated various reasons. These include limited coordination among stakeholders, lack of effective communication, conflicting interests among stakeholders, and inadequate representation of marginalized groups. According to Wilhite (2011), policymakers could benefit from enhanced policy formulation by incorporating the perceptions, knowledge, and beliefs of stakeholders regarding drought-relevant impacts and engaging stakeholders in the process of establishing livelihoods that are resilient to drought.

The respondents were further asked to indicate if the principal and minor stakeholders implementing the drought resilience programs in the county communicate and coordinate to ensure prudent Planning and utilization of related funds or not.

The findings depicted that slightly more than half (54.30%) of the respondents believed that the principal and minor stakeholders responsible for managing drought-resilience programs in Wajir County were communicating and working together effectively. This communication helps in wise planning and use of money allocated for these programs. However, a significant portion, 46% of the respondents believed that there was a lack of effective communication and coordination among these groups. This could mean that the funds might not be used as efficiently as they could be. While it appears that more people think there is good communication and coordination, it's still pretty close to an even split. This suggests that there is room for improvement in how these programs are managed.

The respondents were also asked to mention some of the mechanisms that have been adopted by the county government to engage stakeholders in the implementation of the ASAL policy. These included increasing community participation and engagement, improving communication and information sharing, and addressing cultural and social norms. From the interviews, some of the mechanisms were resource management, livelihood diversification, and access to basic services. The research also assessed whether the media had created enough awareness of the ASAL policy on drought resilience in the county among the respondents. From the results, the majority of the respondents 163 (65%) felt that the media was not making enough efforts to ensure that the residents were aware of the ASAL policy on drought resilience in the county while according to others the media had created enough awareness of the ASAL policy on drought resilience in the county.

Additionally, the interviews found that there was a consensus among the participants that the media had not created enough awareness of the ASAL policy on drought resilience in the county. Many of the respondents pointed out that the media, both print and electronic, had not given enough coverage to the policy, and that as a result, many people in the county were not aware of its existence. Some of the respondents suggested that the county government should do more to promote the policy through the media, by sponsoring adverts and public awareness campaigns. Others suggested that the media should take a more proactive role in promoting the policy, by carrying out investigative reports and highlighting the importance of the policy to the people. The results of the study affirm the conclusion by Wilhite (2002) that engaging local communities in strategies to reduce disaster risk can effectively improve their overall ability to deal with extreme weather conditions. Additionally, gaining insights into how people view the effects of drought on their means of making a living helps pinpoint the sectors most affected. This information is valuable for devising plans to build livelihoods that are more resilient to drought, as suggested by Jetter and Kok (2014).

In an interview with County officers and directors, County disaster management committees and Program officers of leading NGOs, the KII were asked if they were familiar with the ASAL Policy and their understanding of its objectives. Most of them indicated that;

*“We’ve seen various measures under the ASAL Policy take shape, particularly in resource management. We’ve implemented water harvesting projects and established communal grazing areas to better manage our natural resources. But effectiveness? That’s a mixed bag. While we’ve made some headway, the reach of these projects is not as widespread as it should be. The water harvesting initiatives are helping, but only in localized areas. The communal grazing areas, on the other hand, are facing some resistance from the community because it’s a shift from traditional practices.”*

### Mitigation Measures

The third objective was to investigate the effectiveness of mitigation measures on drought resilience in Wajir County. The respondents were asked to rate the effectiveness of the implementation of drought resilience policies in Wajir County. The results were as shown in Table 3.

**Table 3: Effectiveness of Implementation**

Rating	Frequency	Percentage
Very poor	15	6.0
Poor	21	8.4
Don't Know	33	13.2
Effective	112	44.8
Very effective	69	27.6
<b>Total</b>	<b>250</b>	<b>100</b>

The results in Table 3 showed that majority of respondents viewed the implementation of drought resilience policies in Wajir County as either effective (44.8%) or very effective (27.6%). This suggests that nearly three quarters of the households surveyed believed the mitigation measures were working well. On the other end of the spectrum, a smaller but significant proportion of respondents rated the effectiveness as Very poor (6%) or Poor (8.4%), summing up to 14.4%. These percentages indicate that not everyone was satisfied with the mitigation efforts. Additionally, 13.2% of respondents indicated they did not know about the effectiveness of the programs, which could imply a lack of awareness or engagement with these initiatives. The implications of these results are significant.

The fact that a majority found the policies effective is a positive indicator that the mitigation measures are largely serving their purpose. However, the 14.4% who found it poor or very poor suggest that there are areas needing improvement. Therefore, while the efforts in Wajir County have been largely successful according to respondents, there is still work to do to improve effectiveness and raise awareness. The respondents were asked their levels of agreement/disagreement with statements about the effectiveness of mitigation measures



on drought resilience in Wajir County. The respondents were questioned to find out if they believed the institutional frameworks set up for drought resilience policy implementation by Wajir County government were enough. According to Gerber and Mirzabaev (2017), there have been notable advances in understanding recent droughts and their impact, but researchers still have gaps in areas such as comparing benefits of risk management versus more conventional crisis response solutions. It is essential that government organizations priorities research and policy monitoring and evaluation in order for drought resilience programmes to succeed.

They were also asked to rate the effectiveness of the implementation of drought resilience policies in Wajir County. A Likert scale of 1 to 5 was used where 1 strongly disagreed and 5 strongly agreed. The findings are as shown in Table 4.

**Table 4: Descriptive Analysis of Mitigation Measures**

<b>Statement</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>	<b>Mean</b>	<b>Std. Dev.</b>
Institutional frameworks put in place by the Wajir County government for the effective implementation of drought resilience policies are effective	4.50%	10.90%	5.50%	43.60%	35.50%	3.945	1.124
ASAL policy has strengthened the integration of Wajir County and mobilized the resources necessary to ensure equity and realize the county's potential.	7.30%	22.70%	8.20%	44.50%	17.30%	3.418	1.222

The results shows that majority of respondents agreed that the institutional frameworks were effective for implementing drought resilience policies in Wajir County. The results revealed that 79.1% of respondents were in favor of the existing frameworks. The mean score for this statement was 3.945 on a 1 to 5 scale, which was high and pointed towards general agreement. The standard deviation was 1.124, indicating a moderate variation in responses but still clustering around a positive assessment.

For the ASAL policy, 61.8% of respondents agreed that the policy had been beneficial for Wajir County. The mean score for this statement was 3.418, which, although lower than the institutional frameworks, still indicated a favorable view among the majority of respondents. The standard deviation was 1.222, revealing a bit more spread in the responses compared to the institutional frameworks. The findings imply that the current structures in place are largely serving their intended purpose. However, the ASAL policy had a lower percentage of agreement and a lower mean, signaling room for improvement in this area. Additionally, the standard deviations for both questions were above 1, suggesting that while there is general agreement, there is also a notable spread in opinions. This could indicate that there are sub-groups within the population who have different views, which might warrant further investigation. Overall, the findings suggest that while the county is on the right track, there is still work to do in refining and improving these policies to meet the needs of all residents. These findings were in agreement recommendation by GoK (2015) that, to address drought emergencies in ASAL counties, a common program framework for ending drought emergencies (EDE CPF) was to be created which promotes collaboration and synergy across sectors, actors, geographical areas, and levels of operation. EDE is built on six pillars: institutional development, knowledge management, sustainable livelihoods, human capital, and infrastructure that is climate-proof.

In an interview with County officers and directors, County disaster management committees and Program officers of leading NGOs, the KII were asked if they were familiar with the ASAL Policy and their understanding of its objectives. Most of them indicated that;

*We work as program officers for leading NGOs in the region, and yes, we are familiar with the ASAL Policy. We believe its objectives are well thought out, focusing on crucial issues like food and water security, and better land use. The real challenge we face is coordination. Different groups and levels of government need to work together more effectively for the policy to achieve its goals. Right now, that's an area we could improve on.*

The KIIs were also asked about their awareness of the ASAL Policy and how they learned about it. Most of them indicated that;

*As a county officer, I first heard about the ASAL Policy during an internal briefing a few years ago. It was part of our training and orientation to make sure we're all on the same page when it comes to policy implementation. Since then, I've seen it mentioned in various government reports and updates. It's something we discuss quite a bit, especially when we're planning for the dry seasons.*

*"As someone involved in disaster management for the county, I learned about the ASAL Policy through a series of workshops and seminars organized by both governmental and non-governmental organizations. These sessions are designed to equip us with the necessary information to effectively manage disasters, especially droughts, which are common here. So, the ASAL Policy has been a key part of our training and ongoing education."*

*"As a program officer for a major NGO, I came across the ASAL Policy while researching best practices for drought resilience and sustainable development in arid lands. It's a document that is often cited in discussions around these topics, so it was important for me to understand it fully. Beyond that, we also had some special briefing sessions about the policy, and it's something that comes up often in coordination meetings with other stakeholders in the region."*

### **Inferential Statistics**

This study conducted a correlation analysis to assess the nature and the strength of the association between implementation of ASAL policy and drought resilience in Wajir County, Kenya. A correlation coefficient was calculated to check if there was any mutual relationship between the independent variables, and if these independent variables had any relation to the dependent variable. The correlation results from the study are displayed in Table 5.

**Table 5: Correlation Matrix**

		<b>Drought Resilience</b>	<b>Financial Allocation</b>	<b>Stakeholder Engagement</b>	<b>Mitigation Measures Implementation</b>
Drought Resilience	Pearson Correlation Sig. (2-tailed)	1.000			
Financial Allocation	Pearson Correlation Sig. (2-tailed)	.664**	1.000		
Stakeholder Engagement	Pearson Correlation Sig. (2-tailed)	.549**	.591**	1.000	
Mitigation Measures Implementation	Pearson Correlation Sig. (2-tailed)	.764**	.685**	.765**	1.000
		0.000	0.000	0.000	

\*\* Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis results in Table 5 depicts a strong positive and significant association between financial allocation and drought resilience ( $r=0.664$ ,  $p<0.01$ ) at the 1% level of significance. This implies that when adequate financial resources are allocated under the ASAL policy, there is a significant enhancement in the community's drought resilience in Wajir County, Kenya. This suggests that proper financial backing leads to effective implementation of drought resilience measures, thereby improving the community's ability to withstand drought conditions. This is in line with the assertions made by Pulzl and Treib (2007), who stated that the degree to which the goals of public policy may be attained is dependent on the amount of money that is available as well as the level of expertise that is possessed. According to what they discovered, a significant obstacle to making headway towards proactive drought-risk management in particular and the disaster risk management process as a whole is the lack of finances to assist the creation of long-term drought resilience. This was found to be the case. According to Bressers, Bressers, and Larrue (2016), the absence of sufficient governance frameworks can produce uncertainty and incoherence in the decision-making and planning processes of some organizations.

Additionally, the results revealed a strong positive and significant association between stakeholder engagement and drought resilience ( $r=0.549$ ,  $p<0.01$ ) at the 1% level of significance. This implies that greater involvement of community stakeholders leads to improved drought resilience. This points to the fact that the efficacy of these policies in alleviating the effects of drought is likely to be increased when community members and other stakeholders are actively engaged in the formulation and implementation of ASAL policies. The findings are in agreement with those that were presented by Mkonda (2022), who demonstrated that an inadequate number of key stakeholders inhibited the creation of decision-making bodies and the entire process of policy formulation. According to Mkonda (2022), it is vital to actively engage stakeholders in the process of adjusting to the effects of climate change. This is because stakeholders are essential components in both the adaptation process and the policy development.

Finally, the study established that there was a strong positive and significant association between mitigation measures implementation and drought resilience ( $r=0.764$ ,  $p<0.01$ ) at the 1% level of significance. This implies that effective implementation of mitigation measures has a significant positive impact on the community's drought resilience. This suggests that the strategies put in place to combat the effects of drought are effectively improving the community's ability to cope with such adverse conditions. The findings support the conclusion reached by Gerber and Mirzabaev (2017), which states that considerable advancements have been achieved over the course of the previous decade to gain a better understanding of droughts and the effects they have. The study also observes that there are major gaps in research, policy, and practice, particularly about the virtues of risk management in comparison to traditional approaches to crisis management. When it comes to the effectiveness of drought resilience programmes, the focus of government agencies towards research as well as policy monitoring and evaluation is essential.

### Regression Analysis

A regression analysis was carried out to determine the statistical significance and relationship between the adoption of the ASAL policy and the level of drought resilience in Wajir County, Kenya. The model summary, ANOVA, and regression of coefficient results are respectively illustrated in Tables 6, 7, and 8.

**Table 6: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.791a	0.626	0.614	0.5028

a Predictors: (Constant), Mitigation Measures Implementation, Stakeholder Engagement, Financial Allocation  
**Source: Field Data, 2023**

The results presented in Table 6 showed that the coefficient of determination (R squared) is 0.626, and the adjusted R squared is 0.614, significant at a 95% confidence level. An R-squared of 0.626 suggests that the

combination of financial allocation, stakeholder engagement, and mitigation measures implementation accounts for 62.6% of the variability in drought resilience in Wajir County, Kenya. The adjusted R-squared of 0.614 further indicates that, in the exclusion of the constant variable, financial allocation, stakeholder engagement and mitigation measures implementation jointly explains 61.4% of the variation in drought resilience. The remaining 37.4% of the variation in drought resilience is explained by other factors that were not included in the current model. This means that while the financial allocation, stakeholder engagement and mitigation measures implementation are highly significant in explaining drought resilience in Wajir County, there are also other factors not considered in the study that contribute to drought resilience.

**Table 7: Analysis of Variance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	40.639	3	13.546	136.828	.000 <sup>b</sup>
	Residual	24.269	246	0.099		
	Total	64.908	249			

a. Dependent Variable: Drought Resilience

b. Predictors: (Constant), Mitigation Measures Implementation, Stakeholder Engagement, Financial Allocation

**Source: Field Data, 2023**

As displayed in Table 7, the Analysis of Variance (ANOVA) results indicates the model's statistical significance in explaining the effect of financial allocation, stakeholder engagement, and mitigation measures implementation on drought resilience in Wajir County, Kenya. The significance of the model is confirmed by a p-value of less than 0.05 ( $p=0.000$ ). This implies that the model used was highly significant in explaining how implementation of these policy factors influence drought resilience, supporting its usability for policy development and decision-making in this context.

**Table 8: Multiple Regression of Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	
	B	Std. Error				
1	(Constant)	0.792	0.255	3.109	0.002	
	Financial Allocation	0.221	0.076	0.251	2.896	0.005
	Stakeholder Engagement	0.103	0.088	0.115	1.172	0.244
	Mitigation Measures Implementation	0.483	0.104	0.504	4.654	0.000

a. Dependent Variable: Drought Resilience

**Source: Field Data, 2023**

The regression model therefore became;

$$Y = 0.792 + 0.221X_1 + 0.103X_2 + 0.483X_3$$

Where:

Y = Drought Resilience

X<sub>1</sub> = Financial Allocation

X<sub>2</sub> = Stakeholder Engagement

X<sub>3</sub> = Mitigation Measures Implementation

Table 8 showed the regression coefficients, indicating a significant and positive relationship between financial allocation and drought resilience ( $\beta = 0.221$ ,  $p = 0.005 < 0.05$ ). With a calculated t-statistic of 2.896, which is above the critical t-statistic of 1.96, the result is significant. This suggests that an increase in financial allocation by one unit will improve drought resilience by 0.221 units. This means that, when more funds are allocated to deal with drought, the community's ability to withstand and recover from drought conditions improves significantly. These findings are in line with Pülzl and Treib's (2007) conclusion that the financial resources and technical capability are both necessary for the achievement of public policy objectives. According to Wilhite, Sivakumar, and Pulwarty (2014), one of the main obstacles hindering progress in proactive drought-risk management, as well as in the broader area of disaster risk management, is the lack of sufficient funding. This financial constraint makes it difficult to invest in the development of long-term strategies for building resilience against drought. The shortage of funds affects not just immediate response measures but also impacts the ability to plan and implement sustainable solutions for the long term. The study suggests that without adequate financial support, the efforts to transition from a reactive approach to a more proactive and planned strategy for managing drought risks are significantly compromised. The limitations in funding can result in the neglect of essential elements like community engagement, infrastructure development, and research, all of which are crucial for building long-term resilience against drought and other disasters. Therefore, the lack of funding emerges as a critical issue that needs to be addressed to make meaningful advancements in the field of drought and disaster risk management.

Conversely, the results show that there existed a positive but statistically insignificant relationship between stakeholder engagement and drought resilience ( $\beta = 0.103$ ,  $p = 0.244 > 0.05$ ). Supported by a calculated t-statistic of 1.172, which is below the critical t-statistic of 1.96, the result is not statistically significant. These results imply that, while stakeholder engagement seems to have some positive influence on drought resilience, the relationship is not strong enough to be considered statistically significant. This is in agreement with the assertions by Aldunce et al. (2016) that, stakeholders enables the implementation of essential aspects required for developing strength in climate change challenges and uncertainties. The study also found critical factors that needed urgent attention from stakeholders, especially the local government and the community and stakeholders are also pivotal in addressing the challenges of communication and power structures associated with transformability.

Finally, the study found a significant and strong positive relationship between mitigation measures implementation and drought resilience ( $\beta = 0.483$ ,  $p = 0.000 < 0.05$ ). The calculated t-statistic is 4.654, surpassing the critical t-statistic of 1.96. This implies that for each unit improvement in mitigation measures implementation, drought resilience is expected to improve by 0.483 units. This shows that, when communities take more steps to prepare for and mitigate the effects of drought, they become significantly more resilient to it. These results suggest that financial allocation and mitigation measures implementation are strong predictors of drought resilience in Wajir County, Kenya. The data supports the idea that investing in these areas will significantly improve the community's ability to handle drought conditions. According to the findings of research conducted by Cheah and Ho (2020) regarding the efficacy of industrial policy implementation for open innovation, it was discovered that the capability of the top management team of public research institutes in portfolio management partially mediates the conversion of project funding into the outcomes of innovation collaboration. The execution of industrial policy through the pooling of funds for research and development has an effect on the formation of open innovation partnerships between public research institutes and private companies.

## SUMMARY

Descriptive analysis revealed a mixed perception regarding the efficacy of financial allocation. A majority (56%) agreed that financial allocation is effective in implementing the policy, while 32% disagreed, and 6% either strongly disagreed or strongly agreed. Moreover, the respondents identified various strategies employed

by the county government to advance the ASAL policy. The most commonly cited were political and technical empowerment (50%), followed by capacity building and training for county staff (25%). Community mobilization and engagement were mentioned by 13% of the respondents, while collaboration with development partners accounted for 12%.

When asked to rate the adequacy of financial allocation for implementing the ASAL policy, opinions were largely divided. Only 38% of the respondents believed that financial allocation was sufficient, while a majority (52%) considered it inadequate; 10% were unsure. Interviews with key stakeholders, including government officials and community leaders, overwhelmingly indicated that the current financial allocation is insufficient to address the complex challenges of drought resilience in Wajir County. It was emphasized that the limited funds negatively impact the execution of various planned activities, such as developing water infrastructure, supporting livestock programs, and executing community-based drought resilience initiatives. This lack of adequate funding creates a significant barrier to implementing effective drought resilience policies.

The second objective of the study focused on evaluating the role of stakeholder engagement in enhancing drought resilience through the ASAL policy in Wajir County. The majority of respondents (66%) indicated that the County government actively involves various stakeholders in the policy's implementation, highlighting a general awareness of the collaborative approach to drought resilience. However, not all stakeholders are involved equally; the County Government is perceived as the most active participant (48%), followed by the National Government (28%), NGOs (16%), and CBOs (8%). When asked why this disparity exists, respondents cited several challenges, such as poor coordination among stakeholders, ineffective communication, conflicting interests, and the underrepresentation of marginalized groups. Additionally, mechanisms for engaging stakeholders were identified, which include promoting community participation, improving communication, and addressing cultural and social norms. Resource management, livelihood diversification, and access to basic services were also mentioned as part of the county government's strategy during interviews.

Concerning the role of the media in creating awareness about the ASAL policy on drought resilience, the majority of respondents (65%) felt that the media had not done enough. This sentiment was echoed in the interviews, where participants agreed that both print and electronic media had not provided adequate coverage of the policy. Consequently, many residents were unaware of the policy's existence or its importance in addressing drought resilience. Suggestions were made that the county government could better utilize the media by sponsoring advertisements and awareness campaigns. Additionally, it was proposed that the media could take a more active role by conducting investigative reports that highlight the significance of the policy. Overall, the study reveals that while stakeholder engagement is generally effective, more needs to be done to equalize participation among stakeholders and to utilize the media effectively for public awareness.

The third objective of the study aimed to assess the effectiveness of mitigation measures for drought resilience in Wajir County. Respondents were queried on their perceptions of the sufficiency of institutional frameworks established by the Wajir County government. Majority of respondents agreed that the institutional frameworks were effective for implementing drought resilience policies in Wajir County. The results revealed that 79.1% of respondents were in favor of the existing frameworks. The mean score for this statement was 3.945 on a 1 to 5 scale, which was high and pointed towards general agreement. The standard deviation was 1.124, indicating a moderate variation in responses but still clustering around a positive assessment.

For the ASAL policy, 61.8% of respondents agreed that the policy had been beneficial for Wajir County. The mean score for this statement was 3.418, which, although lower than the institutional frameworks, still indicated a favorable view among the majority of respondents. The standard deviation was 1.222, revealing a bit more spread in the responses compared to the institutional frameworks. The findings imply that the current structures in place are largely serving their intended purpose. However, the ASAL policy had a lower

percentage of agreement and a lower mean, signaling room for improvement in this area. Additionally, the standard deviations for both questions were above 1, suggesting that while there is general agreement, there is also a notable spread in opinions. This could indicate that there are sub-groups within the population who have different views, which might warrant further investigation. Overall, the findings suggest that while the county is on the right track, there is still work to do in refining and improving these policies to meet the needs of all residents.

The study also elicited opinions on the actual effectiveness of policy implementation, with half of the respondents believing that the measures in place were very effective. Despite this, nearly as many respondents, 44%, disagreed with this view, revealing a lack of consensus on the impact of the policies designed to build drought resilience. The varying opinions indicate that while there is a level of confidence in the institutional frameworks and mitigation measures, a considerable number of people feel that these efforts are not sufficient. These contrasting perspectives suggest the need for a closer examination of the existing policies and the institutional framework to address the gaps and challenges identified by a significant portion of respondents.

The model summary results revealed a coefficient of determination (R-squared) of 0.626, and adjusted R squared of 0.614, significant at a 95% confidence level, implying that the combination of financial allocation, stakeholder engagement, and mitigation measures implementation accounts for 62.6% of the variations in drought resilience in Wajir County, Kenya. The adjusted R-squared of 0.614 further indicates that, in the exclusion of the constant variable, financial allocation, stakeholder engagement and mitigation measures implementation jointly explains 61.4% of the variation in drought resilience. The remaining 37.4% of the variation in drought resilience is explained by other factors that were not included in the current model. This means that while the financial allocation, stakeholder engagement and mitigation measures implementation are highly significant in explaining drought resilience in Wajir County, there are also other factors not considered in the study that contribute to drought resilience.

The study also found that stakeholder engagement, while positively correlated with drought resilience ( $r=0.549$ ,  $p<0.01$ ), did not demonstrate a statistically significant impact in the regression analysis ( $\beta = 0.103$ ,  $p = 0.244$ ). Although stakeholder engagement appears to have some influence on improving drought resilience, this relationship was not statistically strong enough to be considered significant. This echoes the findings of Aldunce et al. (2016), suggesting that stakeholder engagement is one piece of a more complex puzzle, and other variables might be required to significantly improve drought resilience.

Additionally, the implementation of mitigation measures showed both a strong positive correlation with drought resilience ( $r=0.764$ ,  $p<0.01$ ) and a significant impact in the regression model ( $\beta = 0.483$ ,  $p = 0.000$ ). This indicates that for each unit increase in mitigation measures implementation, there is an expected improvement in drought resilience by 0.483 units. These findings support previous research by Gerber and Mirzabaev (2017), which argued for a more comprehensive understanding and approach to drought resilience that includes financial allocation and effective mitigation measures.

## **CONCLUSION AND RECOMMENDATIONS**

This study concluded that the issue of financial allocation is a major point of contention among the stakeholders in Wajir County, Kenya. While some believe the funds allocated are adequate, a majority feel that more needs to be done. The perceived inadequacy of funds directly affects the county's ability to enact critical drought resilience activities such as the development of water infrastructure, livestock programs, and community-based initiatives. Therefore, a reevaluation of financial strategies may be essential for successful policy implementation, given that limited funds act as a considerable barrier to comprehensive and effective drought resilience plans.

Additionally, the study concluded that stakeholder engagement does exist in Wajir County, Kenya but is significantly skewed towards governmental bodies. While this approach ensures that policies are backed by official mandates, it risks marginalizing other groups like NGOs and community-based organizations, which provides valuable grassroots perspectives. The lack of equitable involvement across all stakeholders indicates that there is room for better coordination and inclusivity in the policy implementation process. This can be achieved through targeted communication strategies and making concerted efforts to involve groups that have been traditionally underrepresented as have been shown in the study.

Moreover, this study concluded that the role of the media in public awareness about the ASAL policy on drought resilience is not adequately realized. In an era where information dissemination is critical, the limited reach of both print and electronic media in educating the public is a significant drawback. This implies that a multi-pronged communication strategy involving media could significantly improve public understanding and engagement with drought resilience initiatives. More proactive efforts, like sponsored advertisements and investigative reports focusing on the policy, helps bridge the awareness gap.

The effectiveness of existing institutional frameworks and mitigation measures is met with mixed opinions among respondents. Although a significant portion of the community finds these effective, an equally large group has reservations. Such polarization in public opinion implies a need for a more in-depth analysis and perhaps a revamp of existing strategies. Responding to the community's concerns by refining policies could create a more cohesive and effective approach to drought resilience in Wajir County. Finally, this study concludes that although the current focus on financial allocation, stakeholder engagement, and mitigation measures is significant, they don't explain the entire variation in the dependent variable. This calls for a broader scope in future research to identify these missing factors. These unknown variables is likely to hold the key to new strategies or interventions that can further improve drought resilience in the community, creating a more holistic approach to tackling the complex challenges posed by drought conditions.

The study revealed that there is need for reevaluating the current financial strategies for implementing the ASAL policy on drought resilience in Wajir County. Given that a majority of respondents and key stakeholders found the funding insufficient, it is recommended that the county government of Wajir should seek additional funding avenues, which should include grants, public-private partnerships, or aid from international organizations. Such financial bolstering will better support existing projects like water infrastructure development and livestock programs, which are critical for building drought resilience.

Although a general awareness of stakeholder engagement exists, there's room for improvement in including diverse perspectives. The study recommends the county government to create more inclusive dialogue sessions, town-hall meetings, and community consultations to engage NGOs, CBOs, and marginalized groups. Improved communication and coordination could lead to more holistic policy approaches and possibly fill the gaps identified in the study. The study highlights that the media has not been adequately utilized in promoting public awareness of the ASAL policy. Therefore, it is recommended that the county government collaborate more closely with both print and electronic media to sponsor awareness campaigns and advertisements. The media can also conduct in-depth reports to raise public awareness on the importance of drought resilience.

With contrasting opinions about the effectiveness of current mitigation measures, it is essential to examine existing strategies critically. Practical steps could include conducting impact assessments, using data analytics to measure results, and revisiting the established institutional frameworks. The aim is to refine these frameworks to make them more adaptive and responsive to the community's needs. Actual Policy Implementation: Given that nearly half of the respondents do not find the current policies very effective, it becomes imperative to review and perhaps revise these policies. Continuous feedback mechanisms can be established to gauge public perception and adapt policies accordingly, ensuring that they are as effective as possible.



## Suggestions for Further Research

The findings of this study open up various areas for further research. Based on these findings, the independent variables used in the current study were able to jointly explain 62.6% of the variations in drought resilience through financial allocation, stakeholder engagement, and mitigation measures. Future research is hereby recommended that will explore the remaining 37.4% of unexplained variation. Additional factors like the role of local communities, traditional coping mechanisms, and climate change impact should be investigated.

Based on the findings, 65% of respondents believed the media had not done enough to create awareness about drought resilience policies. Therefore, this study suggests that further studies be conducted that will specifically focus on the effectiveness of different media channels in creating awareness and engaging the public in ASAL policy. In addition, since opinions on the adequacy of financial allocation were divided, further research should be conducted delving into what specific activities or programs are underfunded. This will help in the more effective allocation of resources for implementing ASAL policies.

While the current study showed that the majority of the respondents believed the mitigation measures were effective, there was a significant proportion that disagreed. Therefore, future research should look into specific mitigation activities to assess their real-world impact and to understand why a portion of the community finds them ineffective. Furthermore, this study focused solely on Wajir County. Future research should consider extending the scope to include other counties facing similar challenges. This will most likely allow for a more comprehensive understanding of the effectiveness of ASAL policies and will provide a more generalized set of recommendations for improving drought resilience across Kenya.

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