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Effect of Drought on Children's Rights in Igembe North Sub County, Kenya

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ABSTRACT: Drought is a major climate-related hazard that threatens children's rights to food, health, education, protection, and adequate living conditions. In Igembe North Sub-County, recurrent droughts disrupt livelihoods and access to essential resources, increasing children's vulnerability. Guided by Climate Justice Theory, this study examined the effect of drought on children's rights in Igembe North Sub-County, Kenya. The study adopted a convergent parallel mixed-methods research design. A sample of 395 household respondents was selected using stratified and simple random sampling, while purposive and census sampling techniques were used to select key informants and school-going children. Quantitative data were collected using structured questionnaires, while qualitative data were obtained through key informant interviews and focus group discussions. Quantitative data were analyzed using frequencies, percentages, means, standard deviations and ANOVA, whereas qualitative data were analyzed thematically, through content analysis and narrative analysis. The findings indicated that drought had a statistically significant effect on children's rights ($F = 1.667$, $p = 0.012$). Qualitative findings further showed that drought compromised children's access to adequate food, healthcare, education, and protection, particularly in households dependent on climate-sensitive livelihoods. The study concludes that recurrent drought constitutes a significant threat to the realization of children's rights in Igembe North Sub-County. The study recommends strengthening climate-smart agriculture and livelihood diversification, improving child-sensitive food and health support systems, establishing school-based environmental and child-rights clubs, strengthening drought preparedness and response mechanisms, and integrating children's rights into county and national drought and climate adaptation policies. These measures would enhance resilience and promote the protection and realization of children's rights in drought-prone communities.

KEYWORDS*:* Drought, children's rights, climate change, climate justice, child vulnerability, Igembe North Sub-County, Kenya.

INTRODUCTION

Climate change is a long-term alteration in climatic conditions and variability resulting from natural processes and human activities such as fossil-fuel use, deforestation and industrialization (Bourke, 2023; UNFCCC, 2024). Its effects are increasingly manifested through drought, erratic rainfall, flooding and rising temperatures, creating significant risks to human wellbeing and development. Children are particularly vulnerable because of their physiological and cognitive development, dependence on adults and limited capacity to cope with environmental shocks. Climate change therefore threatens the realization of fundamental children's rights, including the rights to survival, health, food, education, protection and participation as recognized under the United Nations Convention on the Rights of the Child (UNCRC) (Erdem Türkelli, Vandenhole, & Wouters, 2021). In this study, children's rights specifically refer to access to education, food and healthcare. Globally, climate change has become a major threat to children's health, education and development. Children living in low- and middle-income countries are particularly exposed because poverty, weak infrastructure and limited adaptive capacity intensify the effects of climate-related hazards. UNICEF (2024) estimates that hundreds of millions of children live in areas exposed to extreme flooding and drought. Climate-related shocks interrupt schooling, reduce household food security, increase exposure to disease and undermine children's psychological wellbeing. Approximately 242 million children in 85 countries experienced interruptions to schooling due to extreme weather events in 2024, demonstrating the growing influence of climate hazards on children's educational rights. Drought and crop failure also contribute to food insecurity and undernutrition, which impair physical growth, cognitive development and educational performance (WHO, 2022, 2024).

Among the various climate hazards, drought presents a particularly serious threat to children because of its effects on food, water and household livelihoods. In agriculture-dependent communities, drought cause crop failure, food insecurity, depletion of water resources and livelihood disruption. These consequences directly undermine children's rights to health, education, protection and access to clean water (Bezu, 2023; Wario, 2024). When household resources decline, families adopt coping strategies such as

migration, withdrawing children from school, reducing food consumption or/and increasing children's participation in household labour. The effects of drought are particularly pronounced in developing countries, where communities often have limited resources and institutional capacity to respond to climate-related shocks. Across Sub-Saharan Africa, recurrent droughts have contributed to food insecurity, malnutrition, school dropout and displacement among children. Prolonged drought in the Horn of Africa, for example, has been associated with increased child malnutrition, school withdrawal and harmful household coping mechanisms (UNICEF, 2022). Children in such settings are also exposed to reduced access to healthcare, safe water and adequate shelter. These challenges are compounded by poverty and weak social protection systems, making it difficult for affected households to safeguard children's rights.

The African situation is reflected in countries experiencing recurrent climate-related humanitarian crises. In Somalia, climate shocks have contributed to displacement, destruction of schools and infrastructure, malnutrition and disease among children, while Madagascar has experienced recurring disasters and food insecurity affecting large numbers of children. Africa is particularly vulnerable because many communities depend on rain-fed agriculture and natural resources while possessing limited adaptive capacity. In Kenya, climate variability has similarly affected food security and child welfare. In Meru County, erratic rainfall, drought, pest outbreaks and environmental degradation have reduced soil fertility, increased food insecurity and threatened children's welfare and future prospects (Affoh et al., 2022). Kenya has experienced both drought and other climate-related hazards that affect children's rights. Although improvements in food security were reported between July 2023 and February 2024, subsequent climatic shocks continued to affect vulnerable households. The country's experience demonstrates how climate events can disrupt education, health, food security, water access and psychosocial wellbeing. Children are particularly vulnerable because disruptions to household livelihoods and essential services can increase the risk of malnutrition, school interruption, child labour and other protection concerns. These challenges highlight the importance of examining climate-related risks from a child-rights perspective rather than considering climate change only as an environmental or economic problem.

At the county level, Meru is exposed to prolonged drought, erratic rainfall, pest and disease outbreaks, deforestation, water scarcity, soil degradation and other environmental pressures. The Meru County Participatory Climate Risk Assessment identified drought and other climate-related hazards as important sources of vulnerability across the county and informed the County Climate Change Action Plan. Changes in seasonal patterns have contributed to longer drought periods, unpredictable rainfall, water scarcity, crop failure and heat stress. The effects are particularly important for rural communities and households dependent on rain-fed agriculture and natural water sources. Within this wider context, Igembe North Sub-County represents an important setting for examining the relationship between drought and children's rights. Children in the area are vulnerable to climate-related effects, particularly food and water insecurity. Njeru (2017) reported that 88.3% of children and expectant mothers assessed in Meru County were considered highly vulnerable to climate change effects. The Meru County Participatory Climate Risk Assessment also identified drought, water-related challenges, environmental degradation and other climate risks affecting local communities. However, the available evidence provides limited localized information on how drought specifically affects children's rights in Igembe North Sub-County. Therefore, although existing evidence establishes that climate change poses substantial risks to children globally, nationally and within Meru County, there remains a need for context-specific evidence on the effects of drought on children's rights in Igembe North Sub-County. The present study consequently focused specifically on examining the effect of drought on children's rights in Igembe North Sub-County, Kenya, thereby contributing localized evidence for child-sensitive climate adaptation and rights-based interventions.

STATEMENT OF THE PROBLEM

Children in Igembe North Sub-County, Meru County, are increasingly vulnerable to the adverse effects of climate change, which threaten their fundamental rights to survival, health, education, safety, and participation, as enshrined in the United Nations Convention on the Rights of the Child (UNCRC). The region is characterized by recurrent droughts, erratic rainfall, and rising temperatures, which have severely disrupted agricultural productivity, water availability, and food security factors critical to children's well-being and development (NDMA, 2024). In recent years, unpredictable weather patterns have led to increased malnutrition, school absenteeism, and exposure to climate-induced displacement, disproportionately affecting children in marginalized communities (UNICEF, 2021; Government of Kenya, 2020). Despite Kenya's commitment to international child protection and climate frameworks, including the UNCRC and the Paris Agreement, there remains a significant implementation gap at the local level. In Igembe North, children's right to education is undermined when families are forced to prioritize household survival over schooling, particularly during prolonged drought periods. Additionally, access to clean water and health services becomes limited during extreme weather events, threatening children's right to health and survival (Watts et al., 2018).

Furthermore, children's right to participation in decision-making processes around climate adaptation and resilience-building remains largely unrecognized in local governance. These challenges are exacerbated by weak institutional coordination, limited climate adaptation funding, and inadequate child-sensitive policies, which collectively hinder the realization of child rights in the face of environmental degradation (Save the Children, 2021; Hickman et al., 2021). There is, therefore, a pressing need to investigate and document how climate change is affecting children's rights in Igembe North Sub County, Kenya. Such insights are

vital to inform evidence-based policy interventions, promote climate justice, and safeguard the welfare of children who are among the most vulnerable to climate-related shocks but are least responsible for causing them. Therefore, the study was conducted to investigate the effect of drought on children's rights in Igembe North Sub County, Kenya.

RESEARCH OBJECTIVE

1. To assess the effect of drought on children's rights in Igembe North Sub County, Meru County, Kenya.

RESEARCH HYPOTHESIS

H_{a1} Drought has no statistical effect on children rights in Igembe North Sub County, Kenya.

THEORETICAL FRAMEWORK

Climate Justice theory was put forward by Mary Robinson and Naomi Klein. It based on the asssumptions that climate change disproportionately affects those who contribute least to greenhouse gas emissions, that historical and structural inequalities increase climate vulnerability, that climate policies should incorporate human rights and social justice, and that marginalized groups should participate in climate decision-making (Baxi, 2016). Its strengths include highlighting unequal climate impacts, promoting historical responsibility and equity, supporting participatory governance, recognizing indigenous knowledge, encouraging structural solutions, and emphasizing intergenerational equity (Parsons, Godden, Henrique, Tschakert, Gonda, Atkins, Steen & Crease, 2025). However, the theory faces weaknesses, including difficulties in enforcing climate justice principles internationally, disagreements over historical responsibility, limited financial and institutional capacity in developing countries, and challenges in translating its broad interdisciplinary principles into specific policies. The theory is particularly applicable to children's rights because climate change undermine children's rights to health, education, protection, development, and participation through disasters, displacement, food insecurity, pollution, and extreme temperatures. It therefore provides a useful framework for advocating child-sensitive climate policies, meaningful participation of children, equitable adaptation measures, disaster preparedness, and protection of the rights of present and future generations (Proulx, Daelmans, Baltag & Banati, 2024). Climate Justice Theory explains why children, as a vulnerable group that contributes little to climate change, may experience disproportionate effects of drought, including food and water insecurity, poor health, disrupted education, and increased vulnerability (Amorim-Maia, Anguelovski, Chu, & Connolly, 2022; Araos, 2023).

EMPIRICAL STUDIES

Al-Hammouri, Al-Billeh & Derba (2023) did a comparative analysis on the extent of climate change on children's ability to survive, grow, and thrive, as well as the extent to which children are protected from the effects of climate change in accordance with international and national legislation, identifying protection mechanisms and making proposals for their development to ensure greater protection and reduction in the effects of climate change on children in Jordan. The study was conducted in Jordan thus the study findings could not be generalized to the Kenya situation where the current study was conducted due to geographical differences. The study followed a comparative analytical approach between the Declaration on Children and the Jordanian Constitution while the current study used mixed method research to understand the effect of climate change on children's rights in Igembe sub county Kenya, with data collected through questionnaires for household heads, and interview schedules for key informants.

Patel, Mathew, Nanda, Mohanty, and Saggurti (2020) conducted a study titled "Voices of rural people: Community-level assessment of effects and resilience to natural disasters in Odisha, India." This study explored the effects of, and resilience to, cyclones, floods, droughts, and heatwaves in Odisha, and identified government strategies that help mitigate these natural disasters. The study was conducted in India thus the findings cannot be generalized to the Kenya situation where the current study was conducted due to geographical differences. Primary data in the study was collected through a qualitative study undertaken from April 2017 to June 2017 in three districts of Odisha. The current study used mixed method research to collect both quantitative and qualitative data over a 1-month period. The study conducted In-depth interviews and focus group discussions with community members and key stakeholders at different levels while the current study conducted household survey and Key informant interviews.

Chidarikire and Saruchera (2024) aimed to understand how El Niño-induced drought affected the physical, emotional, and socioeconomic wellbeing of child-headed rural learners and how these impacts influenced their educational experiences and outcomes in their study "Exploring multifaceted impacts of El Niño driven drought on child-headed rural learners' well-being in drought-prone Chivi, Zimbabwe." The central research question was: How do El Niño-driven droughts affect the wellbeing and educational trajectories of child-headed households in the Chivi district of Zimbabwe? This study adopted a qualitative research paradigm and a case study design. Fifteen participants were selected using purposive sampling, including young learners from child-headed households and adult community members. Data was collected through two focus group discussions, one with the young learners and another with the adult participants. The data was analyzed using thematic analysis. The study found that El Niño-driven droughts exacerbate the vulnerabilities of child-headed households, leading to food insecurity, water scarcity, increased household responsibilities, and mental health challenges. These factors significantly undermine the learners' ability to engage in and succeed

in their educational pursuits. The study recommended the implementation of targeted interventions, such as school-based feeding programmes and psychosocial support, to mitigate the adverse impacts of drought on child-headed rural learners.

Golo, Ibrahim, Bolanle and Erinosho (2025) investigated the impacts of climate change on children's rights to food and health in coastal communities in Ghana. This was attributed to the fact that anthropogenic climate change impacts all internationally recognized human rights; nevertheless, the international community prioritizes children's human rights due to their vulnerability to environmental changes. However, there is a paucity of empirical studies regarding the effects of climate change-related events on children's rights in Ghana's coastal communities. The Purpose of the study was to examine the effects of climate change on children's rights to food and health, as established in the United Nations Convention on the Rights of the Child, through comprehensive interviews and focus group discussions conducted in small-scale fishing communities in the Keta Municipalities and Ketu South district of the Volta Region of Ghana. Consequently, 62 participants from four communities identified as vulnerable to climate change and variability were selected by purposive and convenience sampling techniques. The study illustrated climate change-related phenomena, including tidal waves and resultant floods, as well as unforeseen severe droughts, disrupted economic activities, adversely impacting incomes, leading to malnutrition and health issues, thereby compromising fundamental human rights and the quality of life for children.

Zhou and Gong (2018) investigated the impact of drought on education in Sub-Saharan Africa: Evidence from Kenya and Somalia. This study looked at the disruption of education caused by drought in East Africa, particularly in countries like Kenya and Somalia, where schools are forced to close, or children are needed to help their families during droughts. The research indicated that extended school closures due to drought-related disruptions hinder children's educational development. The study established that droughts exacerbate food insecurity, leading to children having to abandon school to assist in finding water or food for the family. The study also established that extended absences from school due to droughts can have long-term effects on children's educational progress and opportunities. The extended absenteeism from school negatively affected their academic performance. The study recommended that the government should provide school feeding programs in schools affected by drought as a way of promoting attendance and retention of students in schools.

Epstein, Benmarhnia and Weiser (2020) investigated effect of Drought on Illness among Young Children in Uganda, 2009–2012. This was in light of concerns that changing precipitation patterns resulting from climate change are likely to have deleterious effects on health. The study examined historical relationships between precipitation and diarrhea, cough, and fever among children aged 0–24 months in Uganda, a drought-prone region. Using data from the Uganda National Panel Survey from 2009 to 2012 (2,324 observations), the study used logistic regression models to evaluate the relationships between deviations from annual and 30-day precipitation and caregiver-reported diarrhea, cough, and fever, adjusting for sociodemographic characteristics and including enumeration of area-fixed effects. Nonlinearities were assessed using restricted cubic splines. The study established that there was a nonlinear (J-shaped) relationship between deviations from annual precipitation and the three child illness outcomes. Trends of reduced rainfall in Uganda are likely having negative effects on child health.

While the study by Epstein et al. (2020), examined the impact of drought and reduced precipitation on specific child health outcomes in Uganda, limited empirical research exists in Kenya that explores the comprehensive effects of climate change on the full range of children's rights. Kenya, like Uganda, faces increasing climate variability, including prolonged droughts, flash floods, and temperature extremes, yet there is insufficient localized evidence on how these climatic changes are affecting children's access to health services, quality education, safety and protection, and their participation in climate-related decision-making. Furthermore, existing studies have largely focused on health outcomes, neglecting the interconnected impacts of climate change on children's well-being, learning outcomes, displacement, and exposure to child labor, abuse, and exploitation in the wake of climate-induced emergencies. This created a critical need for context-specific, rights-based research in Kenya that investigated how environmental stressors compromise the realization of children's rights and how national policies and community-level responses addressed these emerging vulnerabilities.

Dhongde and Spyrou (2023) looked at the Impact of Drought on Children's Educational Outcomes in Ethiopia. This was attributed to the fact that droughts had become more frequent and more intense in countries across the world. The study combined a rich panel data set on 2000 school-aged children with monthly rainfall data in Ethiopia between 2009 and 2017. The study found out that droughts decreased the probability that a child would remain enrolled in school by more than 36%. Among children who remain enrolled, droughts adversely affected their grade progression. These children suffered from high food insecurity. Girls, in particular, were at greater risk of being malnourished and stunted. With the onset of a drought, children spent more time on paid activities and less time on sleep. Overall drought had a significant negative impact on children's overall well-being.

Checchi, AbuKoura, Kadiyala, Nyawo, & Maina (2025) conducted a study titled "Predicting the burden of acute malnutrition in drought-prone regions of Kenya: a statistical analysis" to explore whether routinely collected and/or publicly available data could be used to predict the prevalence of global and severe acute malnutrition, as well as the mean weight-for-height Z-score and middle-upper-arm circumference for age Z-score, in arid- and semi-arid regions of Kenya, where drought is projected to increase in frequency and intensity. The study covered six counties of northern Kenya and the period 2015-2019, during which a major drought occurred. To validate models, the study sourced and curated so-called SMART anthropometric surveys covering one

or more sub-counties for a total of 79 explicit survey strata and 44,218 individual child observations. The study associated these surveys' predictors specified at the sub-county or county level, and comprising climate food security, observed malnutrition, epidemic disease incidence, health service utilization and other social conditions. Generalized linear or additive models and random forests were explored and quantified their out-of-sample performance using cross-validation. The study found that in most counties, survey-estimated nutritional indicators were worst during the October 2016-December 2019 drought period; the drought also saw peaks in insecurity and steep vaccination declines. Candidate models had moderate performance, with random forests slightly outperforming generalized linear models. The most promising performance was observed for global acute malnutrition prevalence. However, the study did not identify a model that could very accurately predict malnutrition burden, but analyses relying on larger datasets with a wider range of predictors and encompassing multiple drought periods may yield sufficient performance and are warranted given the potential utility and efficiency of predictive models in lieu of assumptions or expensive and untimely ground data collection.

Mburu et al (2024) assessed the effects of drought on child protection in hard-to-reach communities in Kenya with an aim to determine child protection-related needs among drought-affected populations in selected arid counties in Kenya. The specific objectives included: to understand the different underlying vulnerabilities that children and adolescents face during drought with a gender and disability lens; to assess the current or potential presence of emergency risks and their likelihood of occurrence, the capacities, and coping mechanisms of families; identify emerging areas of concern regarding children and adolescents, including those with disability; and informing the interventions through development partners and relevant government ministries. The study adopted a non-experimental design that utilized a mixed-methods approach. The quantitative data collection involved a survey of 1800 households. The information was collected about children (i.e., individuals aged 0–17), their caregivers, and their households. Two methods were used to collect qualitative data. These included Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs).

The study established that during drought and in the recovery period, there were increased cases of children dropping out of school mainly due to the migration of families. Child labour and household chores were also mentioned as other vulnerabilities that children and adolescents faced during drought. The findings also noted an inter-linkage between female genital mutilation (FGM), child marriage, and teenage pregnancy across all communities under study. The difficulties occasioned by drought forced many families in ASAL counties to prepare their girls for marriage through the practice of FGM. Despite the high occurrences of sexual violence against children, child marriage, teenage pregnancy, and neglect, the child protection services available for affected children were low. The study recommended strengthening child protection structures at the community level by building the recruitment and capacity of child protection volunteers; sensitizing both parents and children to knowing the proper reporting channels in case of child protection issues; and strengthening the engagement of grassroots organizations, community-based groups, and local-level networks to prevent and respond to child protection concerns.

Save the Children Kenya (2023) looked into the impact of the ongoing drought on education. According to the 2023 report, more than 2 million children did not attend their third term classes due to drought in the country with an estimated 3.5 million not reporting back in January 2023, due to hunger crisis. The drought affected 17 counties which affected 52% of learning institutions. The shortage of water in schools, lack of school meals, lack of teachers, dilapidated infrastructure and resource-based conflicts are cited as reasons for learners dropping out. This was also in line with National Drought Management Authority (NDMA, 2022) report which indicated that about 4.3 million people were in need of emergency food assistance in Kenya. The NDMA report stated that over 942,000 cases of malnutrition have been reported in children aged between six and 59 months, while 134,000 cases of pregnant and lactating women are acutely malnourished and in need of treatment.

Bauer and Mburu (2023) studied the effects of drought on child health in Marsabit District, Northern Kenya. The study used five years of panel data (2009–2013) for Northern Kenya's Marsabit district to analyze the levels and extent of malnutrition among children aged five and under in that area. The researchers measured drought based on the standardized normalized difference vegetation index (NDVI) and assessed its effect on child health using mid-upper arm circumference (MUAC). The results showed that approximately 20 percent of the children in the study area were malnourished and a one standard deviation increase in NDVI z-score decreases the probability of child malnourishment by 12–16 percent. These findings suggested that remote sensing data can be usefully applied to develop and evaluate new interventions to reduce drought effects on child malnutrition, including better coping strategies and improved targeting of food aid.

RESEARCH METHODOLOGY

The study adopted a convergent parallel mixed-methods research design, combining quantitative and qualitative approaches to obtain a comprehensive understanding of the effects of climate change on children's rights in Igembe North Sub-County. Quantitative data were collected through household questionnaires, while qualitative data were obtained through semi-structured interviews with key informants and focus group discussions (FGDs) with children. The study targeted 38,871 households, 60 primary schools, six NGO coordinators, 10 chiefs, and 12 religious leaders. Using Yamane's formula at a 5% level of precision, a sample of 395 household respondents was obtained and proportionately distributed across the five wards. Simple random sampling was used to select household respondents, while purposive and nomination sampling techniques were used to select schools,

children, NGO coordinators, government representatives, chiefs, and religious leaders. Data were collected using structured questionnaires, semi-structured interview schedules, and FGD guides. The household questionnaire to assess drought, on children's rights, measured using a five-point Likert scale. Interviews lasting approximately 45–60 minutes explored stakeholders' experiences regarding the effects of climate change on children's health, education, food security, and institutional responses. FGDs involved groups of 10 children aged 12–16 years and explored their perceptions and experiences concerning climate change and children's rights. The validity of the instruments was established through expert review, face validity, and construct validity. Data collection was undertaken after obtaining authorization from the Catholic University of Eastern Africa, NACOSTI, the County Director of Education, the County Commissioner, schools, villages, and relevant NGOs. Quantitative data were edited, coded, entered into SPSS, and analyzed using frequencies, percentages, means, standard deviations and ANOVA. Qualitative data were analyzed using thematic, content, and narrative analysis to identify patterns, recurring ideas, and lived experiences concerning climate change and children's rights. Ethical considerations included informed consent, confidentiality, voluntary participation, privacy, protection from harm, and respect for children's dignity and rights. For children, consent from parents or guardians and assent from the children were obtained. Overall, the methodology integrated quantitative evidence with qualitative experiences to provide a broader understanding of how climate-related hazards affect the realization of children's rights in Igembe North Sub-County.

FINDINGS OF THE STUDY

EFFECT OF DROUGHT ON CHILDREN'S RIGHTS

This section presents the findings on the effects of drought on children's rights based on responses from 389 participants. The analysis focuses on key dimensions of child well-being, including health, psychological stability, access to education, and access to basic needs. A five-point Likert scale was used to measure the frequency of drought-related experiences, where 1 represents *Never* and 5 represents *Always*. The distribution of responses across categories, together with computed mean scores, provides an empirical basis for assessing the prevalence and intensity of drought impacts on children. Higher mean values indicate more frequent occurrence of the stated conditions, thereby reflecting greater levels of vulnerability and rights deprivation among affected children. The results offer quantitative evidence for understanding how prolonged drought conditions shape children lived realities and undermine their fundamental rights.

Table 1: Effect of Drought on Children's Rights

Statement	1 f(%)	2 f(%)	3 f(%)	4 f(%)	5 f(%)	Mean
My children have experienced malnutrition due to drought.	0 (0.0)	11 (2.8)	20 (5.1)	70 (18.0)	286 (73.5)	**4.62**
Drought has contributed to dehydration and respiratory issues to	0 (0.0)	11 (2.8)	28 (7.2)	60 (15.4)	290 (74.6)	**4.62**
My children experience anxiety due to food and water scarcity	0 (0.0)	0 (0.0)	22 (5.7)	94 (24.2)	270 (69.4)	**4.64**
Drought has disrupted my children education	0 (0.0)	9 (2.3)	85 (21.9)	69 (17.7)	226 (58.1)	**4.32**
Drought has caused reduced school hours affecting my children rights to education	2 (0.5)	18 (4.6)	77 (19.8)	50 (12.9)	242 (62.2)	**4.32**
My children have been forced to skip school to look for food and water	7 (1.8)	12 (3.1)	45 (11.6)	45 (11.6)	280 (72.0)	**4.49**
My children often skip school due to trekking long distance to fetch water attributed to drought	2 (0.5)	15 (3.9)	54 (13.9)	50 (12.9)	262 (67.4)	**4.42**
Drought has limited access to basic needs such as food, clean water and housing	5 (1.3)	9 (2.3)	23 (5.9)	59 (15.2)	293 (75.3)	**4.61**

Source: Survey Data, 2026

The findings on the effects of drought on children's rights reveal that prolonged dry conditions have a profound and frequent impact on multiple aspects of children's well-being. The study employed a five-point frequency scale, where 1 corresponds to "Never" and 5 to "Always," with a valid sample of 389 respondents for all items. Regarding children's health, the data show that malnutrition is a pervasive consequence of drought. Specifically, 286 respondents (73.5%) reported that their children always experience malnutrition during drought, 70 (18.0%) reported often, 20 (5.1%) sometimes, 11 (2.8%) rarely, and none reported never, yielding a high mean score of 4.62.

Similarly, drought was reported to contribute to dehydration and respiratory issues, with 290 respondents (74.6%) always, 60 (15.4%) often, 28 (7.2%) sometimes, 11 (2.8%) rarely, and none never experiencing these outcomes, producing a mean of 4.62.

These findings indicate that children's right to health is severely compromised, as drought frequently limits access to sufficient nutrition, safe water, and basic medical care, exposing children to both immediate and long-term health risks.

The psychosocial impact of drought is also notable. A majority of respondents indicated that their children frequently experience anxiety due to food and water scarcity, with 270 (69.4%) always, 94 (24.2%) often, and 22 (5.7%) sometimes reporting such stress, resulting in the highest mean score of 4.64. This demonstrates that the right to protection and mental well-being is regularly violated under drought conditions, as children face persistent uncertainty and insecurity in securing their basic needs.

Drought also affects children's access to education. A significant proportion of respondents indicated that their children's schooling is disrupted, with 226 (58.1%) always, 69 (17.7%) often, 85 (21.9%) sometimes, 9 (2.3%) rarely, and none never reporting disruptions (mean = 4.32). Reduced school hours further compromise education, with 242 (62.2%) always, 50 (12.9%) often, 77 (19.8%) sometimes, 18 (4.6%) rarely, and 2 (0.5%) never affected (mean = 4.32).

Moreover, children are frequently forced to skip school to look for food and water, with 280 respondents (72.0%) reporting always, 45 (11.6%) often, 45 (11.6%) sometimes, 12 (3.1%) rarely, and 7 (1.8%) never, resulting in a mean of 4.49. The burden of trekking long distances to fetch water also causes children to miss school regularly, with 262 (67.4%) always, 50 (12.9%) often, 54 (13.9%) sometimes, 15 (3.9%) rarely, and 2 (0.5%) never reporting this experience (mean = 4.42). Collectively, these findings indicate a frequent and pervasive violation of children's right to education, as drought forces children to forego learning opportunities to meet basic survival needs.

Finally, drought severely limits access to basic needs such as food, clean water, and adequate housing. Respondents reported that 293 (75.3%) always, 59 (15.2%) often, 23 (5.9%) sometimes, 9 (2.3%) rarely, and 5 (1.3%) never experienced limited access to essentials, producing a mean score of 4.61. This underscores that children's rights to survival, nutrition, and adequate living conditions are consistently threatened during drought periods.

The findings indicate that drought has a frequent, widespread, and multifaceted impact on children's rights. Children are regularly exposed to malnutrition, dehydration, and health risks, experience psychological stress and anxiety, and face disruptions in education due to time spent securing food and water. The high mean scores across all items, ranging from 4.32 to 4.64, coupled with large percentages of respondents reporting "often" or "always," highlight that these effects are not isolated incidents but persistent challenges in drought-affected communities. The findings corroborated with Dhongde and Spyrou (2023) study in Ethiopia which reported that drought reduced school enrollment probability by over 36% and increased food insecurity.

These results underscore the urgent need for interventions that integrate child-centered approaches into climate adaptation and disaster management. Such interventions should include nutrition and health support, psychosocial care, access to safe water, and strategies to maintain educational continuity during drought conditions, in order to safeguard children's rights and well-being in increasingly climate-vulnerable regions.

This underscores that children's right to health is severely compromised, as access to sufficient nutrition, safe water, and medical care is frequently limited, exposing them to both immediate and long-term health risks. The psychosocial impact of drought was similarly pronounced, with 69.4% of respondents reporting that their children always experience anxiety and stress due to scarcity of food and water, yielding a mean score of 4.64. This highlights consistent violations of children's right to protection and mental well-being under drought conditions. Education was also heavily affected, as children experienced frequent disruptions to schooling (mean = 4.32), reduced school hours (mean = 4.32), and missed school to secure food and water (mean = 4.49), demonstrating that survival needs frequently supersede learning and significantly impede educational attainment. Additionally, the burden of trekking long distances to fetch water further limited school attendance (mean = 4.42). Access to basic needs including food, clean water, and adequate housing was reported as consistently constrained (mean = 4.61), reinforcing the frequent violation of children's rights to survival and adequate living conditions.

The study also examined whether drought had a statistically significant effect on children's rights in Igembe North Sub-County. One way Analysis of Variance was analyzed and findings presented in Table 15**.**

Table 2: One-Way ANOVA on effect of Drought on children's rights

Source	SS	df	MS	F	p
Between Groups	4542.047	35	129.773	1.667	.012
Within Groups	27478.323	353	77.842		
Total	32020.370	388			

Source: Survey Data, 2026

The One-Way ANOVA results on the effect of drought on children's rights show a between-groups sum of squares (SS) of 4542.047 with 35 degrees of freedom and a within-groups SS of 27,478.323 with 353 degrees of freedom, giving a total SS of 32,020.370. The calculated F-value is 1.667 with a corresponding p-value of 0.012. Since the p-value is less than the conventional threshold of 0.05, the ANOVA indicates that there is a statistically significant difference between the groups in terms of how drought affects

children's rights. This means that the impact of drought on children's rights varies across the different groups or categories included in the analysis, suggesting that certain groups of children experience more severe consequences than others.

In practical terms, this finding aligns with the descriptive results showing that drought frequently compromises children's health, nutrition, education, access to basic needs, and psychological well-being. The significance of the ANOVA underscores that these effects are not uniform; children in households with fewer resources, in more remote areas, or those responsible for collecting water may be disproportionately affected. Overall, the One-Way ANOVA confirms that drought has a measurable and significant effect on children's rights, highlighting the importance of implementing targeted interventions, such as nutritional support programs, access to safe water, psychosocial services, and education continuity strategies, to protect the most vulnerable children in drought-affected communities.

The findings corroborated with a study by Epstein et al. (2020) which established that drought increases the prevalence of malnutrition, dehydration, and communicable diseases among children due to reduced access to food, clean water, and healthcare services. The findings were also consistent with Chidarikire and Saruchera (2024) study which showed that children in drought-affected areas experience heightened anxiety, stress, and emotional distress. The findings supported Njeru (2022) study which emphasized that children in Kenya are highly vulnerable to climate-related shocks.

The null hypothesis stated that drought has no statistically significant effect on children's rights. The hypothesis testing results provide strong evidence that drought significantly affects children's rights in Igembe North Sub-County. The One-Way ANOVA produced $F(35, 353) = 1.667$, $p = .012$. Since the p-value of .012 is below the 0.05 significance level, the null hypothesis that drought has no significant effect on children's rights was rejected, indicating that drought has a statistically significant effect on children's rights. This indicates that differences in the effects of drought across the groups were statistically significant and that children's rights are adversely affected under drought conditions.

The finding demonstrated that drought contributed to anxiety and stress due to water scarcity, disrupted schooling through reduction of school hours and missing school to search for food and water. Overall, the results confirmed that drought was a major climate-related threat to the realization of children's rights in Igembe North Sub-County. The study also established that drought was found to compromise children's rights through inadequate food, water and healthcare, educational disruption, increased household burdens, and psychological distress. The qualitative accounts reinforced these findings by illustrating how resource scarcity increases children's vulnerability and may force them to prioritize survival needs over schooling. The ANOVA result ($F = 1.667$, $p = .012$) was statistically significant, resulting in rejection of the null hypothesis and confirming that drought has a significant effect on children's rights. The finding is consistent with Epstein et al. (2020), who associated drought with malnutrition, dehydration, and communicable diseases among children, Chidarikire and Saruchera (2024), who reported increased anxiety and emotional distress, and Njeru et al (2022), who emphasized children's vulnerability to climate-related shocks in Kenya.

A teacher said

> *"Prolonged droughts and rising temperatures are the most occurring climate changes in Igembe North Sub county. These effects disrupt both livelihoods and children's education, health and psychological well-being. The climate variability has led to crop failures, water scarcity, and damage to homes, increasing vulnerability among children.*

With regard to children's health, the study reveals that malnutrition, dehydration, and respiratory illnesses are consistently experienced during drought periods, with a mean score of 4.62. This suggests a severe and ongoing violation of children's right to health due to limited access to food, clean water, and healthcare services. These findings are consistent with the study by Epstein, Benmarhnia, and Weiser (2020), which established a strong relationship between reduced rainfall and increased incidence of childhood illnesses such as diarrhea, cough, and fever.

A teacher said,

> *"During the long dry spells, I have seen children coming to school hungry, and some faint in class due to lack of food. Malnutrition is particularly severe in households with multiple children and minimal income.*

Similarly, a report by UNICEF (2021) affirms that drought exacerbates food insecurity, weakens immune systems, and increases vulnerability to disease among children. The current study extends this body of knowledge by demonstrating that such health challenges are experienced frequently at the household level, highlighting the chronic nature of these risks rather than their occurrence as isolated events.

One NGO representative stated,

> *"Children often fall sick due to unsafe water; diarrhea and other waterborne diseases increase during extreme weather events. Water scarcity forces children to spend hours fetching water affecting school attendance"*

The psychosocial impacts identified in the study further corroborate existing research. With the highest mean score of 4.64, the findings indicate that children frequently experience anxiety and stress due to the scarcity of food and water. This reflects a consistent violation of children's right to protection and mental well-being. These results align with Chidarikire and Saruchera (2024), who documented increased levels of anxiety, depression, and trauma among children in drought-affected settings.

A child said:

> *"Drought caused crops in our farm to dry up before maturity, leading to little harvest. As a result, we often go to school without food and struggle to concentrate in class due to hunger."*

Another child further said;

> *"During the dry season my parents struggle to find food and water which make me fear that we might not have enough resources to survive"*

UNICEF (2021) similarly reported that environmental stressors such as drought heighten children's vulnerability to insecurity, exploitation, and emotional distress. The narratives provided by children in the study deepen this understanding by illustrating how fear, uncertainty, and physical exhaustion shape their daily experiences, thereby providing qualitative evidence that complements and strengthens existing quantitative findings. In relation to education, the study establishes that drought significantly disrupts children's learning, as evidenced by mean scores ranging from 4.32 to 4.49 across indicators such as school absenteeism, reduced instructional time, and competing household responsibilities. These findings are in agreement with Zhou and Gong (2018), who found that drought in Sub-Saharan Africa often leads to school closures and increased reliance on children for household labor.

A child said that

> *During long periods without rain, water becomes very scarce in our home. This forces us to wake up very early and walk long distances to fetch water. This often makes us get late for school and very tired during lessons.*

Nubler et al. (2021) further demonstrated that rainfall shocks negatively affect educational attainment and cognitive development, particularly among vulnerable populations. The present study adds depth to this literature by identifying specific pathways through which education is disrupted, including the need for children to fetch water, care for livestock, and cope with physically uncomfortable learning environments. This highlights that educational disruption is both structural and experiential, arising from the direct and indirect consequences of drought.

A child narrated that:

> *Sometimes we are required to stay at home to help fetch water or take care of livestock. This leads to missing lessons and falling behind academically compared to our classmates. The repeated droughts make me worried about my education participation.*

The study also reveals that drought severely limits access to basic needs such as food, clean water, and adequate housing, with a mean score of 4.61. This finding underscores the consistent violation of children's rights to survival and an adequate standard of living. It aligns with UNICEF (2020) reports, which emphasize that drought undermines household livelihoods and exacerbates poverty, thereby restricting access to essential resources. Similarly, Koech (2023) found that climate-related hazards disrupt economic activities, leading to food insecurity and adverse health outcomes for children. The current study reinforces these conclusions by providing detailed accounts of how crop failure, water scarcity, and household stress directly affect children's daily lives, demonstrating the interconnected nature of deprivation across multiple domains.

A respondent said reference no 001/2026 said

> *"Igembe North Sub county has been experiencing prolonged drought and erratic rainfall patterns which has affected crop production and pastures. This has resulted in children going to school without food leading to malnutrition and stunted growth. Majority of other children do not go to school during the drought because they have to find coping strategies. With most rivers and bore holes dried up. making water a scare resource."*

Furthermore, the findings are consistent with context-specific research such as Njeru et al (2022), which identified children as one of the most vulnerable groups to climate change impacts in Kenya. The emphasis on local experiences in the present study highlights how environmental challenges interact with socio-economic conditions to intensify vulnerability. In addition, Mfon (2024) underscores the importance of integrating climate change education into school curricula to enhance children's resilience and awareness, which supports the study's recommendation for strategies that ensure educational continuity alongside humanitarian interventions.

An NGO Official said

> *Igembe North Sub County is witnessing snowballing cases of malnutrition linked to climate-induced food shortages. During droughts and floods, children sometimes miss meals or rely on limited and nutritionally inadequate food. During crises we offer an educational kit to children from vulnerable families which contains books, pens and a bag. Our NGO also support school feeding programs in public primary schools as a way of supporting children with aim of improving school attendance and completion"*

Overall, these studies collectively underscore that drought and climate variability adversely affect multiple dimensions of children's rights, including health, nutrition, education, protection, and psychosocial well-being. The research emphasizes that children in drought-prone regions, particularly in East and Sub-Saharan Africa, face compounded risks from environmental, economic, and social stressors. These findings highlight the urgent need for context-specific, rights-based interventions, encompassing resilient health and education systems, psychosocial support, and community-level adaptation strategies to safeguard children's rights amid climate-related hazards.

CONCLUSIONS

The study concludes that drought significantly undermines children's rights in Igembe North Sub-County, particularly their rights to health, education, survival, adequate living conditions, protection, and psychosocial wellbeing. The quantitative findings, qualitative accounts, and hypothesis-testing results consistently demonstrate that drought creates interconnected forms of deprivation that intensify children's vulnerability. The statistically significant ANOVA result ($F = 1.667$, $p = .012$) led to rejection of the null hypothesis, confirming that drought has a significant effect on children's rights.

The findings demonstrate that drought exposes children to malnutrition, dehydration, illness, and limited access to healthcare, thereby compromising their right to health. The high reported occurrence of anxiety and stress associated with food and water scarcity further demonstrated negative consequences for children's psychological wellbeing and protection. Drought also disrupts the right to education by increasing absenteeism, reducing learning time, and requiring children to undertake household responsibilities such as fetching water and caring for livestock. In addition, persistent shortages of food, clean water, and adequate housing undermine children's rights to survival and an adequate standard of living.

RECOMMENDATIONS

The County Government of Meru, National Drought Management Authority, humanitarian organizations, and community stakeholders should strengthen drought-resilience interventions targeting children and vulnerable households. These should include reliable provision of safe water, food and nutrition assistance, accessible healthcare, and psychosocial support during prolonged drought periods. Households should be supported to adopt climate-smart agriculture and livelihood diversification to reduce dependence on rain-fed agriculture. Schools should establish mechanisms for educational continuity, including school feeding programs and flexible learning arrangements, to reduce absenteeism arising from food and water shortages and household responsibilities. Particular attention should be given to preventing children from being withdrawn from school to fetch water, perform household labour, or engage in other survival activities.

POLICY RECOMMENDATION

The study recommends that children's rights should be explicitly integrated into county and national climate-change adaptation and disaster-management policies. The study also recommended that climate adaptation programs should adopt a child-centered and rights-based approach that prioritizes children's survival, health, education, protection, development, and psychosocial wellbeing. The County Government of Meru should establish coordinated mechanisms involving schools, health facilities, communities, child-protection agencies, religious organizations, NGOs, and disaster-management institutions to ensure that climate-related interventions address both immediate needs and long-term resilience. The formation of environmental and child-rights clubs in schools should also be encouraged to enhance children's awareness, participation, preparedness, and capacity to respond to climate-related risks.

REFERENCES

1) Affoh, R., Zheng, H., Dangui, K., & Dissani, B. M. (2022). The Impact of Climate Variability and Change on Food Security in Sub-Saharan Africa: Perspective from Panel Data Analysis. Sustainability, 14(2), 759. https://doi.org/10.3390/su14020759
2) Al-Hammouri, A., Al-Billeh, T., & Derba, I. (2023). Mechanisms for Protecting Children's Rights from the Effects of Climate Change. Pakistan Journal of Criminology 15(4) 639-653.
3) Amorim-Maia, A. T., I. Anguelovski, E. Chu, and J. Connolly. 2022. Intersectional climate justice: A conceptual pathway for bridging adaptation planning, transformative action, and social equity. Urban Climate 41: 101053. 10.1016/j.uclim.2021.101053. [Google Scholar]
4) Araos, M. 2023. Democracy underwater: Public participation, technical expertise, and climate infrastructure planning in New York City. Theory and Society 52: 1–34. 10.1007/s11186-021-09459-9. [DOI] [PMC free article] [PubMed] [Google Scholar]
5) Bauer, J.M., & Mburu, S. (2023) Effects of drought on child health in Marsabit District, Northern Kenya. Econ Hum Biol. 24:74–9, doi:10.1016/j.ehb.2016.10.010
6) Baxi, U. (2016). Towards a climate change justice theory? Journal of Human Rights and the Environment, 7(1), 7–31. https://doi.org/10.4337/jhre.2016.01.01
7) Bezu, S. (2023). Droughts and children's education in Ethiopia. SSRN. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4547663
8) Björkman-Nyqvist, M., et al. (2025). Weather shocks, infant mortality, and adaptation: Experimental evidence from Uganda, Journal of Development Economics. 176 (ISSN 0304-3878) https://doi.org/10.1016/j.jdeveco.2025.103478.
9) Bourke, R. (2023). Children's rights and their evidence as a force for inclusion in uncertain times. Frontiers in Education, 8. https://doi.org/10.3389/feduc.2023.1027493

10) Checchi, F., AbuKoura, R., Kadiyala, S., Nyawo, M., & Maina, L. (2025). Predicting the burden of acute malnutrition in drought-prone regions of Kenya: a statistical analysis.medRxiv 2025.03.19.25324283; doi: https://doi.org/10.1101/2025.03.19.25324283
11) Chidarikire, M., & Saruchera, M. (2024). Exploring multifaceted impacts of El Niño driven drought on child-headed rural learners' well-being in drought-prone Chivi, Zimbabwe. Interdisciplinary Journal of Rural and Community Studies, 6, 1-13. https://doi.org/10.38140/ijrcs-2024.vol6.17
12) Cliffer, I. R, Naumova, E.N., Masters, A.W., Perumal, N., Garanet, F., & Rogers, B.L.(2024). Peak timing of slowest growth velocity among young children coincides with highest ambient temperatures in Burkina Faso: a longitudinal study. The American Journal of Clinical Nutrition, 119 (2) 393-405, https://doi.org/10.1016/j.ajcnut.2023.09.021.
13) Climate Justice Alliance (CJA). (2022). What is climate justice? https://climatejusticealliance.org/what-is-climate-justice/
14) Dhongde, S., & Spyrou, I. M. (2023). Impact of Drought on Children's Educational Outcomes. Available at SSRN, 4547663.
15) Epstein, A., Benmarhnia, T., & Weiser, S. D. (2020). Drought and illness among young children in Uganda, 2009–2012. The American journal of tropical medicine and hygiene, 102(3), 644.
16) Erdem Türkelli, G., Vandenhole, W., & Wouters, J. (2021). Introducing New Frontiers in Children's Rights: From Protection to Empowerment. Nordic Journal of Human Rights, 39(2), 103–112. https://doi.org/10.1080/18918131.2021.2001161
17) Golo, H.K., Ibrahim, S., Bolanle T., & Erinosho, M. (2025). Impacts of climate change on children's rights to food and health in coastal communities in Ghana. Environmental Development 54 (ISSN 2211-4645) https://doi.org/10.1016/j.envdev.2025.101151.
18) Government of Kenya (GoK). (2020). Meru County Integrated Development Plan 2018–2022. Nairobi: Ministry of Devolution and Planning.
19) Hanna, R., & Oliva, P. (2016). Implications of climate change for children in developing countries. The Future of Children, 26(1), 115–132. https://doi.org/10.1353/foc.2016.0004
20) Hassan, F. (2024). World Vision Somalia Emergency Reports.
21) Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R. E., Mayall, E. E., ... & van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. The
22) Human Rights Watch. (2024). Child Marriage and Climate Crisis in South Asia.
23) Intergovernmental Panel on Climate Change (IPCC). (2023). Climate Change 2023: Synthesis Report. Geneva: IPCC.
24) IPCC. (2022). Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA.
25) Kaguara, P. (2023). An Assessment of the Effects of Climate Variability and Change on Sustainable Livelihoods in Turkana County, Kenya. http://erepository.uonbi.ac.ke/handle/11295/164565
26) Kaua, C.G., Mutheu, J.M., Thenya, T. (2019). Contextualizing Climate Variability in Tharaka South Subcounty, Tharaka Nithi County, Kenya. IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT) 13 (12) 67-85 doi: 10.9790/2402-1312016785 www.iosrjournals.org 67 | Page
27) KNBS. (2019). Kenya population and housing census Volume 1: Population by County and Sub-County. In 2019 Kenya population and housing census: Vol. I (Issue November). https://www.knbs.or.ke/?wpdmpro=2019-kenya-population-and-housing-census-volume-i-population-by-county-and-sub-county
28) Lusambili, A., Kovats, S., Nakstad, B. et al. (2024). Too hot to thrive: a qualitative inquiry of community perspectives on the effect of high ambient temperature on postpartum women and neonates in Kilifi, Kenya. BMC Pediatr 24, 36. https://doi.org/10.1186/s12887-023-04517-w
29) Mackey, J. (2023). Somalia Flood Response and Child Welfare.
30) Mburu, S., Wali, I., Mukisa, S., Sironga, N., & Adan, H. (2024). Effects of Drought on Child Protection in Hard-to-Reach Communities in Kenya. Social Sciences, 13(7), 375. https://doi.org/10.3390/socsci13070375
31) McMichael, A. J., Woodruff, R. E., & Hales, S. (2004). Climate change and human health: Present and future risks. The Lancet, 367(9513), 859–869. https://doi.org/10.1016/S0140-6736(06)68079-3
32) Meru County Participatory Climate Risk Assessment (2023). https://flocca.meru.go.ke/participatory-climate-risk-assessment-pcra
33) Mugo, B. (2024). Save the Children Kenya Annual Report.
34) Murunga, D. (2024). World Vision Somalia Field Operations Summary.
35) NDMA (2022). Drought deteriorates in Kenya and the Horn of Africa. Drought Resilience Newsletter _May-June 2022 https://ndma.go.ke/
36) NDMA (2024). National Drought Early Warning Bulletin March 2024 https://ndma.go.ke/

37) Njeru, M. W., Arasa, J. N., Musau, J. N., & Kihara, M. (2022). The effects of climate change on the mental health of smallholder crop farmers in Embu and Meru counties of Kenya. African Journal of Climate Change and Resource Sustainability, 1(1), 1-12.
38) Ochieng, J. A. (2024). Environmental degradation and inter-ethnic conflict in Meru County, Kenya (Doctoral dissertation, Doctoral Dissertation, Kenyatta University).
39) Odero, N. A & Mahiri, I (2022). The Complacency of Flood Victims, Socio Economic Factors, and Effects and Vulnerabilities of Floods in Lower Kano Plains, Kisumu County, Kenya. International Journal of Disaster Risk Management, 4(2), 59-77.
40) OHCHR (2017) Analytical Study on Child Rights and Climate Change
41) Okereke, C. (2010). Climate justice and the international regime. Wiley Interdisciplinary Reviews: Climate Change, 1(3), 462–474. https://doi.org/10.1002/wcc.52
42) Oppenheimer, M., & Anttila-Hughes, J. (2016). Climate change and social stress: Implications for security analysis. Journal of Peace Research, 53(1), 3–17.
43) Park, R. J., Behrer, A. P., & Goodman, J. (2021). Learning is inhibited by heat exposure, both internationally and within the United States. Nature Human Behaviour, 5, 19–27. https://doi.org/10.1038/s41562-020-00959-9
44) Parsons, M., Godden, N. J., Henrique, K. P., Tschakert, P., Gonda, N., Atkins, E., Steen, K., & Crease, R. P. (2025). Participatory approaches to climate adaptation, resilience, and mitigation: A systematic review. Ambio, 54(12), 2005–2020. https://doi.org/10.1007/s13280-025-02202-z
45) Patel, S. K., Mathew, B., Nanda, A., Mohanty, B., & Saggurti, N. (2020). Voices of rural people: Community-level assessment of effects and resilience to natural disasters in Odisha, India. International Journal of Population Studies, 6(1), 3-15.Pellow, D. N. (2007). Resisting Global Toxics: Transnational Movements for Environmental Justice. MIT Press.
46) Plan International. (2015). Weathering the Storm: Adolescent Girls and Climate Change. https://plan-international.org/publications/weathering-storm
47) Proulx K, Daelmans B, Baltag V, Banati P. (2024). Climate change impacts on child and adolescent health and wellbeing: A narrative review. Journal of Global Health, 14, 04061.
48) Quennerstedt, A., Robinson, C., & I'Anson, J. (2018). The UNCRC: The Voice of Global Consensus on Children's Rights? Nordic Journal of Human Rights, 36(1), 38–54. https://doi.org/10.1080/18918131.2018.1453589
49) Republic Act No. 10821: An Act Mandating the Provision of Emergency Relief and Protection for Children Before, During, and After Disasters and Other Emergency Situations. (2016). Official Gazette of the Republic of the Philippines.Robinson, M. (2018). Climate justice: Hope, resilience, and the fight for a sustainable future. Bloomsbury Publishing.
50) Sanson, A., Van Hoorn, J., & Burke, S. E. L. (2018). Responding to the impacts of climate change on children. In Handbook of Children and Climate Change. Springer.
51) Save the Children. (2021). Born into the Climate Crisis: Why we must act now to secure children's rights. https://www.savethechildren.org.uk
52) Save the Children. (2023). Save the Children's Global Environmental Sustainability Report 2023 https://resourcecentre.savethechildren.net/document/save-the-childrens-global-environmental-sustainability-report-2023/
53) Save the Children. (2024). Kenya floods: damaged schools mean over 15,000 children will be unable to return to learning next week https://www.savethechildren.net/news
54) Shah, M., & Steinberg, B. M. (2017). Drought of opportunities: Contemporaneous and long-term impacts of rainfall shocks on human capital. Journal of Political Economy, 125(2), 527–561. doi: 10.1086/690828.
55) Shah, M.M., Krystosik, A.R., Ndenga, B.A. et al. (2019). Malaria smear positivity among Kenyan children peaks at intermediate temperatures as predicted by ecological models. Parasites Vectors 12 (288). https://doi.org/10.1186/s13071-019-3547-z
56) Sheffield, P. E., & Landrigan, P. J. (2016). Global climate change and children's health: Threats and strategies for prevention. Environmental Health Perspectives, 119(3), 291–298. https://doi.org/10.1289/ehp.1002233
57) SOS Children's Villages. (2025). Climate crisis driving child-family separation: More action needed to prevent further harm
58) The Guardian. (2024, November 7). Severe drought leaves nearly half a million children in Amazon at risk.
59) Toussaint, L., Kamble, S., Marschall, J., & Duggi, D. (2016). The role of religiousness in stress, coping, and health among poor women in India. Journal of Health Psychology, 21(6), 1189–1200. https://doi.org/10.1177/1359105314545901
60) UNEP. (2023). State of Climate Adaptation in Africa Report.
61) UNFCCC. (1992). United Nations Framework Convention on Climate Change. https://unfccc.int/resource/docs/convkp/conveng.pdf
62) UNFCCC. (2024). UN Climate Change Quarterly Update: Q4 2024. UN Climate Change Quarterly Update: Q4 2024 | UNFCCC

63) UNICEF UK (2017), No Place to Call Home: Protecting Children's Rights when the Changing Climate forces Children to Flee.
64) UNICEF. (2020). The Impact of Flooding on Children: A Comprehensive Overview. UNICEF.
65) UNICEF. (2021). The climate crisis is a child rights crisis: Introducing the Children's Climate Risk Index. https://www.unicef.org/reports/climate-crisis-child-rights-crisis
66) UNICEF. (2021). The Impact of Drought on Children: Protecting Children in Times of Crisis. UNICEF.
67) UNICEF. (2022). Humanitarian Action for Children – Eastern and Southern Africa Regional Appeal. https://www.unicef.org/appeals/eastern-and-southern-africa
68) UNICEF. (2022). The Impact of Climate Change on Children: A Global Perspective.
69) UNICEF. (2023). The climate changed child: Climate crisis and children's rights. https://www.unicef.org/media/147931/file/Theclimage-changedchild-ReportinEnglish.pdf
70) UNICEF. (2023). The climate-changed child: A Children's Climate Risk Index supplement. https://www.unicef.org/reports/climate-changed-child
71) UNICEF. (2024). Children and climate change: Impact on education. [UNICEF Press Release].
72) UNICEF. (2024). Children Displaced in a Changing Climate: Preparing for a Future Already Underway. https://www.unicef.org
73) UNICEF. (2024). Climate Change and Children: A Global Overview. New York: United Nations Children's Fund.
74) Wario, H. (2024). Impact of climate change-induced drought on child protection in pastoral communities. Social Sciences, 13(7), 375. https://www.mdpi.com/2076-0760/13/7/375
75) Watts, N., Adger, W. N., Agnolucci, P., Blackstock, J., Byass, P., Cai, W., ... & Costello, A. (2017). Health and climate change: Policy responses to protect public health. The Lancet, 386(10006), 1861-1914. https://doi.org/10.1016/S0140-6736(15)60854-6
76) Watts, N., Amann, M., Arnell, N., Ayeb-Karlsson, S., Belesova, K., Berry, H., ... & Costello, A. (2018). The 2018 report of the Lancet Countdown on health and climate change: shaping the health of nations for centuries to come. The Lancet, 392(10163), 2479–2514. https://doi.org/10.1016/S0140-6736(18)32594-7
77) Weale, S. (2017). Headteacher hails pupils who took exams whilst Grenfell Tower burned. The Guardian. Retrieved from https://www.theguardian.com
78) WHO. (2022). Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s. Geneva: World Health Organization.
79) WHO. (2024). Climate Change and Child Health: Protecting the Next Generation. Geneva: World Health Organization.
80) World Bank. (2023). Shock Waves: Managing the Impacts of Climate Change on Poverty.
81) Yun, K., Lurie, N., & Hyde, P. S. (2010). Moving mental health into the disaster-preparedness spotlight. New England Journal of Medicine, 363(13), 1193-1195. https://doi.org/10.1056/NEJMp1008304
82) Zhou, W., & Gong, L. (2018). The Impact of Drought on Education in Sub-Saharan Africa: Evidence from Kenya and Somalia. Environmental Science & Policy, 86, 46-54..

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