

INFORMATION ACCESS BARRIERS AND SOCIOECONOMIC DEVELOPMENT AMONG MARGINALISED PASTORALIST COMMUNITIES IN TURKANA NORTH SUB-COUNTY, KENYA

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Abstract : Information is a critical component for making informed decisions and sustainable development. However, marginalised and disadvantaged communities such as the pastoralist communities in Turkana North Sub-County, Kenya, face serious information poverty, resulting from a lack of access to timely, relevant, and practical information. This study, therefore, using a qualitative phenomenological research approach, explored the information access barriers and their impact on socioeconomic development. The study purposively sampled the 21 most marginalised sublocations in Turkana North Sub-County. Employing the census sample method, 21 sub-chiefs from the sublocation were sampled for the study. Semi-structured interviews were conducted with the subchiefs, and the data were thematically analysed. The study revealed that illiteracy, language, underdeveloped infrastructure, poor mobile networks, cultural practices, and information systems that are out of sync with the nomadic lifestyle were the greatest barriers to effective information access. Consequently, the communities were locked and missed out of socioeconomic empowering opportunities in health and education services, market and trade participation, jobs and business opportunities, political and governance forums, and climate and weather early warning information, reinforcing the cycle of poverty and marginalisation. There is a need for information dissemination strategies and policies that are context-sensitive, inclusive and linguistically appropriate. Addressing the barriers is critical in the realisation of inclusive and sustainable development in marginalised areas.

Keywords:- Information Access; Socioeconomic Development; Marginalised Communities; Pastoralists; Turkana North Sub-County; Information Poverty; Digital Exclusion; Qualitative Research; Kenya; Arid and Semi-Arid Lands (ASALs).

1.0 Introduction

Information is critical for socioeconomic progress. Current, pertinent, and practical information is central to informed decisions on important areas of life. Marginalised pastoralist communities that encounter systemic socioeconomic development require information on pastoralism, agriculture, health, education, and climate disaster resilience (UNESCO, 2018). Communities in arid and semi-arid areas (ASALs), such as Turkana

County in Kenya, grapple with deep information infrastructural and systems barriers that severely restrict their access to vital information resources (Chamunorwa et al., 2020). Pastoralist communities in Turkana County, Kenya, embody marginalised populations occasioned by geographical isolation, infrastructural deficiencies, and sociocultural exclusion. Information poverty and digital exclusion are entrenched by inadequate connectivity, illiteracy, lack of digital skills, poverty, and language discrepancies (Luchner, 2020). Hampered information access thrusts the community into socioeconomic exclusion and exacerbates marginalisation. This study, therefore, sought to understand the multifaceted information access barriers and their effects on socioeconomic development among the marginalised communities by exploring the experience of the marginalised Turkana pastoralists in Turkana North Sub-County, Kenya.

2.0 Objectives:

1. To identify information access barriers faced by marginalised pastoralist communities in Turkana North Sub-County.
2. To analyse how information access barriers impede socioeconomic development among marginalised pastoralist communities in Turkana North Sub-County.

3.0 Literature Review

3.1 Information Access Barriers: Significant and interconnected information access barriers affect marginalised pastoralist communities globally. The barriers lock the communities out of vital information required for survival and development.

Mobile and internet connectivity are a necessity in the modern world. However, high costs and low returns have hampered the deployment of the mobile and internet infrastructure in remote and sparsely populated regions, such as areas inhabited by pastoralists (GSMA, 2020; Kenya Communications Authority (CAK), 2022; World Bank Group, 2016).

The language in which information is conveyed is a major barrier to information access among the marginalised. National languages like English, Kiswahili, French, or Arabic are largely used to communicate information. The marginalised, majority of whom are illiterate, are therefore at a disadvantage and disfranchised because they fail to interact with vital information about government services, education, health, trade, agriculture, and climate, which has a high socioeconomic significance (Luchner, 2020; UNESCO, 2018).

The nature of the pastoralists' lifestyle is not taken into consideration by policymakers and information dissemination players. Failure to acknowledge the transhumance and nomadic mobility patterns, social organisation, cultural contexts and indigenous knowledge systems that define the pastoralists by policymakers renders their policies invisible to the pastoralists.

Static communication channels, such as written notices or fixed-location offices, are incompatible with the pastoralists' lifestyles (Krätli & Schareika, 2010; Nori & Davies, 2007)

3.2 Information Access Barriers Impediment to Socioeconomic Development: Barriers to information access adversely affect the socioeconomic progress of the marginalised pastoralists. Information asymmetry is pronounced among the marginalised pastoralists induced by finite access to current, credible market information on livestock prices, demand trends, buyer location, transport costs and credit opportunities (Little et al., 2008; McPeak et al., 2011). Consequently, middlemen exploit the pastoralists. Besides, the pastoralists miss lucrative markets, have low bargaining power, constrained income diversification, and are trapped in a vicious circle of poverty (Johnsen et al., 2019).

Relevant information on weather forecasts, such as droughts, floods, early warning for disasters, rangeland conditions, and livestock and human disease outbreaks, is important for the pastoralist communities. Lack of such type of information reduces the community's adaptive capacity to climate change and environmental shocks (Catley et al., 2013; Egeru, 2016; Zinsstag et al., 2011). Absence of access to this kind of information engenders livestock losses, food insecurity, displacement, increased vulnerability and poverty (Otieno et al., 2024).

The pastoralists' lack of essential information on vaccination campaigns, disease prevention, mental health programs, and clinic locations greatly affects their health. Similarly, not having information on the availability of mobile schools, scholarships, bursaries, and vocational training impairs their education standards (Chamunorwa et al., 2020; Dyer, 2014; Schelling et al., 2005). The pastoralists, therefore, suffer from poor

health outcomes, lower educational levels, insufficient human capital development, and intergenerational poverty.

Information poverty among the pastoralists exposes them to social exclusion and political marginalisation. The pastoralists' voices are muted in policy formulation arenas due to difficulties in accessing information on human rights, entitlements, social protection programs, and overall government policies (Mkutu, 2008). This aggravates marginalisation and silences their voices in governance.

4.0 Methodology

A qualitative phenomenological approach was used to conduct the research. The approach was preferred to deeply appreciate the complex barriers of information access influencing socioeconomic development in Turkana North Sub-County. The approach helped to unravel context-specific barriers presented by lived experiences and subjective realities. Turkana North Sub-County, Kenya, constituted the site of the study, and 21 sub-locations were purposefully sampled. The study site is arid, with low population density, poorly developed infrastructure, road networks, and severe poverty levels (Kenya National Bureau of Statistics (KNBS), 2019). The study site provided a representative microcosm of pastoralists' lives in marginalised areas. A census sampling method was used to include all 21 sub-chiefs from the sub-locations. As key informants, the sub-chiefs were in a unique position to provide a macro-understanding of barriers that individual community members might not fully grasp, owing to their administrative role that encompasses the dissemination of government information and coordinating development.

Semi-structured interviews were used for data collection, with each interview lasting 45-60 minutes, conducted in either Kiswahili, Turkana, or English, depending on the respondent's preference, guaranteeing linguistic comfort and cultural sensitivity. Informed consent was sought before audio-recording the interviews. The analysis was guided by Braun & Clarke, (2006) six-step process for analysing qualitative data. NVivo 14 software was utilised for data management and coding. Research ethics were observed by obtaining written informed consent, use of pseudonyms to ensure confidentiality and anonymity, seeking permission from the authorities, and respecting the cultural context of the participants.

5.0 Results

5.1 Barriers to Information Access : The study sought to establish barriers to information access among the marginalised communities in Turkana North Sub-County. The results paint a picture of multiple interconnected barriers hindering effective and inclusive information flow.

Geographical isolation emerged as one of the barriers. The respondents pointed out that the area is remote, has a poor road network, and the population is sparse, affecting information access, especially during the rainy season. One respondent, SC2, remarked: "When it rains, the roads are washed away, and travelling from one area to another to pass important information becomes impossible"

Another notable barrier was the communication infrastructure. Some areas lacked mobile phone network coverage, and where there was coverage, it was either sporadic or weak. Lack of a source of electric power, either grid or solar, presented a challenge for charging phones and using of radio or Television. The battery-powered radio, purchasing batteries, presented an additional obstacle. SC5 said: "We Walk long distances looking for phone signals or climbing on trees ". Respondent SC12 remarked: "Even if we have radios and phones, powering them is a problem. We don't have electricity and buying batteries for radios is expensive"

Language and literacy emerged as an important barrier. The respondents mentioned that the government information is mostly in English or Swahili. The majority of the residents are illiterate and have difficulties comprehending information communicated in written or audio broadcasts. SC7 remarked: " The government information is communicated in the official language, English, or the national language, Swahili, and either in written or broadcast form via radio, but our people, most of them have not gone to school, and fail to understand the information".

A further significant barrier was the sociocultural exclusion perpetuated by gender roles. Women are restricted from attending baraza, information sharing forums, while youth and herders are rarely present when meetings

occur, because they are away with livestock. SC9 said: "In our culture, men are the head of the households, and women have to ask permission from them to do anything, and they are forbidden from attending meetings where men are, though there are some changes regarding this ". SC14 noted: " Herders, mostly of whom are youths, have to move with the livestock, searching for water and grass, and are unavailable during our barazas".

The administrators also mentioned personal limitations in disseminating information, such as a lack of transportation and high levels of insecurity. All in all, infrastructure and sociocultural barriers emerged as the most conspicuous barriers to information access.

5.2 Impact of information Access Barriers On Socioeconomic Development :The study also aimed at analysing the effect the information barriers had on the socioeconomic well-being of the marginalised pastoralists. The analysis indicated that the barriers led to missed opportunities, such as government scholarships and bursaries, job openings, tenders, and vaccination campaigns, among other important initiatives with socioeconomic impact. The pastoralists never got to know about these initiatives, or the information reached them past the deadline. SC4 reported, "Getting information in time is a major challenge. This means people will never get to know about important events and programs that would be of socioeconomic benefit to them". SC6 related to an episode, "I remember when we were forced to postpone vaccination because the herds were not informed on time, or they were not even aware, and so they moved with their livestock to a new location that we are not aware of ".

Essential services such as education and health remain underutilised because of the lack of information about the services. Important health service campaigns like children's vaccination and children's feeding programs might not be fully utilised because only a handful of pastoralists get to know of the events. SC11 remarked: "We always have a problem reaching enough residents with information about children's vaccination programs and also school feeding programs, and so these programs fail to benefit most of our people".

Preventable losses of livestock and lives occurred, particularly because of a lack of timely communication on livestock theft, flooding or disease outbreaks. SC17 reported that: " insecurity is rampant and natural calamities such as disease outbreaks, but we have an issue with getting this information on time, so we react when it is very late, when lives and livestock have been lost"

To cope with the information barriers and mitigate the socioeconomic impact, the administrators resorted to utilising the boda boda riders or religious leaders to pass important information or translate the information into the Turkana language. These measures, though helpful, are unsustainable.

The pastoralists are generally isolated and excluded from national socioeconomic development by information access barriers, as evidenced by the pronounced poverty and reduced resilience. Strategies that take cognisance of the uniqueness of the pastoralists' existences are required to address the information barriers and spur socioeconomic progress.

6.0 Discussion

6.1 Information Access Barriers :Inadequate and poorly developed infrastructure, such as mobile networks, electricity and internet connectivity, was identified by the study as a barrier to information access, in line with existing findings by **GSMA (2020) and Kenya Communications Authority (CAK) (2022)**. Weak signals necessitate walking long distances or ascending to high places or tree tops, or intermittently listening to the radio when batteries are available. The finding reinforces the selective investments strategy adopted by service providers based on perceived return on investment pegged on population density and spread (**World Bank Group, 2016**).

The government policy of communicating information in national and official languages affected the access to information by the majority of illiterate pastoralists. The findings support studies by **Luchner (2020)** and **UNESCO (2018)**, which established that the use of national and official languages for information dissemination disenfranchised the illiterate and those with limited education, perpetuating exclusion.

Static communication systems identified by **Krätli & Schareika (2010)** and **Nori & Davies (2007)** that are out of sync with the pastoralists' mobility patterns were also established as a barrier to information access. Failure of information communication delivery systems to consider the transhumant and dispersed nature of the pastoralists potentially prevents the community from accessing necessary information.

Sociocultural factors such as women and youth based culturally based gender roles were also mentioned as

barriers to information access. To try and blunt the sharp effects of the information barrier on socioeconomic the administrators employed creative but unsustainable strategies like the use of boda boda or translations.

The study has confirmed that information barriers are technological, infrastructural, linguistic, sociocultural and political. Government and information providers' policies and strategies are not responsive to the realities of pastoralists' lifestyles, worsening the information inequalities.

6.2 Effects of Information Barriers On Socioeconomic : The results established that information barriers translate to acute information poverty, adversely impacting socioeconomic development. The findings resonate with Otieno et al.'s (2024) study, which showed that the information poverty directly and indirectly affected livelihoods, health, education and governance.

Congruent with findings of studies by Little et al. (2008), the study confirmed that the middlemen take advantage of the lack of access to market information to exploit the pastoralists. Besides, missing economic opportunities resulting from a lack of access to information about markets, pricing, and credit options. As noted by Johnsen et al. (2019), chronic absences to access vital information perpetuates abysmal bargaining power, reduced income diversification, and entrenched poverty.

Barriers to information access exposed the pastoralists to environmental and climate vagaries associated with the absence or failure of early warning systems. As established by Egeru (2012), Catley et al. (2013), and Zinsstag et al. (2011), information gaps affect the pastoralists' adaptive capacity to climate shocks associated with livestock losses and displacements, aggravating food insecurity and poverty.

Health and education of the pastoralists are also negatively impacted by the information access barriers, as documented by Dyer (2014), Chamunorwa et al. (2020), and Schelling et al. (2005) in their studies. The results indicated that the pastoralists failed to benefit from initiatives such as vaccinations, training scholarships, and empowerment programs due to a lack of information about the initiatives. This implies that the marginalised pastoralists are excluded from the flow of development-oriented information.

In line with Mkutu's (2008) study, the findings highlighted the political and civic marginalisation caused by information access barriers. The voices of the pastoralists are muted in policy formulation forums because of their unawareness of their rights and entitlements. The pastoralists are thus perpetually excluded from governance and driven into powerlessness.

7.0 Conclusion

The study used a qualitative phenomenological approach to establish the information barriers and their socioeconomic impact on the marginalised pastoralists community in Turkana North Sub-County, Kenya.

The findings of the study established that information barriers were prominent in the region were physical isolation, underdeveloped infrastructure and communication network, low literacy levels, language barriers, and sociocultural exclusion.

The barriers cut off the community from the information flow, exposing them to information poverty with dire socioeconomic repercussions. The community miss out on essential trade and market information, participation in socioeconomic programs and initiatives like health and education services, and suffers losses from preventable weather disasters due to a lack of timely warning alerts.

Information poverty among the pastoralist marginalised communities continues to be a key factor in underdevelopment and exclusion of the communities. Interventions in terms of locally driven solutions and government policies that are sensitive and aligned with the pastoralists' realities are urgently required to alleviate the information poverty and spur socioeconomic progress.

8.0 Recommendations

The study would like to recommend:

1. Establishment of community-based communication systems that will include radio stations broadcasting in local languages and the use of culturally appropriate formats for information dissemination.
2. The government is to formulate policies and initiatives that will make it attractive and viable for the telecommunication and utility companies and service providers to invest in the region, thereby expanding the mobile and network infrastructure and solar power energy.
3. Localise and translate public information into local languages and deliver the information in the most

effective formats.

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