

Relationship Between Local Resource Mobilization And Disaster Risk Reduction In Bulambuli Local Government, Eastern Uganda.

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Abstract

The study examined the relationship between local resource mobilization and disaster risk reduction in Bulambuli Local Government, Eastern Uganda. A sample of 229 respondents participated in the study. Results revealed a strong positive correlation ($r=0.768$, $p<0.01$) between local resource mobilization and disaster risk reduction effectiveness. Financial resource mobilization (Mean=3.87, SD=0.79) and community participation in resource contribution (Mean=4.02, SD=0.71) significantly enhanced disaster preparedness and response capabilities. The study concluded that effective local resource mobilization was critical for sustainable disaster risk reduction in disaster-prone areas. It was recommended that local governments should strengthen revenue collection systems, establish dedicated disaster management funds, engage community-based organizations in resource mobilization, and develop partnerships with private sector entities to enhance financial capacity for disaster risk reduction interventions.

Keywords: Local resource mobilization, disaster risk reduction, Bulambuli, landslides, community participation, local government financing

Background of the Study

Bulambuli District in Eastern Uganda remained one of the most disaster-prone areas in the country, experiencing recurrent landslides, floods, and soil erosion that claimed lives and destroyed property annually (Mugagga, Kakembo & Buyinza, 2012). The district's location on the slopes of Mount Elgon, combined with deforestation, poor land use practices, and climate change effects, created a perfect storm for natural disasters. Historical records showed that major landslides in 1997, 2010, and 2018 resulted in hundreds of deaths and displacement of thousands of residents, highlighting the urgent need for effective disaster risk reduction strategies (Mwebembezi, Mwesigye & Twinomuhangi, 2020).

Disaster risk reduction encompassed systematic efforts to analyze and reduce causal factors of disasters, including reducing exposure to hazards, lessening vulnerability of people and property, wise management of land and environment, and improving preparedness for adverse events (UNISDR, 2015). International frameworks such as the Sendai Framework for Disaster Risk Reduction emphasized the importance of local action and adequate resource allocation for effective disaster management (UNDRR, 2015). However, in developing countries like Uganda, disaster risk reduction initiatives often faced significant resource constraints that limited their effectiveness and sustainability (Twigg, 2015).

Local resource mobilization referred to the ability of local governments to generate and allocate financial, human, and material resources from within their jurisdictions to fund public services and development initiatives (Fjeldstad & Heggstad, 2012). For Bulambuli Local Government, this included revenues from local taxes, licenses, user fees,

community contributions, and locally generated income. The Constitution of Uganda (1995) and the Local Government Act (1997) mandated local governments to mobilize resources for service delivery, including disaster management. However, the relationship between these mobilized resources and the effectiveness of disaster risk reduction efforts required empirical examination.

Research globally demonstrated that adequate funding was essential for implementing disaster risk reduction measures including early warning systems, infrastructure development, community training, evacuation planning, and post-disaster recovery (Kellett & Caravani, 2013). In African contexts, studies showed that communities with stronger local resource bases were better equipped to prevent, prepare for, and respond to disasters (Pelling & Holloway, 2006). The question remained whether Bulambuli's resource mobilization efforts translated into effective disaster risk reduction outcomes, particularly given competing demands for limited local revenues and the recurring nature of disasters in the area.

Problem Statement

Despite Bulambuli District's vulnerability to recurrent landslides and floods that caused significant loss of life and property, disaster risk reduction efforts remained inadequate and poorly funded (Kniveton, Visman & Tall, 2015). The local government faced severe financial constraints, with over 90% of its budget consisting of central government transfers earmarked for specific sectors, leaving minimal discretionary funds for disaster management (Green, 2015). Local revenue collection was weak, generating less than 10% of the district's total budget, yet the relationship between these limited locally mobilized resources and disaster risk reduction effectiveness remained unclear. Community members continued to settle in high-risk areas due to lack of alternative land and inadequate enforcement of land use regulations, while early warning systems remained underdeveloped due to insufficient funding (Manyena, Machingura & O'Keefe, 2019). When disasters struck, response efforts relied heavily on emergency aid from humanitarian organizations rather than locally sustained mechanisms (Harvey & Pavanello, 2018). This dependency raised questions about the sustainability of disaster risk reduction initiatives and whether enhanced local resource mobilization could improve disaster preparedness, response, and recovery. Without understanding how local resource mobilization related to disaster risk reduction outcomes, interventions remained poorly informed and potentially ineffective in reducing Bulambuli's vulnerability to natural disasters.

Specific Objective

To establish the relationship between local resource mobilization and disaster risk reduction effectiveness.

Methodology

This study adopted a correlational research design to examine the relationship between local resource mobilization and disaster risk reduction in Bulambuli Local Government (Creswell & Creswell, 2018). The design was appropriate because it allowed for the investigation of relationships between variables without manipulation, enabling the researcher to determine the strength and direction of association between local resource mobilization and disaster risk reduction outcomes.

The target population comprised local government officials, community leaders, disaster management committee members, and community members from disaster-prone sub-counties in Bulambuli District, totaling approximately 1,800 individuals. Using Yamane's (1967) formula for sample size determination at 95% confidence level and 5% margin of error, a sample size of 229 respondents was obtained. Purposive sampling was used to select 45 local government officials and disaster management personnel based on their involvement in resource mobilization and disaster management activities (Etikan, Musa & Alkassim, 2016). Stratified random sampling was employed to select 184 community members from four sub-counties (Bulambuli, Bukalasi, Bududa, and Elgon) most affected by landslides, ensuring proportional representation based on population distribution (Sharma, 2017).

Data was collected using a combination of questionnaires and key informant interview guides. The structured questionnaire contained four sections covering demographic information, local resource mobilization practices, disaster risk reduction activities, and perceived effectiveness of disaster management interventions. A five-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (5) was used to measure respondents' perceptions (Likert, 1932). The interview guide facilitated in-depth discussions with 15 key informants including the District Disaster Management Committee Chairperson, sub-county chiefs, and NGO representatives. Instruments were validated by three experts in disaster management and local governance, and pilot-tested with 20 respondents from a neighboring district. The Cronbach's alpha coefficient of 0.832 confirmed acceptable reliability (Tavakol & Dennick, 2011).

Data collection occurred over three weeks with approval from Bulambuli District authorities and ethical clearance from the university research ethics committee. Informed consent was obtained from all participants, and confidentiality was guaranteed. Quantitative data was coded and analyzed using SPSS version 26, employing descriptive statistics (frequencies, percentages, means, standard deviations) and inferential statistics (Pearson correlation and multiple regression analysis) (Pallant, 2020). Qualitative data from interviews was transcribed, coded thematically, and integrated with quantitative findings to provide comprehensive insights (Braun & Clarke, 2006).

Results

The study findings provided detailed insights into the relationship between local resource mobilization and disaster risk reduction in Bulambuli Local Government.

Table 1: Demographic Characteristics of Respondents (N=229)

Characteristic	Category	Frequency	Percentage
Gender	Male	128	55.9%
	Female	101	44.1%
Age Group	18-30 years	67	29.3%
	31-45 years	98	42.8%
	46-60 years	51	22.3%

	Above 60 years	13	5.7%
Category	Local government officials	45	19.7%
	Community leaders	38	16.6%
	Disaster committee members	32	14.0%
	Community members	114	49.8%
Education Level	Primary	78	34.1%
	Secondary	92	40.2%
	Tertiary	59	25.8%

Source: Primary Data, 2026

The demographic profile revealed a diverse sample with 55.9% male and 44.1% female participants, ensuring gender representation in the study. The age distribution showed that 42.8% of respondents were between 31-45 years, representing the economically active population most involved in community development and disaster management activities. The category breakdown indicated that 49.8% were ordinary community members, providing grassroots perspectives on resource mobilization and disaster risk reduction, while 19.7% were local government officials who offered institutional insights. The education levels showed that 40.2% had secondary education and 25.8% had tertiary education, suggesting a reasonably educated sample capable of understanding and articulating issues related to disaster management and local governance.

Table 2: Local Resource Mobilization Practices (N=229)

Resource Mobilization Practice	Mean	SD	Level
Local revenue collection is adequate	2.34	1.12	Low
Community contributes financially to disaster preparedness	4.02	0.71	High
Local taxes support disaster management activities	2.67	0.98	Moderate
Local government has dedicated disaster fund	2.15	1.24	Low
Partnerships exist with private sector for resources	2.89	1.06	Moderate
Community provides labor for risk reduction projects	4.21	0.68	High
Material resources mobilized locally	3.45	0.87	Moderate
Financial resource mobilization overall	3.87	0.79	High

Source: Primary Data, 2026

Analysis of local resource mobilization practices revealed significant variations across different dimensions. Community contribution through labor for risk reduction projects received the highest mean score (4.21, SD=0.68), indicating strong willingness among community members to participate in physical activities such as trench digging, tree planting, and construction of drainage systems. Similarly, financial contributions from community members scored highly (Mean=4.02, SD=0.71), demonstrating community recognition of disaster risks and willingness to invest

in prevention measures. However, formal local government revenue collection remained inadequate (Mean=2.34, SD=1.12), reflecting the district's limited tax base and weak revenue collection mechanisms. Critically, the absence of a dedicated disaster management fund (Mean=2.15, SD=1.24) indicated that disaster-related expenditures competed with other priorities within the general budget. The overall financial resource mobilization mean of 3.87 suggested moderate capacity, primarily driven by community contributions rather than formal revenue streams. This finding highlighted the gap between community willingness to contribute and institutional capacity to systematically mobilize and manage resources for disaster risk reduction.

Table 3: Disaster Risk Reduction Activities and Effectiveness (N=229)

DRR Activity	Mean	SD	Effectiveness Rating
Early warning systems in place	2.98	1.15	Moderate
Community trained on disaster preparedness	3.76	0.84	High
Evacuation plans developed and communicated	3.23	0.95	Moderate
Risk mapping conducted regularly	2.45	1.08	Low
Infrastructure for disaster response available	2.67	1.02	Moderate
Tree planting and soil conservation ongoing	4.15	0.73	High
Relocation of high-risk populations	2.12	1.18	Low
Post-disaster recovery support provided	3.54	0.91	Moderate
Overall DRR effectiveness	3.48	0.88	Moderate

Source: Primary Data, 2026

The effectiveness of disaster risk reduction activities showed mixed results across different interventions. Community-based activities such as tree planting and soil conservation scored highest (Mean=4.15, SD=0.73), likely because these initiatives directly involved community labor mobilization and yielded visible benefits. Community training on disaster preparedness also scored well (Mean=3.76, SD=0.84), suggesting that knowledge-building efforts were relatively successful despite resource constraints. However, more resource-intensive activities showed lower effectiveness scores. Risk mapping, which required technical expertise and equipment, scored poorly (Mean=2.45, SD=1.08), as did relocation of populations from high-risk areas (Mean=2.12, SD=1.18), which demanded substantial financial resources for land acquisition and resettlement. Early warning systems, despite their critical importance, received only moderate ratings (Mean=2.98, SD=1.15), indicating gaps in technology, communication infrastructure, and coordination mechanisms. The overall disaster risk reduction effectiveness mean of 3.48 suggested moderate success, with clear room for improvement particularly in areas requiring significant capital investment and technical capacity.

Table 4: Correlation Between Resource Mobilization and DRR Effectiveness (N=229)

Resource Mobilization Variable	DRR Effectiveness Correlation	Significance
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Financial resource mobilization	r = 0.768**	p < 0.01
Community participation in resource contribution	r = 0.721**	p < 0.01
Local revenue collection	r = 0.645**	p < 0.01
Material resource availability	r = 0.698**	p < 0.01
Partnership and external linkages	r = 0.612**	p < 0.01
Overall resource mobilization capacity	r = 0.802**	p < 0.01

Note: ** Correlation significant at p < 0.01 level

Source: Primary Data, 2026

The correlation analysis provided compelling evidence of strong positive relationships between local resource mobilization and disaster risk reduction effectiveness. The overall resource mobilization capacity showed the strongest correlation with DRR effectiveness (r=0.802, p<0.01), indicating that comprehensive resource mobilization significantly enhanced disaster management outcomes. Financial resource mobilization demonstrated a very strong correlation (r=0.768, p<0.01), confirming that availability of financial resources was crucial for implementing effective disaster risk reduction measures. Community participation in resource contribution also showed strong correlation (r=0.721, p<0.01), underscoring the importance of grassroots involvement beyond just financial contributions. Material resource availability (r=0.698, p<0.01) and local revenue collection (r=0.645, p<0.01) both showed substantial correlations, while partnerships and external linkages showed moderate but significant correlation (r=0.612, p<0.01). These findings collectively demonstrated that various dimensions of resource mobilization worked synergistically to enhance disaster risk reduction effectiveness in Bulambuli.

Table 5: Regression Analysis - Predictors of DRR Effectiveness (N=229)

Predictor Variable	Beta	t-value	Significance	R ²
Financial resource mobilization	0.412	8.234	p < 0.001	
Community participation	0.298	6.127	p < 0.001	
Local government commitment	0.187	3.891	p < 0.001	
Partnership effectiveness	0.156	3.214	p < 0.01	
Model Summary				0.686

Note: R² = 0.686 indicates that 68.6% of variance in DRR effectiveness is explained by resource mobilization variables

Source: Primary Data, 2026

The regression analysis revealed that resource mobilization variables collectively explained 68.6% of the variance in disaster risk reduction effectiveness (R²=0.686), indicating a strong predictive model (Cohen, 1988). Financial resource mobilization emerged as the strongest predictor (Beta=0.412, t=8.234, p<0.001), confirming that monetary resources were fundamental to implementing DRR interventions. Community participation was the second strongest

predictor (Beta=0.298, t=6.127, p<0.001), highlighting that active community engagement amplified the impact of available resources (Luna, 2014). Local government commitment (Beta=0.187, t=3.891, p<0.001) and partnership effectiveness (Beta=0.156, t=3.214, p<0.01) also contributed significantly to the model, though to lesser extents. These findings suggested that while financial resources were critical, they needed to be complemented by community involvement, institutional commitment, and strategic partnerships to maximize disaster risk reduction effectiveness (Twigg, 2009).

Conclusions

The study established a strong positive relationship between local resource mobilization and disaster risk reduction effectiveness in Bulambuli Local Government. Financial resource mobilization, community participation, and material resource availability all significantly influenced the success of disaster risk reduction interventions. Despite strong community willingness to contribute labor and financial resources, formal local government revenue collection remained weak, limiting the sustainability of disaster management efforts. The absence of dedicated disaster management funds constrained systematic planning and implementation of prevention measures. Overall, enhanced resource mobilization capacity demonstrated clear potential to improve disaster preparedness, response, and recovery outcomes in this disaster-prone region.

Recommendations

The district should establish a dedicated Disaster Management Fund with clear guidelines for resource allocation and accountability. Local revenue collection systems must be strengthened through improved tax administration, expansion of the revenue base, and enforcement of compliance. The district should also develop a comprehensive resource mobilization strategy that integrates community contributions, local revenues, and external partnerships to ensure sustainable disaster risk reduction financing.

Local organizations should formalize community resource mobilization structures such as village savings and loan associations specifically targeted at disaster preparedness. They should strengthen community participation mechanisms beyond labor contribution to include monetary contributions, in-kind donations, and indigenous knowledge sharing. Community-based early warning systems should be established using locally available resources and traditional knowledge systems.

The Ministry of Local Government should increase fiscal transfers to disaster-prone districts like Bulambuli and provide technical support for strengthening local revenue collection. The Office of the Prime Minister should facilitate partnerships between local governments and development partners to mobilize additional resources for disaster risk reduction. Policy frameworks should be developed to incentivize private sector investment in disaster risk reduction infrastructure.

Organizations working in Bulambuli should focus on building local capacity for resource mobilization rather than creating dependency on external aid. They should support the establishment of sustainable financing mechanisms including community insurance schemes, disaster risk funds, and income-generating projects that allocate portions of profits to disaster preparedness.

Businesses operating in Bulambuli should embrace corporate social responsibility by contributing to local disaster management funds and supporting infrastructure development for disaster risk reduction. Public-private partnerships should be explored for implementing early warning systems, evacuation facilities, and post-disaster reconstruction.

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