



# Urban Risk Management and Building Resilience: Effective Disaster Risk Management Strategies in Narok County, Kenya

Timothy Earl Mateo CASTILLON



EIMAS  
EUROPEAN INTERDISCIPLINARY  
MASTER AFRICAN STUDIES  
Erasmus Mundus Joint Master Degree

Narok County, Kenya, is highly vulnerable to floods and droughts, causing significant human, social, and economic losses, including illness, displacement, property damage, and loss of life. This study investigated the drivers, impacts, and institutional arrangements for disaster risk management (DRM). Using interviews, participant observation, and document analysis, the study identified extreme rainfall, droughts, and outdated infrastructure as primary disaster drivers. While both state and non-state actors implement policies, strategies, training, and partnerships, DRM efforts are constrained by weak legislation, limited funding, insufficient equipment, and lack of qualified personnel. The study emphasizes the need to integrate DRM into local development planning and recommends comprehensive risk assessments, strengthened partnerships, and adoption of integrated, sustainable DRM strategies to enhance urban resilience in Narok County and similar urbanizing contexts.

## Background

- **Urban and environmental context:** Narok County is prone to recurring floods and droughts, intensified by climate variability, deforestation, and unplanned settlements.
- **Socio-economic vulnerability:** Communities depend on rain-fed agriculture and livestock, making livelihoods sensitive to climatic hazards. Disasters exacerbate poverty, food insecurity, and social vulnerability.
- **Infrastructure and urban planning:** Rapid urban growth has outpaced infrastructure development, with inadequate drainage, poorly maintained roads, and settlements in flood-prone areas.
- **Institutional and policy context:** Kenya has a national DRM framework, but *county-level implementation is fragmented* due to limited funding, weak legislation, and insufficient human and technical capacity.

## Results

- **Disaster Drivers**
  - Extreme rainfall, droughts, and inadequate drainage infrastructure.
  - Deforestation and settlement in high-risk flood zones.
- **Impacts**
  - *Human:* Loss of lives, recurrent displacement, and increased illness.
  - *Livelihoods:* Crop failures and livestock losses (20–30% during drought years).
  - *Economic:* Market closures and infrastructure damage disrupt trade and mobility.
- **Institutional Arrangements**
  - County Disaster Management Committee leads coordination.
  - NGOs, Red Cross, and community groups provide relief, training, and awareness.
- **Disaster Drivers**
  - Mainstream DRM into County Integrated Development Plan (CIDP).
  - Strengthen early warning systems and community-based preparedness.
  - Build partnerships to mobilize resources and expand capacity.

## Conclusion and Recommendations

- Narok County’s vulnerability stems from both environmental hazards and institutional shortcomings. To build resilience:
  1. Comprehensive risk and impact assessments to map hazards and vulnerabilities.
  2. Strengthened partnerships between government, NGOs, community groups, and the private sector for coordinated preparedness and response.
  3. Policy and funding alignment to close gaps between national frameworks and county implementation.
  4. Integrated DRM strategies, including:
    - Incorporation into county planning frameworks such as the CIDP.
    - Investments in infrastructure, drainage, and early warning systems.
    - Capacity building and technical training for disaster management personnel.
- These measures offer evidence-based guidance for policymakers and practitioners, contributing to stronger disaster preparedness and long-term resilience in Narok County and comparable urbanizing contexts.

## Methodology

- Qualitative case study focused on Narok town and surrounding communities.
- Fieldwork: February – May 2022.
- Key informant interviews with government, NGOs, and community leaders.
- Participant observation of local DRM practices.
- Document analysis of policies, strategies, and county reports.
- Thematic analysis identifying disaster drivers, impacts, institutional arrangements, and DRM gaps.

CONTACT

