

# THE INSTITUTIONAL FRAMEWORK OF EDRM IN SIMANJIRO DISTRICT (TANZANIA) AND ITS IMPLICATIONS FOR TOURISM STABILITY

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## **Abstract**

The increasing intensity of environmental threats necessitates robust institutional environmental disaster risk management (EDRM). This study analyses the structure and performance of EDRM institutions in the Simanjiro District of Tanzania, focusing on how this may impact the vital tourism sector. The EDRM research employs a qualitative approach, combining primary data from field observations and interviews with a secondary analysis of national guidelines. The primary threat in the district is extreme drought, which directly devastates biodiversity and Maasai culture – the two fundamental pillars of local tourism. The absence of proactive management and insufficient coordination weakens the districts' resilience to climate change disasters. The reactive approach of institutions fails to ensure the protection of wildlife migration routes or the stability of Maasai communities, which may lead to a decline in Simanjiro's attractiveness as a tourist destination. The study confirms that although a strong institutional framework exists, its actual effectiveness remains subpar. To preserve tourism, it is essential to strengthen technical capacities, resources, and the mutual coordination of local institutions so that they can not only address risks but also prevent them.

**Key words:** climate change, sustainable tourism, institutional coordination, extreme drought, Maasai culture

## **Introduction**

The increasing frequency of natural disasters is destabilising the pillars of sustainable development globally, with sub-Saharan Africa remaining the most vulnerable region due to limited institutional capacities and weak infrastructure (FAO, 2021; Guha-Sapir et al., 2015). The solution to this vulnerability, exacerbated by climate change and environmental degradation, lies in a shift from reactive aid to robust institutional environmental disaster risk management (EDRM) capable of keeping risks at an acceptable level (UN/ISDR, 2014; Rivera et al., 2020). Although Tanzania has a central coordination framework, the effectiveness of EDRM at the local level faces technical and socio-economic barriers, which are particularly pronounced in Simanjiro District (Adenle, Ford, 2017). As district-level institutions are key to disaster prevention and mitigation, this study analyses the structure and performance of both formal and informal actors in Simanjiro to identify barriers and success factors in protecting local resources from environmental threats (Vogel, Koch, 2010).

## **Materials and methods**

In the study, we used primary data obtained through face-to-face interviews with key informants, focus group discussions (FGDs), and secondary data on completed and ongoing DRM projects from the Simanjiro District Council website. In addition, 19 representatives from non-governmental organisations and the private sector were selected based on their involvement in EDRM. Focus group discussions (FGDs) were conducted to ascertain how communities perceive and cooperate with both formal and informal EDRM institutions, by measuring perceived effectiveness and gaps in institutional response, and by identifying contextual and socio-cultural factors that influence institutional performance. Secondary data were collected through a thorough review of relevant documents related to the study. The documents reviewed included Tanzania's National Disaster Risk Management Strategy for 2022–2027, published articles, and various district reports on EDRM. A qualitative approach to data analysis was employed in the study. Primary data obtained through interviews with key informants and focus group discussions were analysed using inductive thematic analysis. This method of analysis provides a comprehensive mechanism for deriving meaningful patterns and themes from qualitative data (Braun, Clarke, 2019).

## Results

Environmental extremes, particularly cyclical droughts and flash floods, pose an existential threat to tourism in Simanjiro, as they directly degrade its key pillars: biodiversity and Maasai culture.

### ***Threats to wildlife tourism and migration routes***

The Simanjiro plains are an integral part of the Tarangire National Park's migration ecosystem. However, climate instability and environmental degradation (Morita, 2014; Shah et al., 2023) are destabilising this system:

*Disruption of migration cycles*: Irregular rainfall patterns and droughts disrupt the natural migration of wildebeest and zebras. This makes them harder to locate, reduces the visual appeal of safaris, and weakens the destination's competitiveness.

*Loss of biodiversity*: Extreme droughts lead to the drying up of key waterholes and the degradation of pastures, which increases mortality rates among animal populations and disrupts the integrity of the unique ecosystem.

### ***Negative impact on cultural tourism***

Environmental disasters act as a catalyst for the cultural erosion of the Maasai, whose identity is ontologically linked to a pastoral way of life.

*Devaluation of authenticity*: The decimation of herds (over 92,000 head of cattle died in 2022) is forcing young Maasai to flee to the cities. This brain drain is causing the demise of living traditions, thereby depriving tourism of its most valuable element – an authentic cultural experience.

*Decline in service quality*: Scarcity of water and raw materials limits the production of material culture (jewellery, artefacts) and makes it impossible to maintain hygiene standards for visitors.

### ***Infrastructure destruction and economic instability***

Climate events degrade the districts' physical assets, creating technical and financial barriers for operators:

*Critical impassability*: Torrential rains regularly damage unpaved roads, isolating accommodation facilities (tented camps) and preventing access to key attractions.

*Physical damage and technical wear and tear*: Extreme weather directly damages lodge structures, whilst high dust levels and humidity accelerate the deterioration of technical systems (solar panels, boreholes). Constant repair work increases fixed costs and reduces the area's competitiveness.

### ***Health and safety risks***

Climate instability increases the destination's risk profile, which directly deters international visitors:

*Epidemiological threats*: Floods correlate with an increase in waterborne diseases (cholera) and vector-borne diseases (malaria, dengue), raising concerns about the biological safety of visitors.

*Escalation of conflicts (Human-Wildlife Conflict)*: Water scarcity forces wildlife to migrate towards human settlements, increasing the risk of dangerous encounters. At the same time, the declining availability of grazing land exacerbates tensions between communities and park management, creating an unstable social environment.

*Logistical uncertainty*: The impassable terrain prevents rapid evacuation or access to healthcare, which increases tourists' subjective perception of risk.

### ***Assessment of institutional preparedness in the Simanjiro district***

Although the district has a legislative framework, its actual effectiveness in managing environmental risks is low:

*Reactive management*: Institutions focus on addressing consequences rather than proactive prevention, which is ineffective in the face of cyclical droughts.

*Fragmentation and coordination*: The lack of links between state structures, NGOs, and Maasai institutions weakens the region's overall resilience.

*Institutional blindness*: Current risk management fails to adequately reflect the specific needs of the tourism sector, leading to a failure to protect migration corridors and community stability.

*Capacity deficit*: A chronic shortage of technical and financial resources prevents the implementation of effective early warning systems.

## Discussion

The study's findings point to the mediocre performance of the Environmental Disaster Risk Management (EDRM) system in Simanjiro District, reflecting deeper systemic shortcomings in the institutional framework. A key problem is the critical fragmentation and weak horizontal coordination

among actors, which, according to Hkh et al. (2023), prevents the achievement of synergistic effects in crisis management. The absence of a unified strategy in Simanjiro causes undesirable duplication of tasks in certain sectors, whilst other vulnerable areas remain without the necessary coverage. This situation is exacerbated by the reactive nature of the system, which, under pressure from financial and technical constraints, prioritises immediate crisis response (mitigation) over long-term preparedness and recovery (Shah et al., 2023). Such an approach is in direct contradiction to the priorities of the Sendai Framework, which defines investment in preparedness as the most cost-effective tool for building resilience (UNDRR, 2020).

Another significant finding is the marginalisation of non-governmental organisations and informal traditional institutions, which, despite their high level of activity on the ground, remain excluded from the district's official decision-making processes. This 'inclusivity deficit' is not unique to the African context, as confirmed by comparative studies from Zimbabwe and Uganda (Mubaya, Mafongoya, 2017). In Simanjiro District, this problem appears as untapped potential; whilst state authorities struggle with a lack of resources, the capacity and expertise of non-state actors are utilised only on a voluntary basis without formal integration. Effective transformation of EDRM in the district, therefore, requires a shift towards a participatory governance model that integrates informal structures into the official hierarchy (Scottish Water, 2020). Only formal recognition and a clear distribution of tasks among all stakeholders can, in conditions of limited resources, ensure the stability of the district and protect its key economic sectors, including tourism.

## Conclusion

Although Tanzania has a strong institutional framework for EDRM, its implementation at the local level remains below par. Its effectiveness at the district level is limited by weak integration and coordination among stakeholders and insufficient technical and financial resources. Furthermore, both formal and informal institutions tend to be reactive, prioritising response and mitigation over preparedness and recovery, which are fundamental aspects of ensuring resilience to the risks of environmental disasters. Overall, this study concludes that effective EDRM in Tanzania depends not only on the existence of policies, legal instruments, and institutions, but also on their functional capacity, coordination, and ability to respond at the local level.

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### **Souhrn**

Tato studie analyzuje systém řízení environmentálních rizik (EDRM) v tanzanském okrese Simanjiro a jeho vliv na stabilitu cestovního ruchu. Region čelí extrémním suchům a povodním, které devastují biodiverzitu a masajskou kulturu – klíčové pilíře místního turismu. Výsledky ukazují, že i přes existující legislativu je systém EDRM neefektivní kvůli fragmentaci, slabé koordinaci a reaktivnímu přístupu, který upřednostňuje řešení následků před prevencí. Nedostatečná ochrana migračních tras zvěře a destabilizace masajských komunit vedou k erozi autenticity destinace. Studie doporučuje přechod k proaktivnímu, participativnímu modelu řízení a formální integraci místních komunit do rozhodovacích procesů.

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