



# Capacity-Building Workshop on the Potential of Stable Isotopes in Deceased Migrant Identification in Tanzania

*Harnessing the potential of stable isotopes in identifying deceased migrants from the Horn of Africa*



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## **ABSTRACT**

A three-day workshop was held in Tanga, Tanzania, to discuss the humanitarian need for identification of deceased migrants. Isotope analysis is a proposed tool to provide information about geographic travel history and leads for identification. Throughout the workshop, attendees from universities, government agencies, and medicolegal practitioners explored topics around building capacity for forensic isotope analysis in Tanzania.

## **BACKGROUND**

There is a growing crisis involving the identification of deceased migrants along the southern route from the Horn of Africa. These migrants are facing harsh conditions as they pass through Tanzania as an escape route to South Africa (Figure 1). Migrants along the southern route frequently resort to unsafe modes of transportation and smuggling networks during their journey, exposing themselves to injury, violence, detention, exploitation, and abuse. The causes of their deaths are associated with poor conditions such as suffocation and lack of food.

The names of the missing and the dead are not always known, and there is limited access to the families of the missing. Because of this, bodies found are often buried unidentified and in unmarked graves. Families do not know if a missing relative is alive or dead. Because these bodies are collected in foreign lands, tracking the origin is always very challenging.

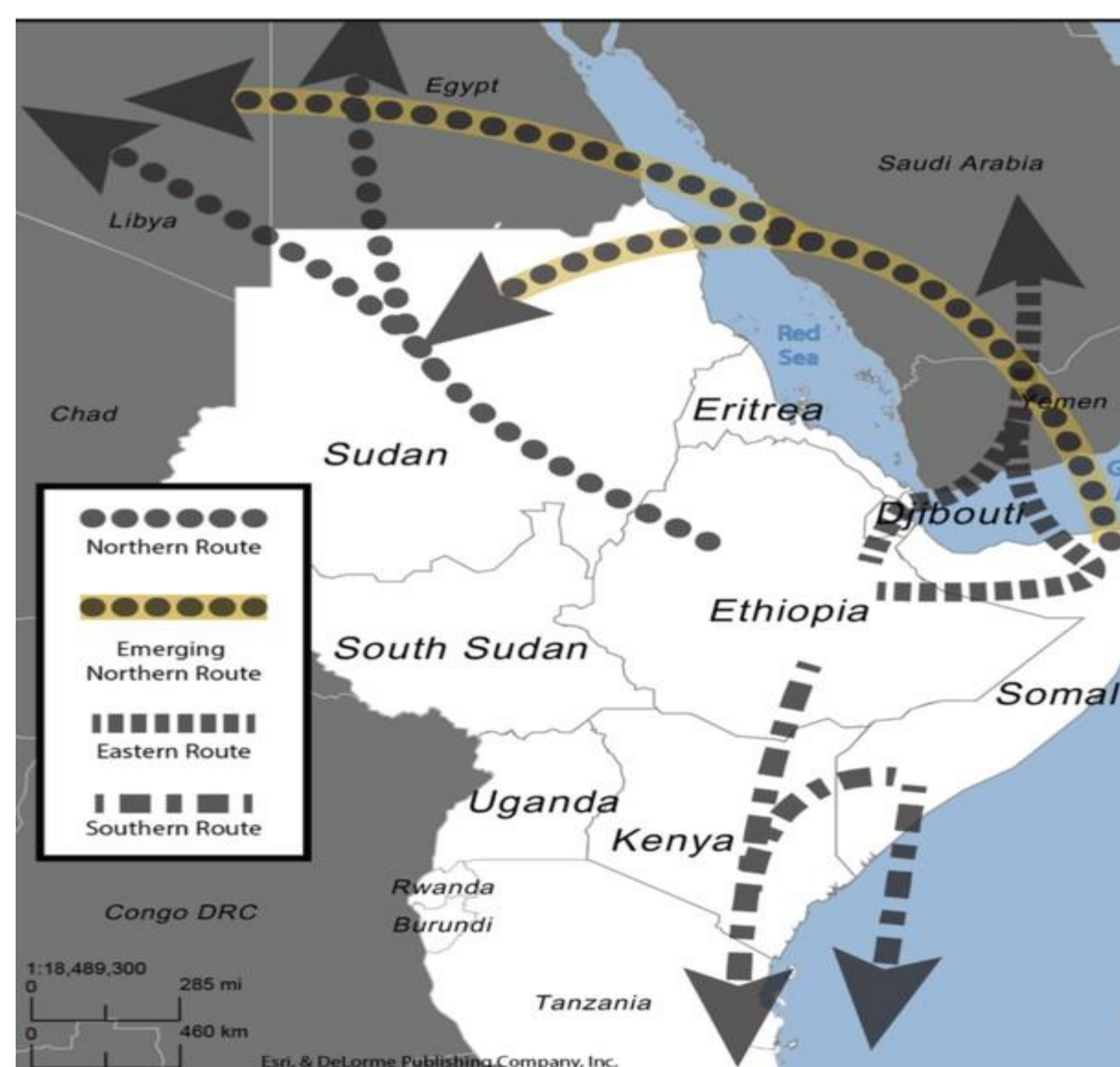


Figure 1: Migrant routes in the Horn of Africa

## **STABLE ISOTOPES AS A TOOL FOR HUMAN IDENTIFICATION**

Isotope analysis uses chemical signatures from human remains to learn more information about the diet and geographic travel histories of individuals prior to death. In the absence of other leads, this information can assist investigators with clues about a person's area of origin. In the cases of deceased migrants, this information can be valuable because the migrants have often travelled far from their countries of origin. Although there is a great potential for stable isotopes, their use in identification of migrants has not been explored in the region due to the lack of capacity and knowledge of law enforcement authorities and the stakeholders in the immigration and medicolegal communities.

## **CAPACITY-BUILDING THROUGH COLLABORATION**

A three-day workshop was held August 13 -15, 2024, in Tanga, Tanzania. The workshop brought together twenty-five participants from the University of Dodoma (UDOM), Vanderbilt University, Tanzania Police Force (Forensic Bureau), Government Chemist Laboratory Authority (GCLA), Muhimbili National Hospital (MUHAS), Makole Hospital, Tanzania Immigration (TISD), and the United Nations International Organization for Migration (UN-IOM) (Figure 2).



Figure 2: Participants of the three-day workshop held in Tanga, Tanzania.

## **WORKSHOP OBJECTIVES**

- To create awareness among forensic experts and law enforcement authorities on the principles and applications of stable isotopes in identifying the geographic origins and life histories of unidentified remains.
- To enhance local capacity and expertise in utilizing stable isotope analysis as a forensic tool to aid in the identification of deceased migrants.
- To bring together professionals from forensic science, law enforcement, academia, and humanitarian organizations to foster collaboration in addressing the challenges of migrant identification.

## **OUTCOMES**

- Increased understanding of the principles of stable isotope analysis, including forensic applications for tracing the geographic origins of deceased migrants.
- Insight into the complexities of migrant identification in Tanzania, including gaps in current methods, the socio-political context, and ethical considerations.
- Task groups created action plans outlining steps for integrating stable isotope methods into current forensic workflows, highlighting funding, training, and infrastructure needs.

## **SUMMARY**

This Humanitarian and Human Rights Resource Center (HHRRC)-supported project represents a vital step toward more systematic and scientifically grounded approaches to deceased migrant identification in Tanzania. By promoting the use of stable isotopes, it reinforced the broader goals of ensuring human dignity, providing answers to affected families, and strengthening Tanzania's role in global humanitarian efforts. Its key outcomes included the drafting of actionable roadmaps to integrate isotopic methods into national forensic strategies, while addressing ethical and operational considerations.

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