



## **Terms of Reference**

### **GIS and Remote Sensing Expert in Mapping of the Transhumance Corridor which Consists of the Karamoja Cluster between Uganda, South Sudan, Kenya and Ethiopia Communities**

#### **Background**

This TOR falls under the IGAD project “*Towards the Protocol on Free Movement of Persons and Transhumance in the IGAD Region*” which aims to support the process of adoption, ratification and domestication and Implementation of the Protocols Free Movement of Persons and Transhumance in the IGAD Region. The IGAD draft Transhumance Protocol foresees that all transhumant herders and livestock shall be allowed free passage across the borders of Member States for water and pasture under certain conditions set in the protocol. During the first phase of the program, the protocols have been finalized, validated and endorsed by the IGAD Committee of Ambassadors. In the second phase, the program will support the process of adoption, ratification and domestication of the IGAD Protocols on Free Movement of Persons and Transhumance along with complementary measures to implement them.

The growing effects of population pressure, land use land cover changes have continued to exert pressure on the preexisting grazing areas as they are slowly being converted or replaced by agricultural lands, settlements or gazetted as reserves and protected areas. Transhumance / pastoral mobility is an inherent strategy of pastoralists to optimize production under a heterogeneous landscape often characterized by high spatial-temporal rainfall variability.

With the growing effect of population pressure and land use land cover changes, much of the preexisting livestock routes, grazing areas are slowly being converted to and replaced by agricultural lands, settlements, gazetted as reserves and mineral concessions areas. The protocol aims to facilitate formal safe livestock cross-border mobility in the region. It is on this basis that the mapping initiative was rolled out so to serve as an impetus for identification of priority cross border transhumance routes and resource gaps to unravel the complexities associated with mobile pastoral populations and shared natural resources. Spatially identified and prioritized corridors within the IGAD cross border areas will form basis of orderly, regulated movement strategies across national border as well as pastoral livelihood tailored investments, development and resilience strategies. It for this reason that mapping of transhumance corridors, resources and services was deemed necessary as a pre requisite for identifying these cross border routes, services and resources through GIS application technologies and participatory mapping approaches in support of the broader IGAD transhumance protocol.



A coordinated participatory mapping was conducted in IGAD cluster 1 between Kenya and Uganda where 14 corridors were identified as conduits of investments as well as associated social services and seasonal grazing areas. To complete the mapping process for the entire cluster border areas, ICPALD is requiring the services of a GIS expert in mapping of the Transhumance corridors between South Sudan, Kenya, Uganda and Ethiopia.

### **Scope of Assignment**

The position of the GIS and Remote Sensing Consultant will be based at the IGAD Centre for Pastoral Areas and Livestock Development (ICPALD) in Nairobi. The Consultant responsibilities will entail mapping of the Transhumance corridors which consists of the Karamoja cluster between South Sudan, Kenya and Uganda and between Ethiopia, Kenya and South Sudan areas which consist of Toposa, Karamojong, Turkana, Nyangatom and Dassenech communities.

Under supervision of the Transhumance Expert, the consultant will undertake the following tasks and activities:

- Work closely with the Transhumance expert and the ICPALD GIS Expert in collating spatial and non-spatial information along transhumance corridors such as but not limited to basic infrastructure, social amenities, and natural resources etc.
- Develop base maps for participatory mapping sessions.
- Coordinate participatory mapping sessions of transhumance routes and its associated features with identified key stakeholders for purpose of validation.
- Develop first draft maps on spatial distribution of transhumance corridors with its associated features, resources and social services
- Identification of key cross border routes/corridors, resources (water, dry and wet season grazing areas), stakeholder profiling and proposed investment plans for adoption as envisioned in the IGAD transhumance protocol.
- Identification of cross border resource management and conflict mitigation that will support the use of existing structures and collaboration among the various actors. This could feed into the cross border development integrated plans.

### **Deliverables**

- Inception Report on Assessment of the Karamoja Transhumance corridor mapping sessions, map digitization of the transhumance routes.
- A draft report from compilation of base maps and conduct participatory mapping sessions of the transhumance routes, resources and resource sharing plan, stakeholder profiling, conflict mitigation plans and proposed investment plans for the transhumance corridors



- 2<sup>nd</sup> draft Report with inputs from the preceding activities to be submitted for validation.
- Validation of identified transhumance routes, resources and resource sharing plan, stakeholder profiling, conflict mitigation plans and proposed investment plans between Kenya, South Sudan and Uganda border areas and between Ethiopia, Kenya and South Sudan border areas.
- Final Report incorporating inputs from the validation meeting and ICPALD team highlighting accomplishment of the engagement and key recommendations.

### **Institutional Arrangement**

The consultant will liaise with the GIS Expert at ICPALD and work under the overall guidance of the Transhumance Expert.

The IGAD/EUTF project will be responsible for providing the contractor with all necessary information related to the project in a timely thorough and transparent manner. It will be also responsible to provide clarifications and facilitation of the work.

### **Duration**

The consultant shall perform his/her duties prior to the field mission, during the field mission and thereafter submit the final report. The consultancy period will be staggered over a period of not more than 6 months from August 2021 to January 2022.

### **Payment Procedure**

Payment procedures will be stipulated in the contract and will be made as per the schedule of deliverables.

<b>Deliverable</b>	<b>Time Frame</b>
Inception Report on Assessment of the Karamoja Transhumance corridor mapping sessions, map digitization of the transhumance routes	August 2021
A draft report from compilation of base maps and conduct participatory mapping sessions of the transhumance routes, resources and resource sharing plan, stakeholder profiling, conflict mitigation plans and proposed investment plans for the transhumance corridors	September 2021



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2 <sup>nd</sup> draft Report with inputs from the preceding activities to be submitted for validation	October 2021
Validation of identified transhumance routes, resources and resource sharing plan, stakeholder profiling, conflict mitigation plans and proposed investment plans between Kenya, South Sudan and Uganda border areas and between Ethiopia, Kenya and South Sudan border areas	November 2022
Final Report incorporating inputs from the validation meeting and ICPALD team highlighting accomplishment of the engagement and key recommendations	December 2022
Final Report of validated transhumance routes and resources	January 2022

### **Duty Station**

The consultant will report to the ICPALD Office in Nairobi, Kenya.

### **Qualifications and Experience Education:**

- University degree in geographic information systems, geography, computer science, or in other relevant discipline.
- Minimum 2 years of quantitative research experience, with a strong emphasis on spatial analysis and detailed report preparation
- Working knowledge and experience in developing and managing GIS databases. An equivalent amount of education and/or experience is acceptable;
- Demonstrable experience in using ESRI ArcGIS tools (good working knowledge of spatial analyst tool, ArcGIS Online), and QGIS mapping application;
- Proficiency in MS Office especially MS Excel;
- Have the ability to work at a fast pace and meet deadlines;
- Good communication skills and fluent in English.

### **Taxes**

The consultant will be responsible for remitting his/her own taxes.

### **Insurance Cover**



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The consultant will be responsible for his/her own travel, medical and life insurance cover/s for the duration of the assignment.

### **How to Apply**

Interested candidates should submit their applications accompanied by a detailed CV, copies of both academic and professional certificates and their interest and ability to undertake this assignment to [beverlyne.nyanchera@igad.int](mailto:beverlyne.nyanchera@igad.int); [japheth.kasimbu@igad.int](mailto:japheth.kasimbu@igad.int); and [procurement@igad.int](mailto:procurement@igad.int)

All applications should be received not later than July 23, 2021 at 1600hrs (EAT)