

Terms of reference (ToR) for the procurement of services below the EU threshold

CONFIDENTIAL

DEVELOPMENT OF OPTIONS TO DEPLOY THE ANALYTICAL FINGERPRINT (AFP) FOR 3T MINERALS IN THE AFRICAN GREAT LAKES REGION	Project number/ cost centre: G-012144 / 1214420000
	Tender number 10055760

0.	List of abbreviations	2
1.	Background.....	3
3.	Tasks to be performed by the contractor	4
4.	Concept.....	6
	Technical-methodological concept	6
5.	Personnel concept.....	6
	Team leader	6
	Key expert 1	7
6.	Costing requirements	8
	Assignment of personnel and travel expenses	8
	Sustainability aspects for travel	8
7.	Inputs of GIZ or other actors.....	10
8.	Requirements on the format of the tender	10
9.	Annexes	10

0. List of abbreviations

3T	tin, tantalum, tungsten
AFP	Analytical Fingerprint
AMGC	African Minerals and Geosciences Centre
BGR	<i>Bundesanstalt für Geowissenschaften und Rohstoffe</i> (German Geological Survey)
BMZ	<i>Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung</i> (German Federal Ministry for Economic Cooperation and Development)
DRC	Democratic Republic of the Congo
EU	European Union
GIZ	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH</i> (German Technical Cooperation)
ICGLR	International Conference on the Great Lakes Region
RCM	Regional Certification Mechanism
ToRs	Terms of reference

1. Background

The German Federal Ministry for Economic Cooperation and Development (BMZ) has commissioned Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH to implement the regional project *Cooperation on Peace, Security and Responsible Resource Governance in the Great Lakes Region of Africa* in partnership with the International Conference on the Great Lakes Region (ICGLR). The current project phase focuses on responsible mineral supply chains and the intersection with peace and security in the Great Lakes Region, as well as the strengthening of institutional capacities of the ICGLR. It runs from 12/2022 until 12/2028 with a total budget of EUR 27.5 Mio (incl. project co-financings from the EU Delegation Rwanda, EU Delegation Uganda and Dutch Government).

2. Context

The African Great Lakes Region continues to face persistent insecurity linked to the illicit exploitation and trade of mineral resources, particularly in eastern Democratic Republic of the Congo (DRC). Armed groups derive revenues from the extraction and trafficking of tin, tantalum, tungsten and gold (3TG), contributing to the continuation of conflict, weakening state authority, and undermining economic development. In response, the ICGLR established the Regional Certification Mechanism (RCM), which aims to promote conflict-free mineral supply chains through mine inspections, chain-of-custody systems, certification procedures, independent audits and regional mineral databases. While these traceability systems have significantly improved transparency in regional mineral trade, they remain vulnerable to fraud at the beginning of the supply chain. Minerals of illicit origin can be introduced at mine sites or trading centres and subsequently enter certification systems as legitimate material. Once such material has been registered within a document-based chain-of-custody system, conventional traceability tools—including tags, documentation, GPS tracking or blockchain-based solutions—have limited ability to detect the fraud.

To address this challenge, the Analytical Fingerprint (AFP) was developed by the German Federal Institute for Geosciences and Natural Resources (BGR) and integrated into the ICGLR Regional Certification Mechanism. AFP uses the mineralogical and geochemical characteristics inherent in tin, tantalum and tungsten ores to verify their declared origin. By comparing samples from a shipment against a database of reference samples from known mine sites, AFP provides an independent scientific line of evidence on mineral provenance. AFP is therefore not intended to replace existing traceability systems but to complement them through targeted spot checks, due diligence audits, investigations of suspicious shipments, and independent verification requests by companies and regulators. The AFP offers significant potential to strengthen the credibility and integrity of the ICGLR certification system. It is one of the few available tools capable of independently verifying the origin of 3T minerals and detecting attempts to introduce illicit material into certified supply chains. Beyond supply-chain assurance, AFP-generated mineralogical data can support geological knowledge, mineral resource management, occupational health and safety, and environmental risk assessment within member states.

Despite its technical maturity, AFP has not yet been operationally applied within the ICGLR framework. Implementation faces several challenges, including limited political commitment among Member States, unclear institutional responsibilities within ICGLR, insufficient funding for analyses and statistical evaluation, and gaps in laboratory infrastructure. While sample preparation laboratories were established in Burundi, Rwanda and the DRC (Bukavu), only the Burundi facility is currently operational, and analytical capacities at the African Minerals and Geosciences Centre (AMGC) in Tanzania were not fully functional in June 2025. However, the transfer of the analytical lab to the Geological Survey Tanzania should take place sometime in

2026. In addition, no Member State has formally requested AFP verification to date, despite a few private companies which have made such requests.

Given the growing international demand for credible conflict-free mineral supply chains and the renewed scrutiny of mineral trade in the Great Lakes Region, there is a strategic opportunity to assess how AFP can be operationalized as an effective integrity assurance mechanism within the ICGLR Regional Certification Mechanism. As a sister organization to BGR, GIZ therefore commissions a study to understand how the institutional, technical and operational foundations for AFP deployment can be strengthened to enhance confidence in regional mineral certification systems and contribute to more responsible resource governance in the Great Lakes Region.

3. Tasks to be performed by the contractor

The contractor is responsible for providing the following services:

- a. **Conduct a comprehensive assessment of the current status of the Analytical Fingerprint (AFP)**, covering its technical, institutional, operational, financial, and political dimensions. This includes, but is not limited to, a review of infrastructure (sample preparation and analytical laboratories), database management, statistical evaluation procedures, governance arrangements within the ICGLR framework, and existing financing mechanisms, as well as the level of AFP integration into the ICGLR Regional Certification Mechanism (RCM) and into the ICGLR Audit System and key gaps affecting operational readiness.
- b. **Assess the enabling conditions and constraints for AFP implementation at regional and national levels**, including political commitment among ICGLR Member States, clarity of institutional ownership and responsibilities, availability and functionality of laboratory infrastructure, stakeholder perceptions, and the presence or absence of demand for AFP services, with particular attention to feasibility under current political and operational conditions.
- c. **Engage with relevant stakeholders**, including the ICGLR Secretariat, Member State authorities, BGR, laboratory operators, development partners, and private sector actors in the mineral supply chain, to collect perspectives on AFP's relevance, feasibility, expected value, and the institutional and operational requirements for its future application.
- d. **Assess the strategic relevance and comparative advantage of AFP within mineral certification**, traceability, and due diligence systems, including its role as an independent scientific verification tool complementing chain-of-custody systems and its potential added value beyond certification, such as contributions to geological knowledge and resource governance.
- e. **Develop and critically assess implementation options for AFP**, including ICGLR-managed systems, decentralized implementation through Member State institutions, hybrid governance arrangements, and outsourcing to accredited third-party laboratories, including arrangements for database management, statistical evaluation, quality assurance, and potential scaling to additional Member States, management of suspected cases: reporting channels, ICGLR institutional mandates, and procedural frameworks or operational workflows.
- f. **Develop and assess financing and funding options for AFP**, including Member State contributions, user fee or cost-recovery mechanisms, integration into RCM certification fees, continued or transitional donor support, public-private partnerships, and hybrid financing models to ensure long-term sustainability.

- g. **Evaluate all implementation and financing options** against criteria such as **technical** feasibility, political acceptability, institutional sustainability, governance implications, cost efficiency, risk exposure, and long-term financial viability, explicitly highlighting trade-offs and key preconditions for implementation.
- h. **Provide strategic recommendations for ICGLR, Member States, BMZ, and GIZ** on the future of AFP, including a clearly justified preferred option or combination of options, an implementation roadmap with sequencing and milestones, indicative cost implications, and a clear delineation of institutional responsibilities to support decision-making on the future of AFP.

Milestones / Partial Works	Deadline / Place / Person Responsible	Criteria for Acceptance
Inception phase: Review of relevant documentation, refinement of methodology, stakeholder mapping, work plan, interview guide, and detailed schedule. Submission of an inception report and presentation to GIZ and ICGLR.	• Within 2 weeks of contract start. • Remote. • Contractor.	Inception report submitted and approved by GIZ; methodology, work plan, and stakeholder engagement approach considered fit for purpose.
Assessment and stakeholder consultations (a-d): Desk review and stakeholder interviews conducted with ICGLR, Member States, BGR, laboratories, development partners, and relevant private sector actors. Submission of a preliminary findings report.	• Within 12 weeks of contract start. • Remote and/or selected locations in the region ◦ Bujumbura/Burundi ◦ Dar Es Salam/Tanzania ◦ Kigali/Rwanda ◦ Kinshasa/DRC ◦ Entebbe, Uganda • Contractor.	Preliminary findings report submitted, including assessment of technical, institutional, operational, financial, and political dimensions of AFP; feedback worked in and key findings validated by GIZ.
Options analysis (e-h): Development and assessment of implementation, governance, and financing options for AFP, including evaluation of costs, risks, feasibility, and sustainability. Presentation of interim results to GIZ and ICGLR.	• Within 16 weeks of contract start. • Remote. • Contractor.	Draft options paper submitted and presented; options clearly assessed against agreed criteria and feedback from GIZ and ICGLR incorporated.
Final report and recommendations: Submission of final report (word format in English, French and Portuguese) including assessment findings, implementation and financing options, strategic recommendations, and proposed roadmap for the future of AFP. Presentation of final results to GIZ, ICGLR, and relevant stakeholders (PowerPoint format).	• Within 20 weeks of contract start. • Presentation at ICGLR Audit and Regional Committee Meeting in Nov/Dec 2027 (location tbd) • Contractor.	Final report (word format) incl. all comments worked in submitted and approved by GIZ; recommendations are evidence-based, actionable, and address technical, operational, institutional, political, and financial dimensions of AFP implementation. PowerPoint presentation developed for the Audit and

		Regional Committee meetings.
--	--	------------------------------

Period of assignment: from 16.11.2026 until 15.11.2027

4. Concept

In the tender, the tenderer is required to show *how* the objectives defined in Chapter 3 (Tasks to be performed) are to be achieved, if applicable under consideration of further method-related requirements (technical-methodological concept). In addition, the tenderer must describe the project management system for service provision.

Note: The numbers in parentheses correspond to the lines of the technical assessment grid.

Technical-methodological concept

Strategy (1.1): The tenderer is required to consider the tasks to be performed with reference to the **objectives** of the services put out to tender (see Chapter 1 Context) **(1.1.1)**. Following this, the tenderer presents and justifies the explicit strategy with which it intends to **provide the services** for which it is responsible (see Chapter 2 Tasks to be performed) **(1.1.2)**.

The tenderer is required to present the actors relevant for the services for which it is responsible and describe the **cooperation (1.2)** with them.

The tenderer is required to describe the key **processes** for the services for which it is responsible and create an **operational plan** or schedule **(1.4.1)** that describes how the services according to Chapter 2 (Tasks to be performed by the contractor) are to be provided. In particular, the tenderer is required to describe the necessary work steps and, if applicable, take account of the milestones and **contributions** of other actors (partner contributions) in accordance with Chapter 2 (Tasks to be performed) **(1.4.2)**.

5. Personnel concept

The tenderer is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 7), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points in the technical assessment.

Team leader

Tasks of the team leader

- Overall responsibility for the advisory packages of the contractor (quality and deadlines)
- Coordinating and ensuring communication with GIZ, partners and others involved in the project
- Regular reporting in accordance with deadlines

Qualifications of the team leader

- Education/training (2.1.1): University degree (German Diploma/Master or equivalent) in natural resource governance, political science, economics, public policy, international development, geology, mining engineering, or a related field.
- Language (2.1.2): C2-level language proficiency in English (7 points), C1-level language proficiency in French (3 points)
- General professional experience (2.1.3): 10 years of professional experience in natural resource governance, extractive industries, mineral certification, responsible sourcing, or related sectors.
- Specific professional experience (2.1.4): 7 years of experience in mineral traceability, certification systems, supply chain due diligence, or related analytical and advisory assignments.
- Leadership/management experience (2.1.5): 5 years of management and leadership experience as team leader, project manager, or lead consultant for complex multi-stakeholder assignments.
- Regional experience (2.1.6): 5 years of professional experience in Sub-Saharan Africa, including 2 years of experience in the African Great Lakes Region (preferably in the Democratic Republic of the Congo, Rwanda, Burundi, Uganda, or within regional organizations)
- Development cooperation (DC) experience (2.1.7): 5 years of experience in development cooperation projects funded by bilateral or multilateral donors.
- Other (2.1.8): 3 years of professional experience working with governments, regional organizations, private sector actors, and development partners on mineral governance and certification systems (5 points); 3 years of professional experience conducting institutional, political economy, governance, or feasibility assessments and developing strategic recommendations for policy and decision-makers (5 points).

Key expert 1

Tasks of key expert 1

- Assess the technical status and operational readiness of the AFP system, including laboratories, database management, and analytical processes.
- Review existing AFP infrastructure and identify technical and operational gaps.
- Assess implementation options, including ICGLR-managed, Member State-managed, and third-party service provider models.
- Analyse technical requirements, costs, risks, and sustainability of different AFP implementation scenarios.
- Support stakeholder consultations with technical institutions and relevant partners.
- Contribute to the development of recommendations on the future implementation and financing of AFP.
- Contribute to the drafting of the assessment report, power point presentation and final recommendations.

Qualifications of key expert 1

- Education/training (2.2.1): University degree (German Diploma/Master or equivalent) in geology, mineralogy, geochemistry, mining engineering, materials science, or a related field.
- Language (2.2.2): C2-level language proficiency in English (7 points), C1-level language proficiency in French (3 points)

- General professional experience (2.2.3): 7 years of professional experience in mineral analysis, geochemical research, or applied mineralogy.
- Specific professional experience (2.2.4): 5 years of hands-on experience with mineral traceability, Analytical Fingerprint methodology, ore sample analysis, LA-ICP-MS, SEM automated mineralogy, or similar analytical techniques applied to 3T minerals (tin, tantalum, tungsten). 5 years' experience in database management and statistical evaluation of mineralogical and geochemical data.
- Regional experience (2.2.6): 3 years of experience working in Sub-Saharan Africa, preferably in the Great Lakes Region (DRC, Rwanda, Burundi, Uganda) in the context of mineral extraction, certification, or supply chain verification
- Development Cooperation (DC) experience (2.2.7): 2 years of experience contributing to development cooperation projects or donor-funded initiatives in the extractive sector, resource governance, or traceability programs.

Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Socio-cultural skills
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

6. Costing requirements

Assignment of personnel and travel expenses

Per diem allowances are reimbursed as a lump sum up to the maximum amounts permissible under tax law for each country as set out in the country table in the circular from the German Federal Ministry of Finance on travel expense remuneration (downloadable from the [German Federal Ministry of Finance – tax treatment of travel expenses and allowances for international business travel as of 1 January 2026 \(GERMAN ONLY\)](#)).

Accommodation allowances are reimbursed as detailed in the specification of inputs below.

With special justification, additional Accommodation costs up to a reasonable amount can be reimbursed against evidence.

All business travel must be agreed in advance by the officer responsible for the project

Sustainability aspects for travel

GIZ has undertaken an obligation to reduce greenhouse gas emissions (CO₂ emissions) caused by travel. When preparing your tender, please incorporate options for reducing emissions, such as selecting the lowest-emission booking class (economy) and using means of transport, airlines and flight routes with a higher CO₂ efficiency. For short distances, travel by train (second class) or e-mobility should be the preferred option.

CO₂ emissions caused by air travel must be offset. GIZ specifies a budget for this, through which the carbon offsets can be settled against evidence.

There are many different providers in the market for emissions certificates, and they have different climate impact ambitions. The [Development and Climate Alliance \(German only\)](#) has published a [list of standards \(German only\)](#). GIZ recommends using the standards specified there.

Specification of inputs

Fee days	Number of experts	Number of days per expert	Total	Comments
Designation of TL	1	54	54	Remote/Home-based: 24 days Burundi: 5 days (incl travel) Tanzania 4 days (incl travel) DRC: 5 days (incl travel) Rwanda: 4 days (incl travel) Uganda: 4 days (incl travel) Present findings at ICGLR Audit or Regional Committee meeting (location tbd): 8 days (incl travel)
Designation of key expert	1	34	34	Remote/Home-based: 12 days Burundi: 5 days (incl travel) Tanzania 4 days (incl travel) DRC: 5 days (incl travel) Rwanda: 4 days (incl travel) Uganda: 4 days (incl travel)
Travel expenses	Quantity	Number per expert	Total	Comments
Fixed travel budget	1		30.000	A budget is earmarked for travel to the following countries: Burundi, Rwanda, DRC, Tanzania, Uganda A fixed budget of EUR 30.000 is earmarked for settling travel expenses against evidence.
CO ₂ compensation for air travel	1		650	A fixed budget of EUR 650 is earmarked for settling carbon offsets against evidence.
Other costs	Quantity	Price	Total	Comments

Flexible remuneration The contractually agreed individual rates (e.g. amount of air travel expenses) and type of settlement (against evidence or flat rate) may not be changed.	1		7000	A budget of EUR 7000 is foreseen for flexible remuneration. Please incorporate this budget into the price schedule. Use of the flexible remuneration item requires prior written approval from GIZ.
---	---	--	------	--

7. Inputs of GIZ or other actors

GIZ and/or other actors are expected to make the following available:

- Transportation on site with own project vehicle in Burundi, Tanzania, Rwanda, Uganda, DRC and other GLR countries
- Logistics for workshops

8. Requirements on the format of the tender

The structure of the tender must correspond to the structure of the ToR. In particular, the detailed structure of the concept (Chapter 3) should be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). The tender must be legible (font size 11 or larger) and clearly formulated. It must be drawn up in English.

The complete tender must not exceed 10 pages (excluding CVs). If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment. External content (e.g. links to websites) will also not be considered.

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages each. They must clearly show the position and job the proposed person held in the reference project and for how long. The CVs shall be submitted in English.

Please calculate your financial tender based exactly on the parameters specified in Chapter 5 Quantitative requirements. The contractor is not contractually entitled to use up the days, trips, workshops or budgets in full. The number of days, trips and workshops and the budgets will be contractually agreed as maximum limits. The specifications for pricing are defined in the price schedule.

9. Annexes

- 1) AFP Manual
- 2) AFP Application Scenarios
- 3) AFP Business Case Concept
- 4) SWOT Analysis
- 5) AFP Implementation Plan (Draft)
- 6) AFP Laboratory Market Study
- 7) Study on AFP Demand
- 8) AFP Database Final Proposal on Future
- 9) Final Report on the Status of BGR ICGLR AFP Project
- 10) Reports of the ICGLR Regional Committee (5)