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

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

INTERNAL

Project title: Circular Economy for Sustainable Urban Development in Albania.

Technical support for implementing key sludge laboratory operation and management functions - Agriculture University of Tirana

Project number/ cost centre:

G-012108-004

0. List of abbreviations

AG	Commissioning party
AN	Contractor
AVB	General Terms and Conditions of Contract for supplying services and work
FK	Expert
FKT	Expert days
KZFK	Short-term expert
ToRs	Terms of reference

1. Context

The "Circular Economy for Sustainable Urban Development in Albania" project aims to address challenges in shaping the transition to a circular economy. Led by the Ministry of Environment (MoE), this initiative aligns with the Core Area Climate and Energy - Just Transition, as well as EU Directives on Waste, Water, and Circular Economy. The module focuses on creating legal and financial foundations for transitioning to sustainable, circular economy-oriented waste and wastewater management. It contributes to the national implementation of the 2030 Agenda, especially SDGs 6, 11, 12, and 13. Targeting the Albanian population and professionals in ministries, authorities, municipalities, and the private sector, the project promotes sustainability and environmental stewardship within urban communities.

Key outputs of the project are:

Output 1: EU directive-compliant instruments

Output 2: Monitoring and Evaluation Capacities

Output 3: Extended Producer Responsibility (EPR)

Output 4: Implementation of circular economy measures

Output 5: Private sector participation

Output 2: Monitoring and Evaluation Capacities aims to improve the monitoring and evaluation capacities of national authorities. The results hypothesis is that decision-makers at national and municipal level will have an evidence-based and on essentials focused data basis for the informed development of the circular economy. Implementing regulations and laws as well as the implementation of circular economy measures in the waste and wastewater management are thus accelerated and form a further basis for the transition to a circular economy.

Albania faces significant challenges in managing its natural resources and addressing issues related to waste management and **wastewater treatment**. The ERRU **Performance Report 2024**[1] shows that Albania continues to face major challenges in the **wastewater subsector**. Despite progress with sector reform, coverage with **wastewater collection networks** remains limited, increasing only slightly from **54.8% in 2023 to 57% in 2024**. This means that nearly half of the population is still not connected to centralised sewerage collection systems.

The situation is even more critical regarding **wastewater treatment**. Although several WWTPs have been constructed with donor and government support, the report confirms that many plants operate **below design capacity** or remain **non-functional** due to operational, financial, and management challenges. Consequently, **a large share of collected wastewater continues to be discharged untreated**, contributing to groundwater and surface water pollution, including in sensitive coastal areas.

Investments in 2024 included sewerage expansion projects in urban and rural municipalities, but **sustainability of WWTP operation** remains a key barrier. High electricity costs

[1] ERRU Performance report for 2024; www.erru.al

(accounting for about **23% of O&M expenses**) and lack of qualified staff are among the main constraints.

To address these issues, comprehensive strategies are needed to expand wastewater treatment infrastructure, enforce regulatory standards, build capacity, foster public-private partnerships, and incentivize research and innovation. Through collaborative efforts and targeted interventions, Albania can achieve sustainable and resilient water and waste management systems, safeguarding public health and environmental quality for current and future generations.

The report emphasizes that the **low wastewater treatment rate and inadequate sludge management practices** remain critical obstacles to achieving **EU environmental and circular economy standards**. Establishing the **first national sludge analysis laboratory at the Agriculture University of Tirana**, supported by GIZ and the German Government, represents a strategic step to address these challenges. The laboratory will enhance **analytical capacity, data reliability, quality monitoring, and evidence-based planning**, thereby supporting improved WWTP performance, effective sludge management, and long-term financial and environmental sustainability.

In alignment with the Memorandum of Understanding (MoU) signed between the National Water Supply and Sewerage Agency (AKUK) and the Agriculture University of Tirana (AUT), the establishment and operation of the sludge analysis laboratory will be implemented within a structured framework of inter-institutional cooperation. The MoU defines the roles of AKUK and AUT in strengthening national technical and analytical capacities for sludge characterization, promoting data exchange, and supporting policy development aligned with EU standards and circular economy principles.

To ensure a functional and sustainable laboratory, the GIZ project Circular Economy for sustainable urban development seeks collaboration with a specialized institution/company to provide **technical assistance** for implementing essential laboratory management components listed in points 5 to 9 of the starter checklist.

The overall objective of this assignment is to ensure effective operation of the sludge laboratory through the following processes:

- Establish and validate **analytical methods** aligned with EU standards.
- Training of the sludge laboratory staff for SOP and health and safety protocols.
- Develop and implement a comprehensive **quality management system**.
- Implement **health and safety protocols** to ensure laboratory and environmental protection.
- Build **financial sustainability models** and budgeting practices for the sludge laboratory operation.

2. Tasks to be performed by the contractor

The contractor is responsible for providing the following services:

A. Method development & SOPs

- Develop standard operating procedures (SOPs) for priority sludge analysis methods (e.g. dry matter, volatile solids, heavy metals, nutrients and sample preparation), adapted to the installed instruments and laboratory workflow. The final list of SOPs shall be confirmed during inception. ~~Develop standard operating procedures (SOPs) for priority sludge analysis methods (e.g., dry matter, volatile solids, heavy metals).~~

- Validate or verify analytical methods, as applicable to the existing laboratory setup, including precision, detection limits, reproducibility and fit-for-purpose documentation ~~Validate analytical methods (precision, detection limits, reproducibility).~~
- Provide hands-on training (up to 15 staff members from AUT, AKUK and selected regional water utilities operating wastewater treatment plants).

B. Quality management

- Develop a quality manual aligned with ISO/IEC 17025 principles.
- Design tools for maintaining calibration logs, training records, and quality control documentation.
- Provide practical coaching on internal quality assurance processes, including guidance for conducting internal audits. ~~Provide coaching for conducting internal audits and preparing for accreditation.~~

C. Health, safety & environment (HSE)

- Draft a chemical safety plan specific to sludge and wastewater matrices.
- Conduct a laboratory risk assessment.
- Deliver staff training on personal protective equipment (PPE), hazardous waste handling, and emergency response.

D. Digital tools & data management

- Propose a concept for the laboratory information management system.
- Ensure compatibility with national reporting systems (AKUK, NEA, AMBU etc).

E. Training scope and participants

- In addition to the training of AUT laboratory staff, the contractor shall expand the training activities to include relevant national stakeholders involved in wastewater treatment and sludge management. The contractor shall organize and deliver training sessions for up to fifteen (15) participants, including AUT laboratory personnel (4 participants full training package),, experts from the National Water Supply and Sewerage Agency (AKUK), and technical representatives from selected water utilities operating wastewater treatment plants (WWTPs) (up to 11 participants only basic knowledges about sample tacking and relevant procedure).

- The training shall cover standard operating procedures (SOPs), quality management principles aligned with ISO/IEC 17025, and health, safety, and environmental (HSE) protocols. The purpose of this broader participation is to ensure harmonized understanding and practical application of sludge sampling, analysis, and management procedures across institutions. The approach fosters cross-institutional cooperation, promotes knowledge transfer between laboratory and operational levels, and strengthens the national sludge monitoring and management framework.

Milestones, as laid out in the table below, are to be achieved during the contract term and delivered in English language:

Milestones	Deadline
Short Inception Report	**Up to 2 weeks** after contract conclusion, including review of available equipment, existing documentation/SOPs and calibration/QA status. ~~**1 week** after contract conclusion~~
Full SOP package and validated methods.	Up to **4 weeks** after the approved inception report
Quality Manual and templates for audits and calibration	Up to **6 weeks** after the approved inception report
HSE plan and risk assessment report	Up to **8 weeks** after the approved inception report
Training report	Up to **10 weeks** after the approved inception report

Period of assignment: from **End of July 2026** until **15.11.2026**.

3. Concept

In the tender, the tenderer is required to show *how* the objectives defined in Chapter 2 (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 present and explain its approach to **steering** the measures with the project partners (1.3.1) and its contribution to the **results-based monitoring system** (1.3.2).

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).

The tenderer is required to describe its contribution to knowledge management for the partner (1.5.1) and GIZ and to promote scaling-up effects (1.5.2) under **learning and innovation**.

Project management of the contractor (1.6)

The tenderer is required to explain its **approach for coordination with the GIZ project** (1.6.1). In particular, the project management requirements specified in Chapter 2 (Tasks to be performed by the contractor) must be explained in detail.

The tenderer is required to draw up a **personnel assignment plan** (1.6.2) with explanatory notes that list all the experts proposed in the tender; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

The tenderer is required to describe its **backstopping concept** (1.6.3), including technical and administrative support mechanisms ensuring continuity, quality assurance, and timely delivery of services. The tenderer shall specify the roles and responsibilities of backstopping personnel and include their CVs as part of the tender submission.

The tenderer is required to describe how **cross-cutting aspects** (1.7) such as sustainability, capacity development, and knowledge transfer are integrated into the implementation approach.

4. 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 - Full SOP package and validated methods

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
- Draft a minimum of 8 SOPs (e.g. EN 12880, EN 12879, EN 12902, heavy-metal suite, TN, TP, pathogens and sample preparation), with the final SOP list confirmed during inception.
  ~~Draft 8 SOPs (EN 12880, 12879, 12902, heavy-metal suite, TN, TP, pathogens, sample prep).~~
- On-site method validation.
- 8 days of hands-on staff training.
- Regular reporting in accordance with deadlines

Qualifications of the team leader

- Education/training (2.1.1): University degree (Master) in chemical engineering, biology, biotechnology, environmental science or a related field (required).
- A PhD in a relevant field will be considered an additional asset and will be awarded a higher score within this criterion.
- Language (2.1.2): C1-level language proficiency in English language.
- General professional experience (2.1.3): 8 years of professional experience in environmental laboratory operation, applied environmental analytics, sludge/wastewater/soil analytics or comparable environmental research and testing and developing SOPs
  ~~10 years of professional experience in the environment (wastewater, sludge, soil etc) laboratory operation sector. Experience in developing SOPs in the last 5 years.~~
- Specific professional experience (2.1.4): 5 years of experience in designing, operating, supporting or quality-assuring environmental laboratories or applied environmental analytical methods relevant to wastewater, sludge, soil or comparable matrices.
  ~~5 years in designing and operation of environment (wastewater, sludge, soil etc) laboratories.~~
- Leadership/management experience (2.1.5): 5 years of management/leadership experience as project team leader, work-package leader or manager in a company, applied research institute, university institute or comparable organization.
  ~~5 years of management/leadership experience as project team leader or manager in a company~~
- Regional experience (2.1.6):
  - 3 years of experience in the Western Balkans, EU candidate countries or comparable transition contexts.

  ~~3 years of experience in projects in Balkan (region).~~
- Development cooperation (DC) experience (2.1.7): 3 years of experience in development cooperation, publicly funded international cooperation, institutional capacity development or projects with public/academic partners.
  ~~3 years of experience in DC projects.~~

Key expert 1 - Quality Manual and templates for audits and calibration

Tasks of key expert 1

- Quality Manual + 12 procedure templates.
- Provide practical coaching and up to three (3) days of on-the-job training on the implementation of the Quality Manual, use of documentation templates, and preparation for internal audits.
- Internal audit & coaching.
- ISO/IEC 17025 pre assessment dossier.

Qualifications of key expert 1

- Education/training (2.2.1): University degree (master) in chemical engineering, biology, biotechnology, environment engineering or any other related field.
- Language (2.2.2): C1 -level language proficiency in English language.
- General professional experience (2.2.3): 5 years' experience in environmental laboratory operation, applied environmental analytics, QA/QC systems, ISO/IEC 17025 preparation or laboratory capacity development.
  ~~5 years' experience in environmental laboratory operation.~~

- Specific professional experience (2.2.4): 3 years of experience in designing, operating, supporting or quality-assuring wastewater, sludge, soil or comparable environmental laboratories, including preparation of quality manuals, documentation templates or audit tools.
  ~~3 years of experience in designing and operation of wastewater, sludge, soil etc. laboratory.~~
- Leadership/management experience (2.2.5): n.a
- Regional experience (2.2.6): n.a
- Development Cooperation (DC) experience (2.2.7): n.a

Key expert 2 - HSE plan and risk assessment report

Tasks of key expert 2

- Chemical safety plan, risk register.
- 3 days of staff training.

Qualifications of key expert 2

- Education/training (2.3.1): University degree (master) in chemical engineering, biology, biotechnology, environment engineering or any other related field.
- Language (2.3.2): C1 -level language proficiency in English language.
- General professional experience (2.3.3): 5 years' experience in environmental laboratory operation, applied environmental analytics, laboratory HSE or related environmental risk management.
  ~~5 years' experience in environmental laboratory operation.~~
- Specific professional experience (2.3.4): 3 years of experience in designing, implementing or advising on health and safety management plans/risk assessments for environmental laboratories, wastewater/sludge laboratories or comparable facilities
  ~~3 years of experience in designing and operation of health and safety management plan for the environmental laboratories (wastewater, sludge, soil etc.).~~
- Leadership/management experience (2.3.5): n.a
- Regional experience (2.3.6): n.a
- Development Cooperation (DC) experience (2.3.7): n.a

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

5. 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 2025 (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 (CO_2 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 CO_2 efficiency. For short distances, travel by train (second class) or e-mobility should be the preferred option.

CO_2 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	Training Days[2]	Other Activities (SOPs, reports, coordination, etc.)	Total	Comments
Team leader - Full SOP package and validated methods	1	**25 ~~18~~**	***8***	***17 ~~10~~***	**25 ~~18~~**	
Key expert 1 - Quality Manual and templates for audits and calibration	1	**14 ~~10~~**	***3***	***11 ~~7~~***	**14 ~~10~~**	
Key expert 2 - HSE plan and risk assessment report	1	**10 ~~7~~**	***3***	***7 ~~4~~***	**10 ~~7~~**	
Travel expenses[3]	**Quantity**	**Number per expert**			**Total**	**Comments**
Per-diem allowance in country of assignment	**14**	TL - 8 days KE1 - 3 days KE2 - 3 days + travel days			**18**	
Overnight allowance in country of assignment	**14**	TL - 8 days KE1 - 3 days KE2 - 3 days + travel days			**18**	

[2] The training days indicated in the expert input table will cover sessions for all identified participants (AUT, AKUK, and water utility staff) without changing the total number of expert-days or the overall assignment budget. The analytical training (TL, Key Expert 1) and HSE training (Key Expert 2) are organized as combined sessions in the lab-focused (AUT lab) + field-oriented (WWTPs).

[3] Only selected activities (method validation and on-site training) require physical presence in Albania. SOP drafting, reporting, and coordination are implemented remotely.

Transport	Quantity	Number per expert	Total	Comments
International flights[4] **Albania**	**4**	TL – 2 Flights KE1 - 1 Flight KE2 – 1 Flight	**4**	Travel to the place of service delivery
CO_2 compensation for air travel	**4**	TL – 2 Flights KE1 - 1 Flight KE2 – 1 Flight	**4**	A fixed budget of EUR **400** is earmarked for settling carbon offsets against evidence.
Travel expenses (car)[5] • Carrental from Tirana to Agriculture University of Tirana.	**8**	TL – 8 days KE1 - 3 days KE2 – 3 days	**8**	Travel within the country of assignment, transfer to/from airport etc.
Other costs	**Number**	**Price (Euro)**	**Total (Euro)**	**Comments**
Workshops[6]	**2**	2,000	**4,000**	The budget contains the following costs: 1. Room rent. 2. Translation cost. 3. Printing of materials. 4. Lunch, coffee. Reimbursed based on actual costs within a ceiling budget
Flexible remuneration item	**1**	3,000	**3,000**	Flexible budget line to cover additional expert days, travel or workshops, subject to prior GIZ approval.

[4] International round trips (Germany–Albania–Germany).
[5] Shared use across missions. For three days all experts will share the same car. All in total only 8 days required.
[6] Participant travel costs are covered by the sending institutions and are not included in the workshop budget.

6. Workshops, events and trainings

The contractor implements the following workshops/training courses:

In addition to the training of AUT laboratory staff, the contractor shall expand the training activities to include relevant national stakeholders involved in wastewater treatment and sludge management. The contractor shall organize and deliver training sessions for up to fifteen (15) participants, including AUT laboratory personnel, experts from the National Water Supply and Sewerage Agency (AKUK), and technical representatives from selected water utilities operating wastewater treatment plants (WWTPs).

The training[7] shall cover standard operating procedures (SOPs), quality management principles aligned with ISO/IEC 17025, and health, safety, and environmental (HSE) protocols. The purpose of this broader participation is to ensure harmonized understanding and practical application of sludge sampling, analysis, and management procedures across institutions. The approach fosters cross-institutional cooperation, promotes knowledge transfer between laboratory and operational levels, and strengthens the national sludge monitoring and management framework.

7. Inputs of GIZ or other actors

GIZ and/or other actors are expected to make the following input available to support the implementation of the assignment:

- **Overall coordination and contract management** through the GIZ project *Circular Economy for Sustainable Urban Development in Albania*, including approval of deliverables and coordination with national partners.
- **Access to laboratory facilities** at the Agriculture University of Tirana (AUT), including laboratory premises, basic utilities (electricity, water, ventilation), and already procured sludge laboratory equipment.
- **Facilitation of coordination with partner institutions**, in particular:
    - Agriculture University of Tirana (AUT),
    - National Water Supply and Sewerage Agency (AKUK),
    - Selected water utilities operating wastewater treatment plants.
- **Support in organizing training activities**, including:
    - Identification and invitation of participants,
    - Coordination with AUT and AKUK for training schedules.
- **Provision of relevant background documents and data**, including:
    - Existing laboratory layouts and equipment lists,
    - Relevant national regulations, guidelines, and reporting requirements,

[7] Two training workshops foreseen.

  - Available documentation related to the MoU between AKUK and AUT.
- **Logistical support where feasible**, such as:
  - Assistance with access to meeting or training rooms at AUT or partner institutions,
  - Support with local coordination for site visits.

Unless otherwise agreed, **GIZ will not provide project vehicles, accommodation, or travel arrangements** for the contractor. These shall be covered by the contractor in accordance with Chapter 5 (Costing requirements).

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 (language).

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 can also be submitted in English (language).

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

Information Note for Bidders

Status of the Sludge Analysis Laboratory and Installed Equipment

This information note is provided to inform bidders that the sludge analysis laboratory at the **Agriculture University of Tirana (AUT)** is **already established, equipped, and ready for operation**.
The assignment under these Terms of Reference focuses exclusively on **operationalization, method validation, quality management, HSE systems, and training**, and **does not include laboratory construction or equipment procurement**.

Laboratory Readiness

At the time of tender publication:

- Laboratory premises are fully available and functional
- Utilities (electricity, water, ventilation, drainage) are installed and operational
- Laboratory spaces allow separation of key functions (sample reception, preparation, analysis, storage)
- Core sludge laboratory equipment has been delivered and installed
- The laboratory is ready for on-site method validation and hands-on training

Bidders may assume **full physical access** to the laboratory during the contract period.

Summary of Installed Equipment

The laboratory is equipped to perform **physical and chemical sludge analyses**, aligned with EU standards, including:

- **Sample preparation & handling:** drying ovens, balances, homogenization tools, laboratory glassware
- **Thermal/gravimetric analysis:** muffle furnace for volatile solids and ash content
- **Chemical analysis:** digestion and preparation equipment; instrumentation suitable for heavy metals and nutrient analysis (e.g. TN, TP)
- **Supporting infrastructure:** fume hoods, ventilation systems, sample storage and basic IT infrastructure

Implications for the Scope of Services

- SOPs, validation activities, quality systems, and HSE procedures must be **adapted to the existing laboratory setup and equipment**
- Method development focuses on **optimization, validation, and documentation**, not equipment selection
- Training activities shall be **practical and hands-on**, using installed instruments

Key instruments installed already in the sludge lab are as follows:

Article
Horizontal flow Oven witeg WOF (over 250°C,50L)
pH/Conductivity Multi-Meter
Horizontal Platform shaker iShak PS 10/20 NXT.
Kjeldahl Digestor SH420F& Automatic Kjeldahl Distillation Unit.
Heating Block
Double Beam UV-Vis Spectrophotometer LUS-B32.
Microwave Digestion System MDS-T12.
Digestion Vessels (for Pressurized Microwave Digestion)
Atomic absorption spectrometer (AAS). *AA-7020 Atomic Absorption Spectrometer Automatic flame/graphite furnace.*
Piston compressor for compressed air, with constant and clean pressure for atomic absorption spectrophotometers. with two oil-free cylinders.
Analytical Balance (0.1 mg sensitivity)
Desiccator
Muffle Furnace