

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

CONFIDENTIAL

Technical Assistance for Waste Logistics System Strengthening and Policy Recommendations Formulation to Support the Sustainability of Waste Treatment Facilities	Project number/ cost centre: S-011952-023
SFF – CE Technical Support Hub	Tender number 10036052

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0. List of abbreviations

AVB	General Terms and Conditions of Contract for GIZ
BMZ	German Federal Ministry for Economic Cooperation and Development
CAPEX	Capital Expenditure
DC	Development Cooperation
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
OPEX	Operational Expenditure
PSEL	Waste-to-Energy Plant (Pengolahan Sampah menjadi Energi Listrik)
RDF	Refuse-Derived Fuel
SWM	Solid Waste Management
ToRs	Terms of reference
TPS3R	Waste Sorting and Processing Facility (Tempat Pengolahan Sampah Reduce-Reuse-Recycle)
TPST	Integrated Waste Treatment Facility (Tempat Pengolahan Sampah Terpadu)

1. Context

Indonesia's waste management sector continues to face persistent challenges, particularly regarding the limited coverage of collection services, inefficient and poorly coordinated collection and transportation routes, and a fragmented logistics chain that fails to move waste consistently from source to treatment facility. These challenges have consequences for the viability of waste treatment infrastructure. The expanding facilities such as Integrated Waste Treatment Centres (TPST) and Waste-to-Energy (PSEL) are costly investments that depend on a reliable, continuous feedstock supply in the right volume and composition to operate as designed.

Without a well-planned and well-managed waste logistics system, a persistent mismatch emerges between the capability and capacity of the processing facilities and actual waste flow to be processed each day. This undermines both the operational performance of the facility and the financial case for investment. This is further compounded by the underutilisation of existing intermediate infrastructure, including transfer stations, TPS3R, and material recovery facilities, which if better integrated into a coordinated logistics chain, could significantly improve system efficiency and feedstock reliability.

Within this context, the SFF – Circular Economy Technical Support Hub serves as a strategic platform embedded in Bappenas, bridging technical and financial cooperation to support the transition from early-stage concepts toward structured, investment-oriented interventions. Building on technical outputs and institutional insights generated under previous Gap Fund interventions, particularly through the ERIC-DKTI project, the SFF is now positioned to anchor the next phase of engagement. This requires translating existing outputs into coherent analytical and documentation packages, strengthening project development pathways, and ensuring that technical support is strategically aligned with financing entry points and national development priorities, including the Blue Book and Green Book processes.

Against this investment backdrop, effective waste management is not only about the construction of treatment facilities. It depends equally on the system that feeds them, a waste logistics system encompassing collection, sorting, temporary storage, transportation, transfer, and final delivery to processing. In Indonesia, this chain is governed by overlapping mandates, inconsistent service standards, and infrastructure gaps that limit the volume and quality of waste reaching treatment facilities. Strengthening this system requires more than operational fixes; it requires understanding waste logistics as an integrated, manageable system with its own infrastructure, human resources, information, and financing requirements.

When well-designed, a waste logistics system does not merely move waste, but structures material flows in ways that actively support circular economy objectives, enabling sorting, recovery, and reuse at multiple points along the chain (see Figure 1). This potential remains largely unrealised in Indonesia, where logistics planning and circular economy policy have developed on largely separate tracks. Strengthening this system is therefore a prerequisite for regional readiness to develop waste treatment infrastructure that is both operationally feasible and financially sustainable.

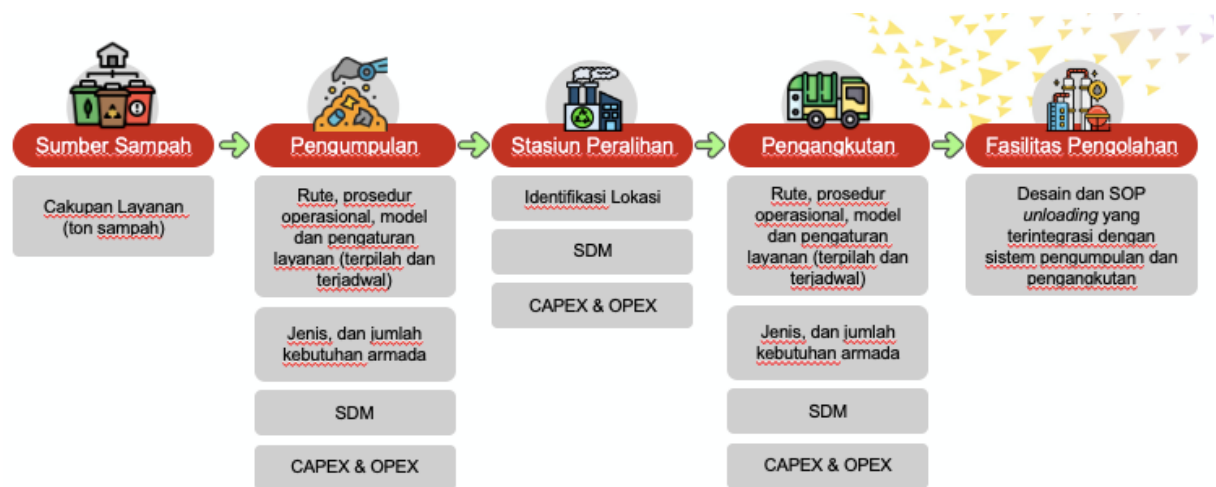


Figure 1 Scope of the Waste Logistics System

Therefore, a structured technical study is required to support Bappenas and relevant government counterparts in deepening their understanding of the operational, institutional, and financing dimensions of waste logistics system strengthening, and in identifying practical options for improving the feedstock supply to waste treatment facilities across different city and district typologies.

2. Task to be performed by the contractor

The objective of this assignment is to provide technical guidance and policy inputs to strengthen the waste logistics system in Indonesia, with a view to improving the reliability and efficiency of waste supply to treatment facilities and creating the enabling conditions for sustainable infrastructure investment. More specifically, the study aims to:

- Provide **actionable guidance on strengthening the waste logistics system**, covering the full flow of waste and supporting resources from collection source to treatment facility in a manner that is efficient, cost-effective, and scalable.
- Formulate **national-level policy recommendations** that clarify the roles and responsibilities of relevant ministries in advancing waste logistics system strengthening, with attention to multi-ministerial coordination.
- Identify **specific infrastructure investment opportunities** with potential for follow-on financing, specifying the type, scale, and indicative investment values.

The contractor shall carry out a structured desk study, drawing on existing datasets, national standards and regulations, and available analytical tools, to produce four interrelated deliverables addressing the technical, operational, policy, and financing dimensions of waste logistics system strengthening in Indonesia. More specifically, the contractor will carry out the following tasks:

Task 1. Waste Logistics System Strengthening

Develop a comprehensive operational analysis of the waste logistics system, covering:

- The relationship between transport distance, operational time, fleet type and size, collection frequency, and their implications for CAPEX and OPEX.
- Efficient distance and time calculations across each segment of the waste service chain.
- Cost modelling for a source-separated, scheduled collection system across different service chain configurations.
- Service zone design models, including scheduled and separated collection arrangements, transportation management, and route optimisation.

- Determinants of collection and transportation system typology by area, considering city scale, waste generation volume, population density and settlement type, distance to processing facility, road accessibility, and facility type (RDF, TPST, PSEL).
- Technical design and operational procedures for waste unloading at TPST/PSEL facilities, integrated with a segregated and scheduled waste collection system.

The analysis shall enable local governments to understand operational trade-offs across logistics approaches, including direct hauling versus transfer-based systems, effective service radius thresholds, and the conditions under which specific models become operationally inefficient.

Task 2. Service Cooperation Scheme Assessment

Develop and compare service delivery models for waste logistics system, covering:

- Full local government management.
- Private operator and outsourcing models.
- Fleet leasing arrangements.
- Hybrid schemes combining public and private roles.

Each model shall be assessed against relevant operational and financial considerations applicable to Indonesian local government contexts.

Task 3. Policy and Governance Recommendations

Formulate national-level policy recommendations addressing:

- Key policy measures needed to strengthen the waste logistics system in support of sustainable waste treatment facility operation.
- The specific roles and functions of relevant ministries in advancing waste logistics system strengthening, with attention to multi-ministerial coordination requirements and gaps.

Task 4. Infrastructure Financing Recommendations

Based on the findings of the previous tasks, identify specific infrastructure investment opportunities with potential for follow-on financing, specifying:

- The type and quantity of infrastructure with financing potential.
- Indicative investment values and the basis for prioritisation.

The following table gives an overview of the envisioned deliverables:

Milestones/ Deliverables	Description	Criteria for Acceptance	Deadline
Task 1. Waste Logistics System Analysis Report	Report covering operational parameters and cost modelling of the waste logistics system, including service zone design, route optimisation, fleet sizing, and unloading procedures at TPST/PSEL facilities. Accompanied by a presentation slide deck for stakeholder dissemination.	Up to 30 pages (report) Up to 10 slides (slide deck)	Month 3

Milestones/ Deliverables	Description	Criteria for Acceptance	Deadline
Task 2. Service Cooperation Scheme Assessment Report	Report presenting a comparative assessment of service delivery models for waste logistics operations, with operational and financial considerations for each model. Accompanied by a presentation slide deck for stakeholder dissemination.	Up to 20 pages (report) Up to 7 slides (slide deck)	Month 3
Task 3. Policy and Governance Recommendations Report	Report presenting national-level policy recommendations with ministerial role mapping and multi-ministerial coordination gap analysis. Accompanied by a presentation slide deck for stakeholder dissemination.	Up to 20 pages (report) Up to 7 slides (slide deck)	Month 4
Task 4. Infrastructure Financing Recommendations Report	Report identifying infrastructure investment opportunities with financing potential, specifying type, quantity, and indicative investment values.	Up to 20 pages	Month 4
Task 5. Final Report	Consolidated report summarising all findings and recommendations across all deliverables, including an executive summary. Accompanied by a final presentation slide deck.	Up to 50 pages (report) Up to 10 slides (slide deck)	Month 4

Period of assignment: from **13.07.2026 to 06.11.2026**

All deliverables are to meet the following quality indicators in addition to assessment of the technical correctness of the deliverables:

- Excellent editing (spelling, grammar)
- Comprehensive structuring
- Clear account of methodology
- Labelling of figures and tables (legible), all the figures and graphs formatted such as they can be read in black and white
- All the tables should be delivered in one Excel document, containing one table per sheet and following the same numbering and order they appear in the text. The file should also contain all the calculation and formulas and clear explanation of the methodologies and calculations performed
- Inclusion of SFF, GIZ, Bappenas, and service provider logos
- Excellent referencing of content resources
- Fulfilment of all requirements as stipulated by this ToR (including supporting documents where relevant)
- The above-mentioned requirements regarding the content of the report(s) should be considered minimum requirements. However, the final version of the documents should be approved by

GIZ, and it is the consultant's responsibility to make any adjustments, clarifications and provide additional information requested.

- All report and slides should be in the standard SFF/GIZ template format.

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 develop a concept that shows how the cooperation with the actors is to be established and put into practice. The project's cooperation arrangements referred to in this ToR must be taken into consideration.

The tenderer is required to present and explain its approach to **steering (1.3)** the measures with the project partners (1.3.1).

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. In particular, the project management requirements specified in Chapter 2 (Tasks to be performed by the contractor) must be explained in detail.

- The contractor is responsible for selecting, preparing, and steering the experts assigned to perform the advisory tasks.
- The contractor makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The contractor manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.

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

The bidder is required to describe its backstopping concept. The following services are part of the standard backstopping package, which (like ancillary personnel costs) must be factored into the fee schedules of the staff listed in the tender in accordance with Section 3.3.1 of the GIZ AVB:

- Service-delivery control
- Managing adaptations to changing conditions
- Ensuring the flow of information between the tenderer and GIZ
- Assuming personnel responsibility for the contractor's experts
- Process-oriented steering for implementation of the commission
- Securing the administrative conclusion of the project

Further requirements (1.7)

The tenderer is expected to demonstrate strong experience in working closely with national government counterparts in Indonesia, particularly in the solid waste management sector, including familiarity with the institutional landscape and coordination dynamics across relevant technical ministries such as Kementerian PU, KLHK, Kemendagri, and Bappenas.

The tenderer should also demonstrate the ability to work collaboratively with national counterparts and relevant stakeholders to ensure that outputs and recommendations are practically oriented and aligned with national policy priorities.

4. Personnel concept

The tenderer is required to provide personnel who are suited to filling the positions described, based on 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: Senior SWM Expert

Task of the team leader:

- Provide overall technical and managerial leadership for the assignment.
- Ensure timely and high-quality delivery of all outputs and deliverables.
- Lead the development of methodologies, analytical frameworks, and quality assurance processes.
- Supervise and coordinate all experts assigned to the assignment.
- Lead stakeholder engagement with Bappenas, relevant ministries, GIZ, and other stakeholders.
- Lead the development of recommendations on waste logistics systems, governance arrangements, service delivery models, and infrastructure investment opportunities.
- Review, consolidate, and approve all reports, presentations, and technical outputs. Ensure consistency and coherence across all assignment outputs.

Qualifications of Team Leader:

- Education/training (2.1.1): University qualification (Master) in waste management, environmental protection, engineering, or other relevant fields.
- Language (2.1.2): Knowledge of English language C1 in the Common European, Bahasa Indonesia, native or level C2 in the Common European
- General professional experience (2.1.3): 15 years of professional experience in engineering preferably in the solid waste management sector
- Specific professional experience (2.1.4): 10 years of experience in solid waste management, waste-to-energy treatment plant, and/or circular economy, knowledge of EU Taxonomy particularly waste projects that are Paris-aligned is preferred.

- Leadership/management experience (2.1.5): 5 assignments as team leader within the last 5 years (responsible for projects with budget of 50,000 EUR or more and leading 3 staff members or more) or 5 years of management/leadership experience as manager in a company (leading 3 staff members or more).
- Development cooperation (DC) experience (2.1.7): 5 years of experience working on DC projects (reference projects with an assignment time (full-time months worked) of three months or more within one calendar year will be assessed as one year of work experience).

Key Expert 1: SWM Technical Operation Expert

Task of Key Expert 1:

- Lead the technical assessment of waste logistics systems in Indonesia.
- Analyse waste collection, transfer, transportation, and treatment processes.
- Develop logistics system models and operational scenarios.
- Assess route optimisation, fleet requirements, service coverage, and operational efficiencies.
- Develop service zone concepts and collection system typologies.
- Assess operational requirements for TPST, RDF, and PSEL facilities.
- Contribute to policy recommendations and investment prioritisation from a technical perspective.
- Contribute to reports and presentations related to the topical
- Support stakeholder consultations and technical discussions.

Qualifications of Key Expert 1:

- Education/training (2.2.1): University qualification in civil/environmental engineering or other relevant fields.
- Language (2.2.2): Knowledge of English language C1 in the Common European, Bahasa Indonesia, native or level C2 in the Common European
- General professional experience (2.2.3): 3 years of professional experience in solid waste management sector.
- Specific professional experience (2.2.4): 2 years of experience in strategic planning in waste management, implementation of solid waste management or circular economy projects, and/or studies in solid waste management or circular economy.

Key Expert 2: SWM Budgeting Expert

Task of key Expert 2:

- Lead financial and economic analysis related to waste logistics systems.
- Develop CAPEX and OPEX modelling for alternative logistics system scenarios.
- Assess financing requirements and affordability considerations.
- Identify infrastructure investment needs and estimate indicative investment values.
- Analyse different service delivery and cooperation schemes from a financial perspective.
- Develop financing recommendations and prioritisation criteria.
- Support preparation of infrastructure investment opportunity pipelines.
- Contribute to reports and presentations related to financing and budgeting aspects.
- Contribute to reports with both national and local context and data.
- Support the planning of stakeholder engagement activities and actively engaging with relevant stakeholders to ensure smooth implementation.

Qualifications of Key Expert 2:

- Education/training (2.3.1): University qualification in civil/environmental engineering, finance, economics or other relevant fields.

- Language (2.3.2): Knowledge of English language C1 in the Common European, Bahasa Indonesia, native or level C2 in the Common European
- General professional experience (2.3.3): 3 years of professional experience in solid waste management sector or urban infrastructure financing.
- Specific professional experience (2.3.4): 2 years of experience in strategic planning in waste management, implementation of solid waste management or circular economy projects, and/or infrastructure cost modelling, financial analysis, or budgeting in the waste or urban infrastructure sector.

Key Expert 3: Junior SWM Expert

Task of the Junior SWM expert:

- Support data collection, validation, and analysis activities.
- Conduct desk reviews of policies, regulations, technical reports, and relevant studies.
- Compile and organise national and local government data.
- Support stakeholder mapping and engagement activities.
- Prepare meeting notes, technical summaries, and presentation materials.
- Contribute to drafting technical reports and recommendations.
- Support the preparation of case studies and good practice examples.
- Assist the Team Leader and Key Experts in carrying out day-to-day technical activities

Qualifications of Key Expert 3:

- Education/training (2.4.1): University qualification in environmental engineering, urban planning, geography, sanitation, or other relevant fields.
- Language (2.4.2): English proficiency at B2 level and Bahasa Indonesia at C2/native level.
- General professional experience (2.4.3): 3 years of professional experience in solid waste management or urban infrastructure sector.
- Specific professional experience (2.4.4): 2 years of experience in supporting municipal solid waste management studies or projects.
- Other (2.4.8): Strong analytical and reporting skills, including preparation of technical documentation and presentation materials.

5. Costing requirements

Specification of Inputs

Fee days	Number of experts	Number of days per expert	Total	Comments
Team Leader	1	Up to 35	Up to 35	Timesheet and completion of report
Key Expert 1: SWM Technical Operation Expert	1	Up to 50	Up to 50	Timesheet and completion of report
Key Expert 2: SWM Budgeting Expert	1	Up to 35	Up to 35	Timesheet and completion of report
Key Expert 3: Junior SWM Expert	1	Up to 20	Up to 20	Timesheet and completion of report

Other costs	Number	Price	Total	Comments
Flexible remuneration	1	Up to IDR 10.000.000	Up to IDR 10.000.000	A budget of IDR 10.000.000 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.

6. 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 30 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.

Please calculate your financial tender based exactly on the parameters specified in Chapter 5 costing 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.

7. Organisational matters

Place of Assignment: Jakarta

Payment modalities: Payment for the assignment will be made in one instalment upon completion of the assignment, considering satisfactory results and the submission of the required deliverables by the contractor.

Failure to complete work: GIZ reserves the right to cancel the remainder of the contract if the deliverable output does not meet ToR requirements and standards of quality e.g. if Task 1 is completed unsatisfactorily, GIZ is only liable to pay for Task 1 and can cancel the contract for the remaining Tasks.

The contractor shall report directly to the GIZ SFF – CE Technical Support Hub team.