



**USAID Indonesia Urban Water Sanitation and Hygiene
Penyehatan Lingkungan Untuk Semua**

Request For Proposal (RFP)

No. REQ-JAK-21-0020

**Service Provider for Enhancing Capacity Building for Sanitation
through E-learning**

Issue Date: May 6, 2021

WARNING: Prospective Offerors who have received this document from a source other than the USAID –IUWASH PLUS Project, IUWASH_Plus_Procurement@dai.com, should immediately contact IUWASH_Plus_Procurement@dai.com and provide their name and mailing address in order that amendments to the RFP or other communications can be sent directly to them. Any prospective Offeror who fails to register their interest assumes complete responsibility in the event that they do not receive communications prior to the closing date. Any amendments to this solicitation will be issued and posted (www.iuwashplus.or.id)

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Synopsis of the RFP

1. RFP No.	RFP REQ -JAK-21-0020
2. Issue Date	May 6, 2021
3. Title	Service Provider for Enhancing Capacity Building for Sanitation through E-learning
4. Issuing Office & Email/Physical Address for Submission of Proposals	USAID – IUWASH PLUS Jakarta Office Gedung Mayapada Tower 1, 10th Floor, Jl. Jend. Sudirman Kav. 28, Jakarta 12920; Email : IWPLProc_InboxJKT@dai.com
5. Bidders' Conference	May 18, 2021 at 9.00 a.m. via Zoom Link as follows : Topic: Prebid E-Learning Development - Sanitation Time: May 18, 2021 09:00 AM Jakarta Join Zoom Meeting https://us02web.zoom.us/j/2233222386?pwd=M3RiMEVks1Y3YUZHcFRUYzJQTjVHQT09 For bidders who interest to join pre bid, please send confirmation of attendance to : IUWASH_Plus_Procurement@dai.com At May 17. 2021 at the latest 16.00 WIB (04.00 pm)
6. Deadline for Receipt of Questions	May 21, 2021 (at the latest 16.00 p.m)
7. Deadline for Receipt of Proposals.	May 23, 2021 (at the latest 16.00 p.m)
8. Contact Person	IUWASH_Plus_Procurement@dai.com
9. Anticipated Award Type	a Firm Fixed Price Purchase Order Issuance of this RFP in no way obligates DAI to award a subcontract or purchase order and Bidders will not be reimbursed for any costs associated with the preparation of their quote.
10. Basis for Award	An award will be made based on the Trade Off Method. The award will be issued to the responsible and reasonable offeror who provides the best value to DAI and its client using a combination of technical and cost/price factors

1. Introduction and Purpose

1.1 Purpose

DAI, the implementer of the “The USAID Indonesia Urban Water, Sanitation and Hygiene 'Penyehatan Lingkungan Untuk Semua' (IUWASH PLUS) program, invites qualified offerors to submit proposals to supply and deliver “**Service Provider for Enhancing Capacity Building for Sanitation through E-learning**” in support of program implementation

1.2 Background

The USAID Indonesia Urban Water, Sanitation and Hygiene, *Penyehatan Lingkungan Untuk Semua* (IUWASH PLUS) program is a five-year-and-eight-months initiative designed to assist the Government of Indonesia (GOI) in increasing access to water supply and sanitation services as well as improving key hygiene behaviors among urban poor and vulnerable populations. USAID IUWASH PLUS works with governmental agencies, the private sector, NGOs, communities and others to achieve the following "high level" results:

1. An increase of 1,100,000 people in urban areas with access to improved water supply service quality, of which at least 500,000 are from the poorest 40% of the population (also referred to as the “Bottom 40%” or “B40”), vulnerable groups or Indonesia’s eastern provinces; and
2. An increase of 500,000 people in urban areas with access to safely managed sanitation.

To ensure that improvements in access to WASH services are sustained, USAID IUWASH PLUS is guided by a development hypothesis that focuses on strengthening service delivery systems, so they can more effectively reach the poorest and most vulnerable segments of the population. In order to achieve this at scale, the program undertakes activities through four interrelated components, including: 1) improving household WASH services; 2) strengthening city WASH institutional performance; 3) strengthening the WASH financing environment; and 4) advancing national WASH advocacy, coordination and communication. In support of these components, USAID IUWASH PLUS also implements a Local Sustainability and Innovation Component (LSIC) that is designed to stimulate WASH innovations that strengthen community, private sector and government WASH service provision.

Activity Summary

Improving the capacity building for sanitation operators is a critical part. This capacity building is especially for personnel who interact in sanitation operator. The sanitation operator could be as UPTD Pengelola Air Limbah Domestik or as a PDAM/PERUMDA. By implement the capacity building, it also support indirectly achieved SPM (Standard Pelayanan Minimal) or Minimum Standard Requirement on sanitation in each cities.

USAID IUWASH PLUS support the capacity building to the sanitation operators. However, many sanitation operators still have limited access to capacity building programs due to several constrains, among them there are still a few institutions that provide training programs designed specifically for sanitation operators. Balai Teknologi Sanitasi (BTS) under the Directorate General of Human Settlements, Ministry of Public Works and Housing (MPWH) is one of the institution that provide such training, design specifically for sanitation operators and focus on technical aspects of sanitation services.

BTS has many training program on sanitation sector. The training is divided majority in design, operation and maintenance, and also management. However, BTS has limitations to serve a significant number of participants due to most of the comprehensive training program requires substantial face-to-face time to deliver, the duration of different training module is ranging from 5 up to 10 days, thus maximum participants in each class training are only 25 – 30 person.

While, the total personnel in sanitation operators in Indonesia are more than 1,000 personnel and it will increased as SPM implemented. Therefore, to increase number of personnel in sanitation operators that can receive training from BTS, a new methodology for providing the training program is necessary, such as combining the e-learning and face-to-face method to reduce the duration. BTS and Directorate of Sanitation, MPWH request USAID IUWASH PLUS assistance to develop the e-learning concept, structure, and develop example of e-learning modules.

Therefore, USAID IUWASH PLUS will hire multimedia company to develop the Learning Management System (LMS) and e-learning modules from selected I modules/training. The multimedia consultant will conduct the development of e-learning starting from the concept, storyboard, LMS and modules development, conduct trials, evaluate results, and adjust when needed.

A. Objective

This proposal aims to support Balai Teknologi Sanitasi (BTS) in expanding the training methodology through online training/e-learning. The online training will become prerequisite to the face-to-face training. To be eligible for face to face training, the participants need to take the online training and pass the minimum score in the post test. The online training will mostly cover the basic knowledge/theory or introduction, while the more detail material will be done by face-to-face. By combining the two training methodology, BTS is expected to be able to increase the number of training participants.

B. Tasks

In general, the tasks and responsibilities of the consultant will include, but not limited to:

I. Preparation

- Identification of e-learning users.
- Identifying e-learning needs such as participant registration, discussion, tests and certificates.
- Identification of e-learning infrastructure requirement.
- Conduct regular discussion with USAID IUWASH PLUS and relevant stakeholders at Ministry of Public Works and Housing

2. Development of Learning Management Systems

- Identification of features required to operate e-learning (for instance: content management, registration, forum and/or video call/conf., testing and assessment, reporting and tracking, etc)
- Based on the agreed features, develop the LMS concept and design
- Develop the learning management system

Note: the LMS is planned to be integrated with SIPANDU (Sistem Layanan Terpadu) that developed by Subdit Data dan Informasi, Dit. Keterpaduan Infrastruktur Permukiman, Kem. PUPR

3. Development of E-learning I modules/material from selected topic training.

- Development of conceptual design and outline content (story board).
- Mockup development which is a visual sketch of the e-learning display.
- Prototype development which is a system or platform design that will be used.
- Development of e-learning modules.

4. Trial e-modules
 - Integration program with SIPANDU SATU (Sistem Pelayanan Terpadu Satu Pintu)
 - Conduct application pen test with Pusdatin of Ministry of Public Works and Housing
 - Conduct E-learning trial
 - Evaluate of e-learning trial results
 - E-learning improvement or adjustment
5. Support for e-learning management
 - Development of Standard Operational Procedure (SOP) for BTS to operate e-learning (backend, participant and instructor manual)
 - Provide training to operate and manage e-learning to relevant stakeholders (mainly BTS and Pusdatin)

During the implementation, the consultant at least minimum 3 times have to conduct event offline activity meeting/training with BTS-Surabaya and relevant stakeholder. The event activity are as follow: on development LMS and E-Learning, at trial of e-modules, and training BTS to support e-learning management. Due to limitation of personnel on the offline meeting/training, it could be combination with online.

After completion, the LMS and e-learning modules will be managed by Balai Teknologi Sanitasi (BTS). However, the programs (LMS and e-learning modules) will be stored in the Pusdatin of MPWH server. Therefore, close communication with these institutions are critical to ensure compatibility and ease of management. The Consultant have to service maintenance of the E-learning program at least 6 month after the contract finished.

C. Deliverables

- Concept and design of Learning Management Systems Brief and e-learning modules
- Learning Management System (LMS)
- 1 modules of e-learning
- SOP for managing e-learning (video for participant, and PDF for backend and instructor)
- Brief report on trial process and key points for improvement
- Source code program

D. Contribution to IUWASH PLUS Outcomes

The above proposed activities will contribute to the following IUWASH PLUS outcomes:

- HR 2: People gaining access to safely managed sanitation services.
C2-3: Local sanitation management units with improved service delivery performance.
C2-4: Local governments with improved WASH service delivery performance.
C4b: Number of knowledge products

E. Posting & Reporting Relationships

The multimedia company will work out of the IUWASH PLUS office in Jakarta, and report directly to the septage management specialist and/or sanitation coordinator component 2. The multimedia company also will work closely with e-learning development individual consultants. These individual consultants will provide significant support in implementing the tasks, especially in concept development, facilitate discussion and agreement of the concept, and scheme for LMS and E-Learning with BTS, Dit. Sanitasi, and

other relevant stakeholders. Also the individual consultants will provide support on different aspects on development e-Learning modules, such as the use of effective media, animation, user interface, etc.

F. Schedule

This activity will be implemented for 6 months from June to November 2021, with the detail schedule as follow:

No	Tasks	Jun	Jul	Aug	Sep	Oct	Nov
1	Inception Report						
2	LMS development						
3	Development of E-learning modules						
	• Story board development						
	• Modules/HTML5 development						
4	Integration program at SIPANDU SATU						
5	E-learning trial and improvement						

G. Estimated Budget and Payment Schedule

The budget for this activity is around IDR 550.000.000,- for development of Learning Management System (custom) and 1 module/material of e-learning modules. The budget include meeting/training event cost (offline), travel to Surabaya (include health test as prerequisite for travel), accommodation, and material kit. Payments will be made in 4 stages after the submission of the deliverables for each stage is received and approved by the USAID IUWASH PLUS and other key stakeholders (mainly BTS) in accordance with the tasks that must be carried out.

Payment will be carried out in 4 stages, as follows:

Reporting	Time Schedule	Payment
Inception report including detailed methodology, work plan, schedule, and personnel mobilization	June 2021	15%
Draft of LMS and draft of e-learning modules	August 2021	30%
Final LMS, draft of SOP for LMS, E-learning modules ready for trial	September 2021	35%
<ul style="list-style-type: none"> • Final E-learning modules • Final SOP for managing e-learning (hardcopy & video animation) • Source Code 	November 2021	20%

H. Proposed Mechanism

This activity will be implemented through fixed-price purchase order.

I. Bid Process

- | | |
|----------------------------------|-----------------|
| a. RFP Issued | May 6, 2021 |
| b. Pre-bid meeting | May 18, 2021 |
| c. Submission of Proposal | May 23, 2021 |
| d. Evaluation of bids by IUWASH | May 24-25, 2021 |
| e. Negotiation and Clarification | May 26-27, 2021 |
| f. Award Notification | May 28, 2021 |
| g. Contract Signing | May 31, 2021 |

I. Environmental Compliances

This activity is to prepare a study that has no pronounced effect on the natural or physical environment. So there is no need for an initial environmental examination, environmental analysis and an environmental impact statement. Based on USAID environmental policies and procedures, this activity is categorized as Categorical Exclusion.

Disclaimer:

1. Issuance of this RFP in no way obligates DAI to award an agreement.
2. Offerors will not be reimbursed for any costs associated with the preparation and submission of the proposal.
3. The Overall Assistance Agreement for USAID Environment Programs between the Government of Indonesia (GOI) waives the application of VAT to any commodities or services procured through this agreement. As such, vendors are requested not to include VAT in their cost proposal.”
4. IUWASH reserves the right to award multiple or no awards.

Withholding Tax Payment

All payment submitted to IUWASH PLUS will be deducted according to the prevailing tariffs. IUWASH PLUS will send the Withholding Tax Receipt after the following month.

2. Inspection & Acceptance

The designated DAI Project Manager will inspect from time to time the services being performed to determine whether the activities are being performed in a satisfactory manner, and that all equipment or supplies are of acceptable quality and standards. The subcontractor shall be responsible for any countermeasures or corrective action, within the scope of this RFP, which may be required by the DAI Chief of Party as a result of such inspection.

3. Compliance with Terms and Conditions

3.1 General Terms and Conditions

Offerors agree to comply with the general terms and conditions for an award resulting from this RFP. The selected Offeror shall comply with all Representations and Certifications of Compliance listed in Attachment G.

3.2 Source and Nationality

DAI must verify the source and nationality of goods and services and ensure (to the fullest extent possible) that DAI does not procure any goods or services from prohibited countries listed by the Office of Foreign Assets Control (OFAC) as sanctioned countries. OFAC sanctioned countries may be searched within the System for Award Management (SAM) at www.SAM.gov. The current list of countries under comprehensive sanctions include: Cuba, Iran, North Korea, Sudan, and Syria. Goods may not transit through or be assembled in comprehensive sanctioned origin or nationality countries nor can the vendor be owned or controlled by a prohibited country. DAI is prohibited from facilitating any transaction by a third party if that transaction would be prohibited if performed by DAI.

By submitting a proposal in response to this RFP, Offerors confirm that they are not violating the Source and Nationality requirements of the goods or services being offered and that the goods and services comply with the Geographic Code and the exclusions for prohibited countries outlined above.

3.3 Data Universal Numbering System (DUNS)

There is a **mandatory** requirement for your organization to provide a DUNS number to DAI. The Data Universal Numbering System is a system developed and regulated by Dun & Bradstreet (D&B) that assigns a unique numeric identifier, referred to as a "DUNS number" to a single business entity. Without a DUNS number, DAI cannot deem an Offeror "responsible" to conduct business with and therefore, DAI will not enter into a subcontract/purchase order or monetary agreement with any organization. The determination of a successful offeror/applicant resulting from this RFP/RFQ/RFA is contingent upon the winner providing a DUNS number to DAI. Offerors who fail to provide a DUNS number will not receive an award and DAI will select an alternate Offeror.

All U.S. and foreign organizations which receive first-tier subcontracts/ purchase orders with a value of **\$30,000** and above **are required** to obtain a DUNS number prior to signing of the agreement. Organizations are exempt from this requirement if the gross income received from all sources in the previous tax year was under \$300,000. DAI requires that Offerors sign the self-certification statement if the Offeror claims exemption for this reason.

For those required to obtain a DUNS number, see Attachment D - Instructions for Obtaining a DUNS Number - DAI'S Vendors, Subcontractors

For those not required to obtain a DUNS number, see Attachment E: Self Certification for Exemption from DUNS Requirement

4. Procurement Ethics

Neither payment nor preference shall be made by either the Offeror, or by any DAI staff, in an attempt to affect the results of the award. DAI treats all reports of possible fraud/abuse very seriously. Acts of fraud or corruption will not be tolerated, and DAI employees and/or subcontractors/grantees/vendors who engage in such activities will face serious consequences. Any such practice constitutes an unethical, illegal, and corrupt practice and either the Offeror or the DAI staff may report violations to the Toll-Free Ethics and Compliance Anonymous Hotline at +1 855-603-6987, via the DAI website, or via email to ethics@dai.com. DAI ensures anonymity and an unbiased, serious review and treatment of the information provided. Such practice may result in the cancellation of the procurement and disqualification of the Offeror's participation in this, and future, procurements. Violators will be reported to USAID, and as a result, may be reported to the U.S. Department of Justice to be included in a Restricted Parties list, preventing them from participating in future U.S. Government business.

Offerors must provide full, accurate and complete information in response to this solicitation. The penalty for materially false responses is prescribed in Section 1001 of Title 18 of the United States Code.

In addition, DAI takes the payment of USAID funds to pay Terrorists, or groups supporting Terrorists, or other parties in exchange for protection very seriously. Should the Terrorist, groups or other parties attempt to extort/demand payment from your organization you are asked to immediately report the incident to DAI's Ethics and Compliance Anonymous Hotline at the contacts described in this clause.

By submitting an offeror, offerors certify that they have not/will not attempt to bribe or make any payments to DAI employees in return for preference, nor have any payments with Terrorists, or groups supporting Terrorists, been attempted.

5. Attachments

5.1 Attachment A: Detail SOW

5.2 Attachment B: Proposal Cover Letter

[On Firm's Letterhead]

<Insert date>

TO: [Click here to enter text.](#)

Development Alternatives, Inc.

We, the undersigned, provide the attached proposal in accordance with **RFP No : REQ-JAK-21-0020 - Service Provider for Enhancing Capacity Building for Sanitation through E-learning**, issued on **May 6, 2021**. Our attached proposal is for the total price of <Sum in Words (\$0.00 Sum in Figures) >.

I certify a validity period of [Click here to enter text.](#) days for the prices provided in the attached Price Schedule/Bill of Quantities. Our proposal shall be binding upon us subject to the modifications resulting from any discussions.

Offeror shall verify here the items specified in this RFP document.

We understand that DAI is not bound to accept any proposal it receives.

Yours sincerely,

Authorized Signature:

Name and Title of Signatory: [Click here to enter text.](#)

Name of Firm: [Click here to enter text.](#)

Address: [Click here to enter text.](#)

Telephone: [Click here to enter text.](#)

Email: [Click here to enter text.](#)

Company Seal/Stamp:

5.3 Attachment C: Price Schedule

Item Number	Item Name	Unit Cost	Total Price	Remarks
1a	Service Provider for Enhancing Capacity Building for Sanitation through E-learning (detail cost attached at Cost Proposal Template)			
1b	Other cost (if any)			
2	VAT			
GRAND TOTAL IN IDR Click here to enter text.				
GRAND TOTAL IN UNITED STATES DOLLARS				
Period of Performance: Click here to enter text.				

We, the undersigned, provide the attached proposal in accordance **RFP REQ JAK-0021-0020 Service Provider for Enhancing Capacity Building for Sanitation through E-learning** dated May 6, 2021. Our attached proposal is for the total price of _____ (figure and in words)
 I certify a validity period of ___ days for the prices provided in the attached Price Schedule/Bill of Quantities. Our proposal shall be binding upon us subject to the modifications resulting from any discussions.

We understand that DAI is not bound to accept any proposal it receives.

Authorized Signature:
 Name and Title of Signatory:
 Name of Firm:
 Address:
 Telephone:
 Email:

Company Seal/Stamp:

5.4 Attachment D: Representations and Certifications of Compliance

1. Federal Excluded Parties List - The Bidder Select is not presently debarred, suspended, or determined ineligible for an award of a contract by any Federal agency.
2. Executive Compensation Certification- FAR 52.204-10 requires DAI, as prime contractor of U.S. federal government contracts, to report compensation levels of the five most highly compensated subcontractor executives to the Federal Funding Accountability and Transparency Act Sub-Award Report System (FSRS)
3. Executive Order on Terrorism Financing- The Contractor is reminded that U.S. Executive Orders and U.S. law prohibits transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the Contractor/Recipient to ensure compliance with these Executive Orders and laws. Recipients may not engage with, or provide resources or support to, individuals and organizations associated with terrorism. No support or resources may be provided to individuals or entities that appear on the Specially Designated Nationals and Blocked persons List maintained by the US Treasury (online at www.SAM.gov) or the United Nations Security Designation List (online at: http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml). This provision must be included in all subcontracts/sub awards issued under this Contract.
4. Trafficking of Persons – The Contractor may not traffic in persons (as defined in the Protocol to Prevent, Suppress, and Punish Trafficking of persons, especially Women and Children, supplementing the UN Convention against Transnational Organized Crime), procure commercial sex, and use forced labor during the period of this award.
5. Certification and Disclosure Regarding Payment to Influence Certain Federal Transactions – The Bidder certifies that it currently is and will remain in compliance with FAR 52.203-11, Certification and Disclosure Regarding Payment to Influence Certain Federal Transactions.
6. Organizational Conflict of Interest – The Bidder certifies that will comply FAR Part 9.5, Organizational Conflict of Interest. The Bidder certifies that is not aware of any information bearing on the existence of any potential organizational conflict of interest. The Bidder further certifies that if the Bidder becomes aware of information bearing on whether a potential conflict may exist, that Bidder shall immediately provide DAI with a disclosure statement describing this information.
7. Prohibition of Segregated Facilities - The Bidder certifies that it is compliant with FAR 52.222-21, Prohibition of Segregated Facilities.
8. Equal Opportunity – The Bidder certifies that it does not discriminate against any employee or applicant for employment because of age, sex, religion, handicap, race, creed, color or national origin.
9. Labor Laws – The Bidder certifies that it is in compliance with all labor laws..
10. Federal Acquisition Regulation (FAR) – The Bidder certifies that it is familiar with the Federal Acquisition Regulation (FAR) and is in not in violation of any certifications required in the applicable clauses of the FAR, including but not limited to certifications regarding lobbying, kickbacks, equal employment opportunity, affirmation action, and payments to influence Federal transactions.
11. Employee Compliance – The Bidder warrants that it will require all employees, entities and individuals providing services in connection with the performance of an DAI Purchase Order to comply with the provisions of the resulting Purchase Order and with all Federal, State, and local laws and regulations in connection with the work associated therein.

By submitting a proposal, offerors agree to fully comply with the terms and conditions above and all applicable U.S. federal government clauses included herein, and will be asked to sign these Representations and Certifications upon award.

5.5 Attachment E : Time line payment schedule

Activity	Payment Terms	Due Date	Payment Amount
Payment 1	Inception report including detailed methodology, work plan, schedule, and personnel mobilization		15%
Payment 2	Draft of LMS and draft of e-learning modules		30%
Payment 3	Final LMS, draft of SOP for LMS, E-learning modules ready for trial		35%
Payment 4	<ul style="list-style-type: none"> • Final E-learning modules • Final SOP for managing e-learning (hardcopy & video animation) Source Code		20%

5.6 Attachment F: Proposal Checklist

Offeror: _____

Have you?

Submitted your proposal to DAI in a sealed envelope to the address (electronic or mailing) as specified in General Instructions above?

Does your proposal include the following?

- Signed Cover Letter *(use template in Attachment B)*
- Proposal of the Product or Service that meets the technical requirements as per Attachment A
- Response to each of the evaluation criteria
- Documents use to determine Responsibility
- Evidence of a DUNS Number OR Self Certification for Exemption from DUNS Requirement

5.7. Attachment E-learning Materi

No	Topik	Sub Topik	Materi Pokok	JP
1	IPLT	<ul style="list-style-type: none"> Definisi IPLT Sumber limbah IPLT 	IPLT dan sumber limbah IPLT	1,5
	Karakteristik Lumpur Tinja	<ul style="list-style-type: none"> Kandungan Lumpur Tinja Kandungan Lumpur Tinja dan Unit Pengolahan 	Karakteristik Lumpur Tinja	
	Tahapan Pengolahan di IPLT	<ul style="list-style-type: none"> Pengolahan Pre Treatment <ul style="list-style-type: none"> Fungsi dan Proses Pre Treatment Contoh Unit Pengolahan Pemekatan <ul style="list-style-type: none"> Fungsi dan Proses Pemekatan Contoh Unit Pengolahan Lumpur <ul style="list-style-type: none"> Fungsi dan Proses Pengolahan Lumpur Contoh Unit Pengolahan Cairan <ul style="list-style-type: none"> Fungsi dan Proses Pengolahan Cairan Contoh Unit 	Fungsi Fasilitas/Prarana Utama IPLT	
	Rangkaian unit pengolahan di IPLT	<ul style="list-style-type: none"> Rangkaian unit pengolahan Contoh Rangkaian Unit Pengolahan **) <ul style="list-style-type: none"> Pre Treatment, SSC, Drying Area, kolam Anaerobik, kolam Fakultatif, kolam Maturasi, Wetland Pre Treatment, SSC, Drying Area, Anaerobik Baffle Reactor, kolam Fakultatif, kolam Maturasi, Wetland Pre Treatment, thickener, SDB, kolam Anaerobik, kolam Fakultatif, kolam Maturasi, Wetland 	Rangkaian unit pengolahan dan contoh rangkaian unit pengolahan	
2	Pengolahan Pre Treatment	<ul style="list-style-type: none"> Unit Screen, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 	Fungsi, Operasional dan Pemeliharaan bangunan/unit pengolahan Pretreatment IPLT	0,5
		<ul style="list-style-type: none"> Unit Grit Chamber, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 		0,5
		<ul style="list-style-type: none"> Unit Grease Trap, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 		0,5
3	Pengolahan Pemekatan	<ul style="list-style-type: none"> Unit Sludge Separation Chamber (SSC) Fungsi, Proses, Operasi, Pemeliharaan 	Fungsi, Operasional dan Pemeliharaan bangunan/unit	1,5
		<ul style="list-style-type: none"> Unit Gravity Thickener, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan, 		1

		<ul style="list-style-type: none"> • Unit Pompa (Peralatan Pendukung) Fungsi, Operasi, Pemeliharaan 	pengolahan Pemekatan IPLT	
4	Pengolahan Lumpur	<ul style="list-style-type: none"> • Unit Sludge Drying Bed (SDB), pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 	Fungsi, Operasional dan Pemeliharaan bangunan/unit pengolahan Lumpur IPLT	1
		<ul style="list-style-type: none"> • Unit Drying Area (DA), pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 		0,5
5	Pengolahan Cairan	<ul style="list-style-type: none"> • Unit Kolam Anaerobik, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 	Fungsi, Operasional dan Pemeliharaan bangunan/unit pengolahan Cairan (Biologi) IPLT	0,5
		<ul style="list-style-type: none"> • Unit Kolam Fakultatif, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 		0,5
		<ul style="list-style-type: none"> • Unit Kolam Maturasi, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 		0,5
		<ul style="list-style-type: none"> • Anaerobik Baffle Reactor (ABR), pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 		1
		<ul style="list-style-type: none"> • Wetland, pembahasan: Fungsi, Proses, Operasi, Pemeliharaan 		0,5