



USAID IUWASH Tangguh

USAID INDONESIA URBAN RESILIENT WATER, SANITATION, AND HYGIENE (IUWASH TANGGUH)

PROJECT YEAR 3 WORK PLAN

Attachment A

ENVIRONMENTAL MITIGATION AND MONITORING PLAN

SEPTEMBER 15, 2023

This document was produced for review by the United States Agency for International Development. It was prepared by DAI Global LLC for the USAID Indonesia Urban Resilient Water, Sanitation, and Hygiene (IUWASH Tangguh) program.

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Program Title:	USAID Indonesia Urban Resilient Water, Sanitation, And Hygiene (IUWASH Tangguh) Activity
Sponsoring USAID Office:	USAID/Indonesia
Contract Number:	72049722N00001
Contractor:	DAI Global, LLC
Date of Publication:	SEPTEMBER 15, 2023
Author:	DAI Global, LLC

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ACRONYMS

ADS	Automated Directives System
AKATIRTA	Akademi Teknik Tirta Wiyata/Tirta Wiyata Academy
AKKOPSI	Aliansi Kabupaten/Kota Peduli Sanitasi/Alliance of local governments having concerns about sanitation
APBD	<i>Anggaran Pendapatan dan Belanja Daerah</i> /Local Government Budget
APEKSI	<i>Asosiasi Pemerintah Kota Seluruh Indonesia</i> /Association of Indonesia's City Governments
APKASI	<i>Asosiasi Pemerintah Kabupaten Seluruh Indonesia</i> /Association of Indonesia's District Governments
BAPPENAS	Ministry of National Development Planning
BEO	Bureau Environmental Officer
BLUD	<i>Badan Layanan Umum Daerah</i> /Regional Public Service Agency
BMKG	<i>Badan Meteorologi, Klimatologi, dan Geofisika</i> /Indonesian Agency for Meteorological, Climatological, and Geophysics
BPD LH	<i>Badan Pengelolaan Dana Lingkungan Hidup</i> /Environmental Fund Management Agency
BTAM	<i>Balai Teknologi Air Minum</i> /Agency for Water Technology
BTS	<i>Balai Teknik Sanitasi</i> /Sanitation Technical Center
BUMD	<i>Badan Usaha Milik Daerah</i> /Regional-owned Enterprises
C/AOTR	Contracting/Alternate Agreement Officer's Technical Representative
CCA	Climate Change Adaptation
CCVA	Climate Change Vulnerability Assessment
COR	Contracting Officer's Representative
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
CWIS	City Wide Inclusive Sanitation
DAI	DAI Global, LLC.
DCOP	Deputy Chief of Party
Diskominfo	<i>Dinas Komunikasi dan Informasi</i> /Communication and Information Office
Dit. AM	<i>Direktorat Air Minum</i> / Directorate of Water Supply
DSCR	Debt Service Coverage Ratio
EE	Energy Efficiency
EMMP	Environmental Mitigation and Monitoring Plan
EMMR	Environmental Mitigation and Monitoring Report
EMS	Environmental Management System
ENCAP	Environmental Assessment Capacity Building Program
ERF	Environmental Review Form
ERR	Environmental Review Report
ESDM	<i>Energi dan Sumber Daya Mineral</i> /Energy and Mineral Resources
FAA	Foreign Assistance Act

FGD	Focus Group Discussion
FORKALIM	<i>Asosiasi Pengelola Air Limbah Domestik/Association of Domestic Wastewater Operators</i>
FS	Feasibility Study
FY	Fiscal Year
GCF	Green Climate Fund
GESI	Gender Equality and Social Inclusion
Godex	Governance Index
GOI	Government of Indonesia
GRBP	Gender Responsive Budgeting and Planning
HH	Household
HR	Human Resources
HWWS	Handwashing With Soap
IPLT	<i>Instalasi Pengolahan Lumpur Tinja/Septage Treatment Plant</i>
IRIS	Integrated Resilient IUWASH Systems
IEE	Initial Environmental Examination
IUWASH Tangguh	Indonesia Urban Resilient Water, Sanitation, and Hygiene
Kemendagri	<i>Kementerian Dalam Negeri/Ministry of Home Affairs</i>
Kemenkes	<i>Kementerian Kesehatan/Ministry of Health</i>
Kemenkeu	<i>Kementerian Keuangan/Ministry of Finance</i>
KLHK	<i>Kementerian Lingkungan Hidup dan Kehutanan/Ministry of Environment and Forestry</i>
LG	Local Government
LLTT	<i>Layanan Lumpur Tinja Terjadwal/Regular Desludging Service</i>
MEO	Mission Environmental Officer
MIS	Management Information System
MOCIT	Ministry of Communication and Informatics
MOH	Ministry of Health
MOHA	Ministry of Home Affairs
MPWH/MOPWH	Ministry of Public Works and Housing
NRW	Non-revenue Water
NUWSP	World Bank National Urban Water Supply Project
O&M	Operation and Maintenance
OPD	Organisasi Perangkat Daerah/Local Government Apparatus Organization
PBG	Performance Based Grant
PDAM	<i>Perusahaan Daerah Air Minum/Municipal Drinking Water Company</i>
PERKADA	Peraturan Kepala Daerah/Head of Local Government Regulation
PERPAMSI	National Association of Water Utilities
Pokja AMPL/PPAS/PKP	<i>Kelompok Kerja Air Minum dan Penyehatan Lingkungan/Perumahan, Permukiman, Air Minum, dan Sanitasi/Perumahan dan Kawasan Permukiman/Working Group for Water and Sanitation/Housing, Settlement, Water, and Sanitation/Housing and Settlements</i>

Pokja PUG	<i>Kelompok Kerja Pengarusutamaan Gender/Working Group for Gender Mainstreaming</i>
PPP	Public Private Partnership
PSDA	<i>Pengelolaan Sumber Daya Air/Water Resource Management</i>
PUG RANDA	<i>Rencana Kerja Daerah Pengarusutamaan Gender/Regional Workplan for Gender Mainstreaming</i>
PY3	Project Year 3
REA	Regional Environmental Advisor
RENJA	<i>Rencana Kerja/Work Plan</i>
RPAM	<i>Rencana Pengamanan Air Minum/Water Safety Plan</i>
RPJMD	<i>Rencana Pembangunan Jangka Menengah Daerah/Regional Medium Term Development Plan</i>
SKP	<i>Survey Kepuasan Pelanggan/Customer Satisfaction Survey</i>
SBC	Social and Behavior Change
SDG	Sustainable Development Goal
Seknas	<i>Sekretariat Nasional/National Secretariat</i>
SIPA	Social Inclusion Public Accountability
SL	Sustainable Landscape
SKKNI	<i>Standar Kompetensi Kerja Nasional Indonesia/ Indonesia's National Occupational Competency Standard</i>
SMDW	Safely Managed Drinking Water
SNI	<i>Standar Nasional Indonesia/Indonesia National Standard</i>
SOP	Standard Operating Procedure
SPAM	<i>Sistem Penyediaan Air Minum/Water Supply System</i>
SPM	<i>Standar Pelayanan Minimum/Minimum Service Standards</i>
SSK	Strategi Sanitasi Kabupaten/Kota/District/City's Sanitation Strategies
STBM	<i>Sanitasi Total Berbasis Masyarakat/Community-Based Total Sanitation</i>
SUPD 2	Sinkronisasi Urusan Pemerintah Daerah 2/Synchronization of Local Government Affairs 2
TAMIS	Technical and Administrative Management Information System
TAS	Transaction Advisory Services
TOCOR	Task Order Contracting Officer's Representative
TOT	Training of Trainers
USG	United States Government
USAID	United States Agency for International Development
UPTD	<i>Unit Pelaksana Teknis Daerah/Regional Technical Implementing Unit</i>
VA	Vulnerability Assessment
VAT	Value Added Tax
WASH	Water, Sanitation, and Hygiene
WRM	Water Resource Management
WSP	Water Safety Plan
ZAMP	<i>Zona Air Minum Prima/Safe Drinking Water Service Area</i>

I. INTRODUCTION

USAID Indonesia Urban Resilient Water, Sanitation, and Hygiene (USAID IUWASH Tangguh) is a five-year Activity to advance Indonesia's development goals in increasing access to safely managed drinking water, sanitation and hygiene (WASH) in vulnerable urban areas and strengthening climate-resilient WASH services and water resources management. In close partnership with the Government of Indonesia (GOI), USAID IUWASH Tangguh supports Indonesia's work to achieve their Sustainable Development Goal (SDG) targets to ensure access to water and sanitation for all (SDG 6) and to make cities and settlements inclusive, safe, resilient, and sustainable (SDG 11).

Using an Integrated Resilient IUWASH Systems (IRIS) approach—which aligns actions and incentives between upstream and downstream actors, while crowding in collaboration with key stakeholders through partnerships that accelerate the enabling environment and key enabling factors, such as finance and data—the USAID IUWASH Tangguh team will provide technical assistance to GOI, private sector and civil society stakeholders to achieve four objectives: 1) Strengthened WASH and WRM Sector Governance and Financing; 2) Increased Access to Poor-Inclusive, Climate-Resilient, Safely Managed Drinking Water and Sanitation Services; 3) Improved Water Resources Management to Support Resilient Drinking Water Services; and 4) Increased Adoption of Behaviors and Improved Women's Participation and Leadership Roles that Contribute to Improvements of WASH and WRM.

2. PURPOSE

USAID, in ADS 204.1 Environmental Procedures, requires implementation of environmental sustainability measures which must be mainstreamed into all interventions to avoid inadvertent harm to people and nature. Within the goal and objectives of this Activity, the EMMP must integrate measures to mitigate potential negative consequences of a changing climate, weak governance, social and environmental impacts, including additional analyses, as necessary. Additionally, USAID, in ADS 201 Climate Risk Management Procedures, requires the Contractor to articulate practices and interventions that can enable climate resilient approach to succeed and support the sustainability of the investment made under this activity.

To strengthen the implementation of USAID's environmental policy requirements, this EMMP outlines a system to monitor environmental and social safeguards throughout the life of USAID IUWASH Tangguh. The environmental and social safeguards take into account relevant international obligations, national circumstances, laws, policies, and regulations. USAID IUWASH Tangguh will regularly provide monitoring updates on the implementation of EMMP through quarterly and annual reports, and as requested by USAID.

This EMMP also provides information essential to assessing the potential impacts of interventions, and to the identification and detailed design of appropriate mitigation and monitoring measures. Finally, we look at climate risks in the Climate Risk Matrix drawing from USAID's IEE of the USAID IUWASH Tangguh Activity for those contractual tasks identified as having a moderate climate risk.

In the Annexes of this EMMP, we present an environmental review form (ERF) and management system that the team will use to screen any activities deemed to present a risk beyond those classified as categorical exclusions. USAID IUWASH Tangguh will be responsible for any sub-award screening and ensuring compliance with the ERF, checklists, and ongoing monitoring of all activities.

3. PROGRESS OF USAID IUWASH TANGGUH OBJECTIVES

United States Government (USG) Environmental Policies and Procedures

Pursuant to the Foreign Assistance Act (FAA) of 1961, USAID provides development assistance in the form of technical advisory services, research, training, construction, and commodity support. USAID also conducts programs to combat hunger and malnutrition and to facilitate economic development. Assistance programs are carried out under the foreign policy guidance of the Secretary of State and in cooperation with the governments of sovereign states. In accordance with sections 118(b) and 621 of the FAA, as amended, it is USAID's policy is to:

1. Ensure that the environmental consequences of USAID financed activities are identified and considered by USAID and the host country prior to a final decision to proceed and that appropriate environmental safeguards are adopted.
2. Assist developing countries to strengthen their capabilities to appreciate and effectively evaluate the potential environmental effects of proposed development strategies and projects, and to select, implement and manage effective environmental programs.
3. Identify impacts resulting from USAID's actions upon the environment, including those aspects of the biosphere which are the common and cultural heritage of all mankind; and
4. Define environmental limiting factors that constrain development, identify, and carry out activities that assist in restoring the renewable resource base on which sustained development depends.

The environmental procedures for USAID are promulgated as Title 22 of the Code of Federal Regulations, Part 216 (22 CFR 216). Except as provided in Section 216.2(b), these procedures apply to all new projects, programs, or activities authorized or approved by USAID and to substantive amendments or extensions of ongoing projects, program, or activities. USAID's Automated Directives System (ADS) Parts 201.5.10g and 204 require that the potential environmental impacts of USAID-financed activities are identified prior to a final decision to proceed and that appropriate environmental safeguards are adopted for all activities.

An Initial Environmental Examination (IEE) is typically prepared as part of the program design process (e.g., Project Appraisal Document) by the sponsoring Bureau within USAID for non-exempted activities. The IEE will include a Threshold Decision to determine if the proposed activities have the potential to result in significant environmental impacts and/or if the activities are categorically excluded from additional review because they are the types of activities that are not likely to have an environmental impact. A Positive Threshold Decision results from the finding that the proposed action will have a significant effect on the environment and will require either the preparation of an Environmental Impact Statement pursuant to Section 216.7 or an Environmental Assessment pursuant to Section 216.6. Alternatively, a Negative Determination will be recorded if the proposed action will not have a significant effect on the environment.

In February 2022, USAID/Indonesia completed an IEE for USAID/Indonesia Urban Resilient Water, Sanitation, and Hygiene (USAID IUWASH Tangguh) that was planned to commence from FY 2022. The purpose of IEE was to provide first review of reasonably foreseeable environmental effects and climate risk ratings and recommend Threshold Decision for USAID IUWASH Tangguh. The IEE assesses potential environmental impacts and makes recommended determinations by activity type organized around the project's objectives. The IEE concluded that certain activities anticipated under

USAID IUWASH TANGGUH merited a “categorical exclusion” per Title 22, Code of Federal Regulations, Part 216 (22CFR216) while others fell into the category of “negative determination with conditions”.

Pursuant to 22 CFR 216.2(c)(2), activities recommended for Categorical Exclusion include:

- education, technical assistance, or training programs except to the extent such programs include activities directly affecting the environment (such as construction of facilities, etc.)
- analyses, studies, academic, or research workshops and meetings
- document and information transfers
- studies, projects, or programs intended to develop the capability of recipient countries to engage in developing planning, except to the extent designed to result in activities directly affecting the environment.

Climate risk rating:

Exhibit I. Risk rating

	PROBABILITY OF NEGATIVE IMPACT (increases from left to right)		
SEVERITY OF NEGATIVE IMPACT (increases from top to bottom)	Low probability Low impact LOW RISK	Moderate probability Low impact LOW RISK	High probability Low impact LOW RISK
	Low probability Moderate impact LOW RISK	Moderate probability Moderate impact MODERATE RISK	High probability Moderate impact MODERATE RISK
	Low probability High impact MODERATE RISK	Moderate probability High impact HIGH RISK	High probability High impact HIGH RISK

Low climate risk – the above table indicates four scenarios (in green) that would be considered low climate risk to the achievement or sustainability of project or activity outcomes. As an example, in a region expecting slight increases in temperature and precipitation, favoritism influencing the provision of assistance after crop failure may pose a low risk to a governance initiative focused on anti-corruption reform in the judiciary (low probability, low impact). Moderate climate risk – the above table indicates three scenarios (in orange) that would be considered moderate climate risk to the achievement or sustainability of project or activity outcomes. An example of a moderate climate risk is the potential consequence of increasing sea surface temperature, causing coral reef bleaching and subsequent reduction in wild fish populations, on a coastal fisheries management and food security program (moderate probability, moderate impact). High climate risk – the above table indicates two scenarios (in red) that would be considered high climate risk to the achievement or sustainability of project or activity outcomes. An example of a high climate risk is damage due to sea level rise coupled with increasing storm surge on planned coastal transportation infrastructure (high probability, high impact).

The following exhibit provides the environmental determinations for activities under each component:

Exhibit 2. Environmental Determination for USAID IUWASH Tangguh Project Activities

Objective	Illustrative Key Activities	Environmental Determinations	Climate Risk Rating
Objective 1: Strengthened WASH and WRM sector governance and financing	Outcome 1.1. Safely managed WASH and water security/WRM policies and regulation created or improved, implemented, monitored, and enforced at the national and regional government levels	Categorical exclusion, Negative Determination with conditions	Low
	Outcome 1.2. Public and private budgets and expenditures that prioritize equitable, gender-responsive, climate-resilient, and sustainable WASH and WRM services increased.	Categorical exclusion, Negative Determination with conditions	Low
	Outcome 1.3. WASH and WRM sector institutional capacities increased	Categorical exclusion	Low
	Outcome 1.4. Increased accountability and inclusivity in WASH and WRM governance	Categorical exclusion	Low
Objective 2: Increased Access to Poor-Inclusive, Climate-Resilient, Safely Managed Drinking Water and Sanitation Services	Outcome 2.1. Capacity of professionalized WASH and WRM workforce increased.	Categorical exclusion Negative Dertemination with Condition	Low
	Outcome 2.2. Performance of drinking water and sanitation service providers increased	Categorical exclusion Negative Dertemination with Condition	Low
	Outcome 2.3. City-wide inclusive, climate-resilient, and financially viable WASH and WRM institutional arrangements and service models established and expanded.	Categorical exclusion Negative Dertemination with Condition	Moderate
	Outcome 2.4. Monitoring, learning, and innovation platforms developed and strengthened.	Categorical exclusion	Low
Objective 3: Improved Water Resources Management to Support Resilient Drinking Water Services	Outcome 3.1. Improved water quality, quantity, and reliability in watersheds which supply raw water for drinking water services	Categorical exclusion Negative Dertemination with Condition	Moderate
	Outcome 3.2. Increased accountability and equity in WRM and climate-resilient WASH regulatory and management arrangements.	Categorical exclusion	Moderate
	Outcome 3.3. Expanded information, analysis, and advocacy for climate-resilient decision making in policy, programs, and operations.	Categorical exclusion	Moderate

Exhibit 2. Environmental Determination for USAID IUWASH Tangguh Project Activities

Objective	Illustrative Key Activities	Environmental Determinations	Climate Risk Rating
	Outcome 3.4 Strengthened national and subnational GOI WRM Policy, guidance, and programs to support resilient drinking water services	Categorical exclusion	Moderate
Objective 4: Increased Adoption of Behaviors and Improved Women's Participation and Leadership Roles that Contribute to Improvements in WASH and WRM	Outcome 4.1. Latrine use, maintenance, and desludging behaviors adopted and become social regulated norms	Categorical exclusion,	Moderate
	Outcome 4.2. Payment for equitable and accountable water and sanitation services becomes the social norm	Categorical exclusion	Low
	Outcome 4.3. Institutional prioritization, commitment, and participation in WASH and WRM sector improvements, including for poor-inclusive and data-driven decision making, increased.	Categorical exclusion	Low

As a general implementation and monitoring condition, the IEE requires the preparation of an Environmental Mitigation and Monitoring Plan (EMMP) for projects being implemented by USAID/Indonesia such as USAID IUWASH Tangguh. The EMMP provides a basis for systematic implementation of IEE conditions and serves as a vehicle for translating the broad, programmatic-level IEE conditions into specific, implementable, verifiable actions that are relevant to the activity.

4. DETAILED SCREENING OF USAID IUWASH TANGGUH PY3 ACTIVITIES

The discussion below is organized around USAID IUWASH Tangguh’s four objectives, and further detailed for each Outcome and Task. Each section contains a brief discussion of the overall objective followed by illustrative tables that list the planned activities the project team anticipates supporting during PY3 of the project (from October 1, 2023 – September 30, 2024).

4.1. OBJECTIVE 1: STRENGTHENED WASH AND WRM SECTOR GOVERNANCE AND FINANCING

4.1.1. OUTCOME 1.1. SAFELY MANAGED WASH AND WATER SECURITY/WRM POLICIES AND REGULATION CREATED OR IMPROVED, IMPLEMENTED, MONITORED, AND ENFORCED AT THE NATIONAL AND REGIONAL GOVERNMENT LEVELS

TASK 1.1.1. DEVELOP AND FACILITATE POLICIES AND REGULATIONS FOR IMPROVED WASH/WRM PROCESSES AT NATIONAL AND LOCAL GOVERNMENT LEVELS.

USAID IUWASH Tangguh will provide technical support to LGs, CSOs, user groups, and engaged citizens to support advocacy and revision of draft policy, legislation, and enforcement mechanisms in each jurisdiction. Areas of support will include water-use permitting and monitoring, monitoring and mapping tools for effluent monitoring, regulatory development for LG-owned companies providing integrated drinking water and wastewater services, and promotion and enforcement of national onsite sanitation design and construction standards and permitting and inspection systems. While training, capacity building, policy, and strategy development, are activities that do not have a pronounced effect on the natural or physical environment, regulatory activities can affect the environment as poor design of WASH facilities and WRM policies can lead to contamination of surface and groundwater or impacts on water resources. In the PY3, the team will continue to identify regulatory gaps in sanitation, water, and WRM in at the national and local levels.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Advocacy and facilitate developing policy and regulation on national and subnational levels, which include the following regulations: Regulation of the integration institution of water and sanitation service.	Categorical exclusion Negative Determination with Condition
1. Advocacy and facilitate development of regulation of Institution and SPAM Regional Tariff	Categorical exclusion
2. Advocacy and facilitate development of regulation of Integration of PDAM Performance Assessment National with PDAM Index	Categorical exclusion
3. Advocacy and facilitate development of regulation of technical guideline for improve chlorination	Categorical exclusion Negative Determination with Condition
4. Advocacy and facilitate development of regulation of SKKNI for WSP/PPAM.	Categorical exclusion

Expected USAID IUWASH Tangguh Activities	Environmental Determination
5. Advocacy and facilitate development of regulation of guidelines/SOP/Tools for calculating the total cost required and to be provided by local governments for Safely Managed Drinking Water services	Categorical exclusion
6. Advocacy and facilitate development of regulation to encourage UPTD to become BLUD, or BLUD to become BUMD	Categorical exclusion
7. Advocacy and facilitate development of regulation of WRM institution in the region	Categorical exclusion
8. Advocacy and facilitate development of regulation of WASH/WRM Institution (Pokja PKP, Tim Penerapan SPM, Pokja PUG	Categorical exclusion

TASK 1.1.2. PRIORITIZE PATHWAYS FOR PASSAGE AND IMPLEMENTATION OF DRAFT POLICY AND REGULATIONS.

USAID IUWASH Tangguh in PY3 will prioritize issues that offer the most promise for reform of WASH built during the USAID IUWASH PLUS program. Of these processes, the WASH microfinance financing facility regulation is one of the crucial activities to be continued by the team in collaboration with the Ministry of Finance. Similarly, to strengthen the sanitation system, the team will continue to facilitate Directorate of SUPD2 (MOHA) to develop the regulation of sanitation tariff.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Advocacy and facilitate developing policy and regulation on national and subnational levels that include	Categorical exclusion
1. Advocacy to develop regulation for the WASH microfinance financing program	Categorical exclusion
2. Support FORKALIM and the MOF to continue processing development of the regulation for the Wastewater VAT Exemption	Categorical exclusion
3. Support the Ministry of Public Works and Ministry of Home Affairs (MOHA) to develop the sanitation tariff regulation.	Categorical exclusion
4. Work with Directorate of SUPD2, MOHA to provide technical assistance to local government for implementation, monitoring and collecting data of SPM WASH/WRM	Categorical exclusion
5. Support the Directorate of SUPD2, MOHA to develop technical guidelines for establishing BLUD of sanitation service.	Categorical exclusion

TASK 1.1.3. STIMULATE PARTICIPATION OF DIVERSE STAKEHOLDERS IN BROADER POLICY REFORM AND ENFORCEMENT INITIATIVES AGENDA.

In the PY3, USAID IUWASH Tangguh will work closely with Association of Indonesian Municipalities (APEKSI) in supporting the acceleration of achieving 100% access of safely drinking water in 6 cities through advocating the local government and developing related regulation such as Mayor Regulation - PERKADA. For sanitation sector improvement, the team will closely engage with FORKALIM to facilitate the SUPD2, MOHA, to develop the regulation of VAT exemption of sanitation tariff.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Engage with AKOPSI to support USAID IUWASH Tangguh's sanitation program interventions at the city/district level	Categorical exclusion
2. Identify potential partnership with APEKSI and APKASI to encourage the development of next RPJMD policies that support the improvement of WASH/WRM services at local level.	Categorical exclusion
3. Engage with FORKALIM to support national and subnational programs	Categorical exclusion
4. Engage with FORKALIM to support national and subnational programs	Categorical exclusion
5. Engage with AKOPSI to support national and subnational programs	Categorical exclusion
6. Engage with Pokja PKP, Tim Penerapan SPM, Pokja PUG at city and district level and DPD PERPAMSI	Categorical exclusion

4.1.2. OUTCOME 1.2. PUBLIC AND PRIVATE BUDGETS AND EXPENDITURES THAT PRIORITIZE EQUITABLE, GENDER RESPONSIVE, CLIMATE-RESILIENT, AND SUSTAINABLE WASH AND WRM SERVICES INCREASED

Task 1.2.1. Improve data flows to identify financial flows and gaps at the WASH/WRM sectoral level.

In PY3, USAID IUWASH Tangguh will continue to analyze Local Government budget allocation capacity in APBD for WASH and WRM sector in city/district as well as provincial level using APBD Tracking Tool. The tool categorized local budget allocation with nomenclatures (referring to Ministerial Decision of Home Affairs—Keputusan Menteri Dalam Negeri No. 050-5889 in 2021 and Keputusan Menteri Dalam Negeri No. 900.1.15.5-1317 in 2023) specifically for sub program related with WASH and WRM sector. The sub programs are in Dinas Pekerjaan Umum and Tata Ruang, Dinas Kesehatan, Dinas Lingkungan Hidup, Dinas Komunikasi dan Informatika, Dinas Pertanian, Dinas Pemberdayaan Masyarakat dan Desa. The Local Government will learn from APBD Tracking Tool the funding gap between budget allocation in APBD and required amount of funding to achieve safely drinking water and sanitation. Moreover, by utilizing APBD Tracking Tool USAID IUWASH Tangguh will pinpoint, propose and advocate programs in relation to nomenclature on WASH and WRM.

The APBD Tracking Tool will also identify the capacity from Local Government to propose Municipal Loans and/or Bonds using Debt Service Coverage Ratio (DSCR). Debt service coverage ratio is calculated by dividing annual net operating revenues (calculated by subtracting total operating expenses excluding depreciation from total operating revenues) by the system's annual principal and interest payments on all long-term debt. The median debt service coverage ratio regulated by the Ministry of Finance is 2.5. That means that the City/District Government had sufficient capacity to pay for 250 percent of their debt service.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Collect data of historical local budget (APBD) year 2024, identify the WASH and WRM allocation, and conduct regional fiscal capacity (LGs) assessment and discussion in cities/districts.	Categorical exclusion
2. Collect data of PDAMs' and Sanitation service providers' historical financial performance by using PDAM and Sanitation Performance Index	Categorical exclusion

Task 1.2.2. Support financial planning and analysis at LG, PDAM, and UPTD service provider levels.

In PY3, USAID IUWASH Tangguh will continue to examine the result of the Transaction Advisory Services (TAS) analysis. The TAS aims to reveal potential investment projects from PDAMs and LGs and possible supports that USAID IUWASH Tangguh can provide for project implementation. The TAS analysis is carried out in four stages (identification, screening, preparation, and transaction). The tool generates an overall score and description, along with specific recommendations and guidelines for each subsection. The minimum score required for each subcategory and the final project score threshold, set at 50%, can be adjusted based on market risk tolerance. Projects surpassing this threshold and meeting minimum subcategory scores are classified as a high priority. This stage helps in shortlisting projects that hold the most promise for successful implementation. Furthermore, USAID IUWASH Tangguh will continue to provide necessary support and financing schemes to facilitate the implementation of the selected projects.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Organize integrated technical assistance for stakeholders (LGs, PDAMs, and UPTDs) to optimize their budget allocation in WASH and WRM development plans.	Categorical exclusion
2. Utilize the TAS analysis to prioritize and shortlist investment projects that meet or exceed the specified scoring thresholds and providing possible supports by USAID IUWASH Tangguh	Categorical exclusion Negative Determination with Condition
3. Calculating a detailed tariff analysis that considers the full spectrum of factors influencing pricing, including infrastructure development, maintenance, operation, margin, and community needs.	Categorical exclusion
4. Work closely with the selected high-priority projects to further develop and refine their Business Plans, Pre-FS, and/or FS.	Categorical exclusion

Task 1.2.3. Identify financing opportunities and create pipeline of WASH-/WRM-related investments.

USAID IUWASH Tangguh actively identifies financing opportunities and establishes a robust pipeline of investments in the WASH and WRM sectors. By engaging with diverse stakeholders such as financial institutions, private investors, government agencies, and development partners, the program explores various funding sources and innovative financing mechanisms. Through market assessments and feasibility studies, USAID IUWASH Tangguh identifies promising investment projects that address critical gaps in the WASH and WRM sectors, prioritizing sustainability and impact. The program facilitates partnerships and provides technical support to prepare investment proposals and develop sound financial structures. By mobilizing resources and attracting capital, USAID IUWASH Tangguh drives transformative projects that improve access to clean water, enhance sanitation services, and promote effective water resources management, contributing to the overall well-being of communities. In PY3, the team will compile the project pipeline, facilitating financing access, launch investor and industry network, and continue the study of private participation in sanitation sector.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Compile the projects pipeline from stakeholders in each city/district, simultaneously promoting the project for private investment	Categorical exclusion (workshops and meetings) Negative Determination with Conditions
2. Facilitating private sector financing access that includes assistance for market consultation, market sounding, and support in negotiation with the potential investors	Categorical exclusion (workshops and meetings) Negative Determination with Conditions
3. Launch an Investor and Industry Network (IIN) as a collaborative platform to generate investor interest and forge Public-Private Partnership	Categorical exclusion
4. Continuing Study of Private Participation in Sanitation Financing	Categorical exclusion

4.1.3. OUTCOME 1.3. WASH AND WRM SECTOR INSTITUTIONAL CAPACITIES INCREASED

Task 1.3.1. Build capacity of WASH/WRM coordination institutions.

In PY3, USAID IUWASH Tangguh will continue capacity building activities for related WASH and WRM institutions at subnational level. Under Objective I, the training will relate to the governance and finance of the sectors such as minimum service standards (SPM), local government planning and budgeting (RENJA), and financial aspects of WASH sectors including tariff structuring and calculation.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Facilitate APBD Workshop (tagging nomenclature, leverage, and realization)	Categorical exclusion
2. Provide training and technical assistance to local government (Pokja PKP and OPD WASH/WRM) in RENJA development	Categorical exclusion
3. Training for accelerating the fulfillment of national Minimum Service Standards (Standar Pelayanan Minimal/SPM) of WASH sector	Categorical exclusion
4. GODEX Workshop for collecting government performance data.	Categorical exclusion
5. Assess the local government and utilities (PDAM, UPTD, BLUD) capacity in business and financial management and develop the training plan. Training material in will include WASH tariff setting, training for real demand survey and customer survey (<i>survey kepuasan pelanggan/SKP</i>), and utility business planning.	Categorical exclusion Negative Determination with Condition
6. Conduct the training based on the project pipeline assessment for local government and utilities (PDAM) that include PPP project preparation training, and capacity building for project procurement.	Categorical exclusion Negative Determination with Condition

4.1.4. OUTCOME 1.4. INCREASED ACCOUNTABILITY AND INCLUSIVITY IN WASH AND WRM GOVERNANCE

Task 1.4.1. Expand mechanisms to promote social accountability and inclusivity.

In PY3, Objective I team will work closely with Dinas Komunikasi dan Informatika (Diskominfo), PDAM and other stakeholders in subnational that have developed public accountability applications and or systems and assure the administrators of the application well understand for WASH and

WRM aspects and issues. Certain development of standard of procedures (SOPs), Guidelines, Workplan, related regulations (Surat Keputusan Dinas) to support the work of SIPA mechanisms, and promotion use of the mechanism/application to the public are activities that USAID IUWASH Tangguh will conduct in PY3 to secure that WASH and WRM sectors are included in the mechanism.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Support and work closely with Dinas Komunikasi and Informatika (Diskominfo) in 14 city/district	Categorical exclusion
2. Develop as necessary standard operating procedures (SOPs), Guidelines, or Workplan, related regulations to support SIPA mechanism, and promotion activity for public awareness of the mechanism in 14 cities/districts	Categorical exclusion
3. Maintain and supervise the implementation of SIPA mechanisms already in course so that WASH and WRM issues are covered and resolved.	Categorical exclusion

4.2. OBJECTIVE 2: INCREASED ACCESS TO POOR-INCLUSIVE, CLIMATE-RESILIENT, SAFELY MANAGED DRINKING WATER AND SANITATION SERVICE

4.2.1. OUTCOME 2.1. CAPACITY OF PROFESSIONALIZED WASH AND WRM WORKFORCE INCREASED

Task 2.1.1. Apply workforce development framework to support service providers.

USAID IUWASH Tangguh will conduct workshops, provide technical assistance, development improvement plans, and create tools to strengthen the capacity of WASH service providers' staff. In PY3, the team will facilitate meeting with PDAM, review BUMD document to review the capacity gap, support BTAM and Akatirta in implementation of capacity building roadmap, identification of training topics, and organize training series for instructor and manager. In sanitation, the team will support Directorate of Sanitation and BTS in finalization of sanitation capacity building roadmap, facilitation of BTS business plan, reviewing the sanitation training module, organizing training of trainer for BTS staff to gain certification. USAID IUWASH Tangguh will continue support FORKALIM in organizing webinar series on LLTT program and horizontal learning amongst UPTD.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Meeting and FGD with some PDAM represent PDAM sick, unhealthy and healthy	Categorical exclusion
2. Review and Refinement of Documents for BUMD Drinking Water HR Development	Categorical exclusion
3. Identification of Potential Training Topic in 3 PDAMs training center	Categorical exclusion
4. Conducting FGD and meetings to identify training needs to increase the number of instructors and managers in increasing PDAM Performance	Categorical exclusion Negative Determination with Condition
5. Organize and Implement training series packages for instructors and managers of BTAM and 3 PDAMs training center	Categorical exclusion Negative Determination with Condition
6. Development of BTS Business Plan	Categorical exclusion

Expected USAID IUWASH Tangguh Activities	Environmental Determination
7. Sanitation training module improvement	Categorical exclusion Negative Determination with Condition
8. TOT for BTS and partners on training methodology by engaging BNSP the institution of professional certification	Categorical exclusion Negative Determination with Condition
9. Continue support BTS in LLTT and IPLT O&M training	Categorical exclusion Negative Determination with Condition
10. Continue support FORKALIM on capacity building of WW operator	Categorical exclusion Negative Determination with Condition

4.2.2. OUTCOME 2.2. PERFORMANCE OF DRINKING WATER AND SANITATION SERVICE PROVIDERS INCREASED

Task 2.2.1. Develop portfolio approaches to improving operational and financial efficiencies.

USAID IUWASH Tangguh will take a data-driven approach to improving the operational efficiency and financial performance of PDAMs, prioritizing specific issues affecting the financial and operational health of each supported PDAM and implementing customized packages of practical support—including technical assistance, training, and private sector contracting. For sanitation, USAID IUWASH Tangguh will provide technical support to scale the regulation and monitoring of desludging services.

While technical assistance and training are activities that do not have a pronounced effect on the natural or physical environment, USAID IUWASH Tangguh will assist WASH service providers to expand water and sanitation services, which, if managed poorly, could result in contamination of surface and groundwater supplies, spread waterborne disease, or contribute to the degradation of ecosystems.

During PY3, water team will facilitate series of FGD and meetings for planning of collaboration to support national water grant, PBG NUWSP (NRW-EE), socialization of asset management, strengthening PDAM capacity in NRW reduction, NRW technology development, and training of mWater application to PDAM. The Sanitation team will finalize update the septic tank construction guidelines, collecting and analyses of safely managed sanitation data, wastewater operator, IPLT capacity, promoting PDAM in wastewater management, and improving the capacity of UPTD into BLUD.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Conducting FGDs and meetings with the Dit.AM MoPWH, regarding the planning, agenda, and forms of collaboration related to the national Water Grant program, the national program PBG-NUWSP (NRW) and EE	Categorical exclusion
2. Asset management socialization and training using the mWater app	Categorical exclusion

Expected USAID IUWASH Tangguh Activities	Environmental Determination
	Negative Determination with Condition
3. Strengthening PDAM Capacity for NRW Reduction Program	Categorical exclusion Negative Determination with Condition
4. Supporting in Capacity building of NRW development Technology	Categorical exclusion Negative Determination with Condition
5. Strategy of 100% coverage improve system	Categorical exclusion
6. Updating septic tank design guidelines to include in-house piping system	Categorical exclusion
7. Promote PDAM to manage wastewater (assessment of potential PDAM)	Categorical exclusion Negative Determination with Condition
8. Promote PDAM to manage waste water (assessment of potential PDAM)	Categorical exclusion Negative Determination with Condition
9. Promoting improvement of financial efficiency of potential UPTD to become BLUD (assessment of potential UPTD)	Categorical exclusion Negative Determination with Condition
10. UPTD national workshop	Categorical exclusion
11. Develop concept of private participation in sanitation management	Categorical exclusion
12. IPLT assessment	Categorical exclusion Negative Determination with Condition
13. Facilitation of LLTT program	Categorical exclusion Negative Determination with Condition
14. Development of inclusive SOP for LLTT services at local government	Categorical exclusion Negative Determination with Condition

4.2.3. OUTCOME 2.3. CITY-WIDE INCLUSIVE, CLIMATE-RESILIENT, AND FINANCIALLY VIABLE WASH AND WRM INSTITUTIONAL ARRANGEMENTS AND SERVICE MODELS ESTABLISHED AND EXPANDED

Task 2.3.1. Expand menu of service model options for PDAM and LG integration and adoption

USAID IUWASH Tangguh will support service delivery, stimulate investment, expand appropriate WASH and WRM service models, such as sanitation desludging service, water safety plan, and pilot safe drinking water service area or ZAMP through a consultation process with community and service providers. Installation of new water connections, small scale water and sanitation facilities, as well as desludging service when managed poorly could result in contamination of surface and groundwater supplies, spread waterborne disease, or contribute to the degradation of ecosystems. During PY3, water team will coordinate with MPWH in identification of site for new SPAM,

conducting RPAM TOT in provincial level, support the RPAM national secretariate, and developing tools for WQ monitoring. The Sanitation team will develop the sanitation resilience tools, and pilot of climate adaptation in local government.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Pra assessment and identification location of new development and improvement of SPAM with the MoPWH (one of them is the district/city involved in SPAM Regional)	Categorical exclusion
2. Developing Tools for Water Quality Monitoring at raw water, distribution, and consumers	Categorical exclusion Negative Determination With Condition
3. Conducting the Training of Trainer RPAM for province level	Categorical exclusion Negative Determination with Condition
4. Support to Water Safety Plan National Secretariat (SEKNAS RPAM) (Continued from PY - 2)	Categorical exclusion
5. Pilot of relevant climate adaptation in local government	Categorical exclusion Negative Determination with Condition
6. Development of SSSA	Categorical exclusion

4.2.4. OUTCOME 2.4. MONITORING, LEARNING, AND INNOVATION PLATFORMS DEVELOPED AND STRENGTHENED

Task 2.4.1. Support adoption of novel data systems by service providers

USAID IUWASH Tangguh will integrate relevant water supply and sanitation service data systems for use by service providers and LGs that help them accomplish their work, mainstreaming collection, and use of data in daily operation and decision making by PDAMs, regulators, and government agencies. In Year 3, the water team will facilitate data collection for baseline of PDAM index, coordinating with national stakeholders in improving the PDAM performance indicators, support MPWH in national wali data, and water safety plan. The sanitation team will collect baseline data for sanitation index, facilitate MIS application for LLTT operators, and facilitating SMS target setting and costing for inclusive sanitation at selected local governments.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. PDAM Index data collection	Categorical exclusion
2. Conduct the FGD with MoPWH (Kasubdit Wil. 3 and their staff) and other institution (Kemenkes, Kemendagri and Kemenkeu) to support "Nasional Wali Data" (one data for all)	Categorical exclusion
3. Conduct and advocacy Water Policy/draft Permenpu SKKNI for WSP	Categorical exclusion
4. Sanitation index monitoring at local government	Categorical exclusion
5. Facilitation of MIS application for LLTT program at local government	Categorical exclusion Negative Determination With Condition
6. SMS target setting and costing	Categorical exclusion
7. Applying CWIS approach using sanitation map for SSK update in selected LG	Categorical exclusion

4.3. OBJECTIVE 3: IMPROVED WATER RESOURCES MANAGEMENT TO SUPPORT RESILIENT DRINKING WATER SERVICES

4.3.1. OUTCOME 3.1. IMPROVED WATER QUALITY, QUANTITY, AND RELIABILITY IN WATERSHEDS WHICH SUPPLY RAW WATER FOR DRINKING WATER SERVICES

Task 3.1.1. Raise awareness of the impact of climate change on water availability for watershed stakeholders including national and local government, communities, utilities, and private sector.

In PY-03, Objective 3 will continue to work on building awareness, particularly in new cities and districts. Lessons from PY-02 implementation show that it takes time to get stakeholders aware of WRM, climate change, and climate change threat to water resources' sustainability. Building awareness will be implemented through various avenues, e.g., workshop, socialization that allow the stakeholder to learn the issues from national ministries, universities, expert, and also other related sources. Their engagement in the CCVA process will be strategic where they will be able to comprehend the WRM issues in the face of climate change. The stakeholders' awareness and understanding will be vital as the team is building their commitment to take active roles as part of solution through CCA and/or SL action planning.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Continue stakeholders' consultation at national (KLHK, PSDA, Dit. AM) and regions (local government agencies, PDAM, WRM stakeholders)	Categorical Exclusion

Task 3.1.2. Map upstream water systems, downstream consumption patterns, and potential pollution sources, and prepare climate-resilient water resource vulnerability assessments and action plans

USAID IUWASH Tangguh will provide technical assistance to LGs, PDAMs, and universities to improve the mapping of water systems and consumption patterns. USAID IUWASH Tangguh will work with universities and institutes to downscale global climate models to provide localized predictions and to develop hydrological models to help water service providers understand the capacity of current infrastructure to cope with these impacts. During PY3, USAID IUWASH Tangguh team will conduct meeting and workshop on vulnerability assessment with KLHK and BMKG.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Consultation with KLHK on VA methodology	Categorical Exclusion
Workshops on VA with Bappenas and KLHK's participation from national as well as Vulnerability assessments	Categorical exclusion
Coordination with BMKG on climate projection	Categorical exclusion
FGD with BMKG & research institute on climate and climate projection	Categorical exclusion
FGD on use of mWater to capture VA's data & information	Categorical Exclusion

Task 3.1.3. Promote private sector investment into WRM activities to protect natural assets and invest in green infrastructure

USAID IUWASH Tangguh will share with businesses the results from watershed systems mapping and work to co-create solutions. USAID IUWASH Tangguh will work with local governments to develop proposals to access green investment and facilities such as the Green Climate Fund and green bonds. When these activities lead to private sector investments in green infrastructure, there will be potential negative to the environment which USAID IUWASH Tangguh will assess and ensure the project proponents will address accordingly. In PY3, the team will assess private sector landscape, prepare the material for roadshow to private sector, roadshow to business association, and meeting with Green Climate Fund and BPD LH.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
FGD on identification of WRM project pipeline, e.g., in West Kalimantan in collaboration with Planet Partnership	Categorical exclusion
Development of materials for roadshow to private sector	Categorical exclusion
Roadshow to private sector incl. CSR forum/fund channeling	Categorical exclusion
Meetings with GCF, BPD LH, and other potential funding sources	Categorical exclusion

Task 3.1.4. Implement and manage protection measures for watershed catchment areas to conserve biodiversity and water sources and improve sustainable water services

In partnership with government, businesses, and communities, USAID IUWASH Tangguh will implement activities in watersheds, including in water catchment areas for springs to reduce run-off and increase groundwater recharge. Such small-scale construction activities and use of test kit for water quality monitoring, installation of infiltration ponds and implementation of raw water protection measures have the potential to cause adverse impacts that can offset or eliminate the intended benefit. In PY3, the team will conduct meeting with KLHK, other ministries, and private sector.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Meetings with KLHK, other ministries, and private sector (intermittent, depending on opportunity)	Categorical exclusion
FGD and/or field activities, e.g., with funding from PDAM or local government	Categorical exclusion
Conducting training on implementation of CCVA recommendation at community level	Categorical exclusion

Task 3.1.5. Build capacity of local workforce to carry out watershed management activities such as construction of infiltration wells, improved sloping land management

USAID IUWASH Tangguh will work in conjunction with local government and experts from local universities, to provide hands-on training and certification in skills such as infiltration well construction, sloping land management, climate-smart agriculture, and installation and construction of gabions. In PY2, the team will conduct training need assessment, develop training modules, and trial the training.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Training on water resilience	Categorical exclusion
Trialing of the trainer	Categorical exclusion
Training in regions	Categorical exclusion Negative Determination With Condition

4.3.2. OUTCOME 3.2. IMPROVED WATER QUALITY, QUANTITY, AND RELIABILITY IN WATERSHEDS WHICH SUPPLY RAW WATER FOR DRINKING WATER SERVICES

Task 3.2.1. Establish or strengthen inclusive WRM committees including local government, private sector, communities, and utilities.

USAID IUWASH Tangguh will establish a platform to engage local government leadership and train the groups on advocacy, diversity and equity, and the utilization of climate projection and water resource data to inform decision making. In PY3, the team will conduct stakeholders consultation and conduct training for WRM committee.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
FGD with KLHK at national and local government, PDAM, and WRM stakeholders at watershed	Categorical exclusion

Task 3.2.2. Provide awareness-raising and training for government officials and WRM stakeholders on gender equity and inclusion, including gender-responsive budgeting.

USAID IUWASH Tangguh will train government officials on diversity, equity and inclusion with regard to WRP, including gender responsive budgeting, and collaborate with women groups to have a voice in decision making, planning and funding allocation. In PY3, the team will meet ministry of women's empowerment for gender responsive budgeting consultation.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
FGD or training programs integrating GESI issues	Categorical exclusion

Task 3.2.3. Ensure that relevant WRM information and data are publicly available, including production from springs and water usage statistics.

USAID IUWASH Tangguh will ensure access and information regarding water resources is publicly available and facilitate meetings to strengthen feedback loops from the community. In PY3, the team will meet WRM agencies and BMKG for WRM information and data availability and accessibility.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Meetings with PDAM, local government, and WRM stakeholders in watershed	Categorical exclusion
Training and development of WRM data/information in mWater platform	Categorical exclusion

4.3.3. OUTCOME 3.3. EXPANDED INFORMATION, ANALYSIS, AND ADVOCACY FOR CLIMATE-RESILIENT DECISION MAKING IN POLICY, PROGRAMS, AND OPERATIONS

Task 3.3.1. In partnership with BMKG, improve quality and accessibility of climate information and promote applied messaging for WRM decision makers.

USAID IUWASH Tangguh will create and disseminate climate information specific to WRM and train decision makers to access, understand and use the information. During Year 3, the team will coordinate with BMKG to develop WRM data package.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
FGDs with BMKG and research institute	Categorical exclusion
Development on packaging WRM data/information	Categorical exclusion

Task 3.3.2. Provide PDAMs with a real-time groundwater and surface water monitoring information system.

USAID IUWASH Tangguh will develop a real time groundwater and surface water monitoring information system for water utilities and collaborate with local universities to develop low-cost water utility water quality testing options. While training and capacity building activities do not have a pronounced effect on the natural or physical environment, use of test kits for water quality monitoring when implemented ineffectively may cause adverse impacts, such as from the mishandling of the chemicals, reagents, and equipment. In PY2, the team will start preparation meeting with KLHK and ESDM in water monitoring plan.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Meetings with KLHK and ESDM at national and Dinas Lingkungan Hidup at province/city/district on water monitoring	Categorical exclusion
Development/improvements of water monitoring system	Categorical exclusion

Task 3.3.3. Develop and equip a citizen scientist program to raise awareness of WASH/WRM data use and monitor water quality and quantity.

USAID IUWASH Tangguh will raise awareness on water resource issues and collaborate with the community to collect data on climate, weather and water quality, and provide test kit material and training. While training and capacity building activities do not have a pronounced effect on the natural or physical environment, use of test kits for water quality monitoring when implemented ineffectively may cause adverse impacts, such as from the mishandling of the chemicals, reagents and equipment. During PY3, the team will start to discuss with KLHK, PSDA, and ESDM for preparation of WRM awareness program.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Meetings with KLHK, PSDA, and ESDM at national and meetings with Dinas Lingkungan Hidup at province, city, district	Categorical exclusion
Piloting citizen scientist program (in certain locations)	Categorical exclusion

4.3.4. OUTCOME 3.4. STRENGTHENED NATIONAL AND SUBNATIONAL GOI WRM POLICY, GUIDANCE, AND PROGRAMS TO SUPPORT RESILIENT DRINKING WATER SERVICES

Task 3.4.1. Conduct gap analysis in policies and regulations for improved watershed-level WRM.

USAID IUWASH Tangguh will engage experts to analyze existing regulation and policies regarding WRM and produce recommendations for streamlining approaches to WRM. In PY3, the team will meet WRM stakeholders and drafting recommendation for improving watershed.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Serial FGD on anticipated development of Presidential Regulation (Peraturan Presiden) on Solo Watershed	Categorical exclusion
Consultation meetings with PDAM, local government, and WRM stakeholders in watershed	Categorical exclusion
Develop recommendation for policy improvements	Categorical exclusion

Task 3.4.2. Strengthen the enabling environment for watershed management and improve WRM capacity for upstream and downstream users.

USAID IUWASH Tangguh will facilitate collaboration between multiple government administrations located within geographical watersheds to improve management and develop agreements. In PY3, the team will meet KLHK, ESDM, PSDA, and other stakeholders to improve watershed management.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Meetings with KLHK at national and local government and WRM stakeholders in watershed	Categorical exclusion
Socialization of the PES to private sectors and other related stakeholders	Categorical exclusion
Roadshow to private sector and other WRM stakeholders	Categorical exclusion

Task 3.4.3. Ensure that climate-resilient WRM is integrated into government plans and budgets at all levels.

USAID IUWASH Tangguh will work with local government and community members to include climate resilient WASH and WRM in the village budget, including improved water storage, improved water piping system and access points as well as infiltration wells. Such small-scale construction activities and use of test kit for water quality monitoring, installation of infiltration ponds and implementation of raw water protection measures have the potential to cause adverse impacts that can offset or eliminate the intended benefit. In PY3, the team will conduct series of meetings with national stakeholders to discuss about integration of WRM into planning and budgeting.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Series of meetings with related WRM national and local stakeholders	Categorical exclusion
Advocacy that WRM programming is integrated in the planning and budgeting processes	Categorical exclusion

4.4. OBJECTIVE 4: INCREASED ADOPTION OF BEHAVIORS AND IMPROVED WOMEN'S PARTICIPATION AND LEADERSHIP ROLES THAT CONTRIBUTE TO IMPROVEMENTS IN WASH AND WRM

4.4.1. OUTCOME 4.1. LATRINE USE, MAINTENANCE, AND DESLUDGING BEHAVIOR BECOME SOCIAL REGULATED NORMS

Task 4.1.1. Develop SBC strategies targeted to sustainable sanitation systems

USAID IUWASH Tangguh will develop SBC strategy in collaboration with MoH to increase latrine use, maintenance, and desludging behaviors and to enable adoption of the behaviors and the catalyzation to become social norms. In PY3, the team will conduct dissemination of SBC strategy and develop campaign guidelines for WASH and WRM.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Dissemination of SBC Strategy	Categorical Exclusion
Develop campaign guideline for WASH and WRM	Categorical exclusion

Task 4.1.2. Increase household demand for WASH services

USAID IUWASH Tangguh SBC activities will focus on the engagement of community and empowering them to be able to analyze WASH and WRM conditions, develop and implement their action plan for better WASH and WRM conditions and engaging key stakeholders to advocate WASH access and better WASH services. During PY3, the team will support MOH in urban STBM implementation, HWWS promotion, and community entry for WRM participatory assessment.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
1. Facilitate the development of inclusive community working plan	Categorical exclusion
2. Support MoH for Urban STBM Implementation	Categorical exclusion
3. Conducting inclusive HWWS promotion In collaboration with MOH, LGs and community groups	Categorical Exclusion
4. HWWS study to support HWWS promotion.	Categorical exclusion
5. WASH and WRM HH promotion and education	Categorical exclusion
6. Conducting community entry and inclusive participatory assessment for WRM	Categorical exclusion
7. Develop inclusive community action plan to support WRM	Categorical exclusion
8. Develop campaign materials to increase households demands for WASH services and household contribution for WRM	Categorical exclusion

4.4.2. OUTCOME 4.2. PAYMENT FOR EQUITABLE AND ACCOUNTABLE WATER AND SANITATION SERVICES BECOME SOCIAL NORMS

Task 4.2.1. Develop an SBC campaign for payment for water and sanitation services

USAID IUWASH Tangguh will engage key stakeholders to conduct an SBC campaign and advocate people to pay for water and sanitation services. During PY3, the team will develop guideline for

marketing and promotion strategy and provide capacity building to operators on promotion, marketing, and customer services.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Capacity building in the fields of promotion, marketing, and customer service for WASH operators	Categorical exclusion
Assistance to WASH operators to develop marketing strategy and the implementation of the strategy	Categorical exclusion
Conducting campaign for payment for WASH services	Categorical Exclusion
Develop guideline of marketing strategy for PDAM (water and waste water)	Categorical exclusion

Task 4.2.2. Engage different media channel, influencer, and content provider

USAID IUWASH Tangguh will engage different media channels to broadcast WASH and WRM messages and utilize it to build awareness and furthermore create society’s movement that lead to adoption of behavior change and the shifting of new social norms that contributes to better WASH and WRM conditions. In PY3, the team will collaborate with local media channel, influencer, content creator, facilitate site visit, and establishing the citizen journalism.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Collaboration with local media channels, influencers and content providers to develop WASH and WRM content	Categorical Exclusion
Facilitate site visit/live in/media discussion together with content creators and influencers to develop inclusive WASH and WRM campaigns,	Categorical Exclusion
Assist communities to establish citizen journalists	Categorical Exclusion
Advocate MoCIT to promote WASH and WRM content	Categorical Exclusion

4.4.3. OUTCOME 4.3. INSTITUTIONAL PRIORITIZATION, COMMITMENT, AND PARTICIPATION IN WASH AND WRM SECTOR IMPROVEMENT, INCLUDING POOR INCLUSIVE FOR DATA DRIVEN DECISION MAKING, INCREASED

Task 4.3.1. Accelerate gender integration and women’s agency in WASH and WRM sectors

USAID IUWASH Tangguh will integrate GESI considerations across program implementation with a focus on women involvement, improving knowledge and capacity building, and encouraging women leadership and decision making, both at community and institutional levels. In the PY3 USAID IUWASH Tangguh will focus on development of module and guidelines on integration GESI into WASH and WRM sectors, facilitate training, meetings, and technical assistance to regional institution on gender mainstreaming.

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Develop gender instruments (modules and guidelines in integrating GESI into WASH and WRM Sectors)	Categorical Exclusion
Development of module and guideline to mainstream GESI in WASH and WRM	Categorical Exclusion

Expected USAID IUWASH Tangguh Activities	Environmental Determination
Facilitate training to mainstream GESI into WASH and WRM	Categorical Exclusion
Facilitate regular meeting at K/L level to examine topics on regulations, resources, institution, national strategy to accelerate gender mainstreaming at the regional level in WASH and WRM Sectors	Categorical exclusion
Provide technical assistance to strengthen the gender mainstreaming institution at Regional level in WASH and WRM Sectors (relevant stakeholder / OPD WASH and WRM; Gender Mainstreaming Working Group, Gender Drivers and Gender Focal Points) ; (GRBP, SADD, monitoring, evaluation, reports, and knowledge management)	Categorical exclusion
Assist districts/cities in formulating action plans for gender mainstreaming in the WASH and WRM sectors (specifically for districts/cities where PUG RANDA has to be arranged in 2023)	Categorical exclusion
Facilitate PUG working groups and focal points to review annual work plans (for districts/Cities that have prepared and implemented their work plans) and analyze GRBP for WASH and WRM	Categorical exclusion
Development of gender profiles (WASH and WRM Sectors)	Categorical exclusion
Capacity Strengthening for WASH operators regarding GESI integration	Categorical exclusion
Strengthening the capacity of community groups (women and men) to ensure their access and involvement in strategic decision-making to promote WASH and WRM, and to practice hygiene behavior in districts/cities	Categorical exclusion
GESI training in WASH and WRM, safeguarding policy, DO NO HARM principals (continuous for USAID IUWASH Tangguh internal staff)	Categorical exclusion

5. PRELIMINARY ENVIRONMENTAL MITIGATION AND MONITORING PLAN (EMMP) AND CLIMATE RISK MITIGATION

5.1. ENVIRONMENTAL IMPACT AND CLIMATE RISK MITIGATION AND MONITORING

The preliminary EMMP shown below lists potential areas of environmental risks based on the initial screening of USAID IUWASH Tangguh activities. Although, the majority of USAID IUWASH Tangguh tasks are not expected to result in adverse environmental impacts, and were recommended for Categorical Exclusion, a few activities indicated above require special considerations and actions to identify and mitigate potential adverse environmental impacts and considerations for mitigating climate risk. Exhibit 3 below lists those tasks categorized as Negative Determination with Conditions and Moderate Climate Risk. For each activity, the EMMP identifies potential adverse environmental impacts and the necessary steps the USAID IUWASH Tangguh team will take to mitigate these risks, monitor, and report on the results. If the mitigation measures outlined below are implemented, USAID IUWASH Tangguh supported activities are not expected to have any significant adverse impacts (and are likely to have beneficial impacts) on the environment.

Exhibit 3. PY3 Environmental Mitigation and Monitoring Plan

Activity Type	Activity Category	Task	Potential Adverse Impact	Mitigation Measures	Monitoring Indicator	Monitoring Frequency
OUTCOME 1.1 SAFELY MANAGED WASH AND WATER SECURITY POLICIES AND REGULATION CREATED OR IMPROVED, IMPLEMENTED, MONITORED AND ENFORCED AT THE NATIONAL AND LOCAL LEVELS						
Policy improvement	Technical Assistance	I.1.1: Develop and facilitate policies and regulations for improved WASH/WRM processes at national and local government levels.	While training, capacity building, policy and strategy development, are activities that do not have a pronounced effect on the natural or physical environment, when the WASH facilities are poorly designed and not according to the standard, it can result in shorter service life of the facility, leakage, thus fecal contamination to surface and groundwater, and the facility may not be used by the community.	USAID IUWASH Tangguh will follow the SNI standards on water and wastewater facility construction and ensure that the design of the facilities will take into consideration the mandatory drinking water quality and domestic wastewater quality standards.	ITI-1 (Number of new and/or revised laws, policies, regulations, or agreements in place that promote access to improved WASH services) will include verification that any new policies or regulations comply with SNI standards.	Annual

Exhibit 3. PY3 Environmental Mitigation and Monitoring Plan

Activity Type	Activity Category	Task	Potential Adverse Impact	Mitigation Measures	Monitoring Indicator	Monitoring Frequency
OUTCOME 1.2 - PUBLIC AND PRIVATE BUDGETS AND EXPENDITURES THAT PRIORITIZE EQUITABLE, GENDER RESPONSIVE, CLIMATE RESILIENT, AND SUSTAINABLE WASH AND WRM SERVICES INCREASED						
5.1.1.1	Financial Assistance	<p>1.2.2 Support financial planning and analysis at LG, PDAM, and UPTD service provider levels.</p> <p>1.2.3 Identify financing opportunities and create pipeline of WASH-/WRM-related investments.</p>	It is potential to develop the FS or business plan of the project that have adverse impact to the environment such as development of IPLT	USAID IUWASH Tangguh will make sure that local government will follow the environmental law on environmental impact assessment	IT 1-4 Dollar mobilized to the water and sanitation as result of USG assistance	Annual
OUTCOME 2.1 - CAPACITY OF PROFESSIONALIZED WASH AND WRM WORKFORCE INCREASED						
Capacity building	Training	2.1.1 - Apply workforce development framework to support service providers.	The training will be conducted in class and outdoor. For the outdoor training there is potential adverse impact both to the participants and to the environment.	For the outdoor training, USAID IUWASH Tangguh will make sure that the training will follow safety procedures	IT 2.1 WASH/WRM workers with improved skills	Quarterly
OUTCOME 2.2 - PERFORMANCE OF DRINKING WATER AND SANITATION SERVICE PROVIDERS INCREASE						
Capacity building	Training	2.2.1 - Develop portfolio approaches to improving operational and financial efficiencies.	The training will be conducted in class and outdoor. For the outdoor training there is potential adverse impact both to the participants and to the environment.	For the outdoor training, USAID IUWASH Tangguh will make sure that the training will follow safety procedures	Water and sanitation services sector institution strengthened to managed waterresources or water supply and sanitation services as a result of USG assistance	Annual

Exhibit 3. PY3 Environmental Mitigation and Monitoring Plan

Activity Type	Activity Category	Task	Potential Adverse Impact	Mitigation Measures	Monitoring Indicator	Monitoring Frequency
OUTCOME 2.3 - CITY-WIDE INCLUSIVE, CLIMATE-RESILIENT, AND FINANCIALLY VIABLE WASH AND WRM INSTITUTIONAL ARRANGEMENTS AND SERVICE MODELS ESTABLISHED AND EXPANDED						
Capacity building	Training	2.3.1. Expand menu of service model options for PDAM and LG integration and adoption	RPAM training will be conducted in class and outdoor to visit intake, transmission line, production unit, distribution system, and house connection to exercise the modules of RPAM in the field.	The outdoor activities will risk the system and the participants themselves, for instance the river intake usually located in riverbank that not easy to access, so it will need safety tools and procedure to be followed	IT 2.3 Number of people gaining access to SMDW services as a result of USG assistance	Annual
OUTCOME 3.1 - IMPROVED WATER QUALITY, QUANTITY, AND RELIABILITY IN WATERSHEDS WHICH SUPPLY RAW WATER FOR DRINKING WATER SERVICES						
Capacity Building	Training	3.1.5. Build capacity of local workforce to carry out watershed management activities such as construction of infiltration wells, improved sloping land management	The training of infiltration pond and gabion installation will mostly in the field that have potential hazard to the environment and the participants	USAID IUWASH Tangguh will make sure that the training will be conducted following the safety tools and procedures	IT 3-5 Institutions with improved capacity to assess and address climate change risk supported by USG assistance	Quarterly

Exhibit 4. PY3 Climate Risk Mitigation Plan

Task	Climate Risk	Opportunity	Climate Risk Management Options	Risk Addressing Activities	Project Implementation
OUTCOME 2.3. CITY-WIDE INCLUSIVE, CLIMATE-RESILIENT, AND FINANCIALLY VIABLE WASH AND WRM INSTITUTIONAL ARRANGEMENTS AND SERVICE MODELS ESTABLISHED AND EXPANDED					
Task 2.3.1: Expand menu of service model options for PDAM and LG integration and adoption.	<p>Floods (from stronger storms, inadequate waste management, and poor maintenance of drainage canals) could damage urban infrastructure, especially services delivery infrastructure, resulting in service disruptions, a need for increased or new Gol investments to repair damage, negative impacts on health, and potential loss of faith in Gol ability to deliver quality services</p> <ul style="list-style-type: none"> • Longer dry seasons and stronger storms in the rainy season could increase reliance on river and spring water by service providers (i.e., unsafe water supplies), which in turn could diminish raw water supplies; (e.g., cities are losing about 50% of spring water sources because of reliance on these sources to meet demands and expectations to increase coverage) • Damaged pumps due to sea level rise and saltwater intrusion. 	<p>Improve water and sanitation infrastructure and infrastructure services by making water and sanitation systems more resilient to future climate variability and change may also yield immediate results by addressing insufficient water and sanitation infrastructure and an inadequate supply of clean water and access to sustainable sanitation.</p> <ul style="list-style-type: none"> • The need to rebuild after extreme events may provide an opportunity to inventory and construct improved and more resilient water and sanitation infrastructure. • Improve water conservation measures may reduce the need to transport water, which is energy intensive. Saving energy from transporting water will reduce greenhouse gas emissions. 	<p>Design urban WASH investments to “reach” more individuals potentially affected by climate change.</p> <ul style="list-style-type: none"> • Interest in private sector to cope with climate stressors to increase operational security for investment • Large base of local knowledge and solutions that can provide models for scalable solutions in other areas 	<p>Identify changes in demographics, urbanization, and land use that could dictate a shift in WASH investments, particularly in the face of the exacerbating influence of climate change.</p> <ul style="list-style-type: none"> • Identify and prioritize technologies for water-related adaptation. • Improve design and construction of water supply and sanitation infrastructure to account for the potential for climate-related risks. • Improve water storage, conservation, and water demand management to account for climate-driven changes in supply and demand. 	<p>Climate consideration in the delivery of technical assistance and infrastructure siting during activity and project level implementation, reflected in the activity design and its associated environmental procedures and climate risk assessment</p>

Exhibit 4. PY3 Climate Risk Mitigation Plan

Task	Climate Risk	Opportunity	Climate Risk Management Options	Risk Addressing Activities	Project Implementation
	<ul style="list-style-type: none"> • Inundation of low-lying latrines and septic systems caused by sea level rise. • Reduced access of marginalized populations to sanitation infrastructure due to flooding and extreme storm events. • High levels of suspended sediments, potentially exceeding water treatment capacity, due to flood waters. • Higher pollutant concentrations in surface waters and reduced efficiency of sanitation systems due to prolonged drought. • Lack of willingness to shift to piped water, potentially from insufficient raw water supplies, and continued use of groundwater based on failures of events 				
OUTCOME 3.1 IMPROVED WATER QUALITY, QUANTITY, AND RELIABILITY IN WATERSHED WHICH SUPPLY RAW WATER FOR DRINKING WATER SERVICES					
Task 3.1.3: Promote private sector investment into WRM activities to protect natural assets and invest in green infrastructure.	Lack of priority and reduced resources for WASH/WRM activities due to diversion of private sector investment to address extreme events and other climate impacts.	Provides an opportunity to work with the Gol, at all levels, on water planning that includes climate risks and incorporates the interest of the private sector in helping to develop this sector and reach	Invest In Climate-Related Information Collection and Management Systems. <ul style="list-style-type: none"> • Strengthen climate information systems, building on existing 	Develop a screening tool to assess the viability of green investments in each province, conforming with finance facility eligibility requirements from possible funding mechanisms such as green	Leverage existing private sector landscape assessment and existing relationships with companies such as Coca Cola, Nestle, and Cargill to promote long-term investments in

Exhibit 4. PY3 Climate Risk Mitigation Plan

Task	Climate Risk	Opportunity	Climate Risk Management Options	Risk Addressing Activities	Project Implementation
		the 2030 Sustainable Development Goals.	regional and national networks.	bonds or the Green Climate Fund [GCF]	climate-resilient WASH/WRM as part of sustainable business planning.
Task 3.1.4: Implement and manage protection measures for watershed catchment areas to conserve biodiversity and water sources and improve sustainable water services.	Watershed management and water services in Indonesia are prone to floods, droughts, saltwater intrusion resulting in service delivery disruption and lack of clean water for the community. These issues have effects and outcomes that are exacerbated by climate change impacts on a range of spatial and temporal scales		<ul style="list-style-type: none"> Build capacity of national governments to harmonize data across regions. Build relevant national and/or regional research programs on the links between climate and water supply and sanitation (e.g., vulnerability index). 	Collaborate with local stakeholders and enterprises to monitor groundwater levels and to attract climate financing and community buy in to implement the activities.	Implement activities in watersheds, including in water catchment areas for springs to reduce run-off and increase groundwater recharge, such as: , such as reforestation, construction of infiltration wells, and installation of weather and spring flow monitoring systems.
Task 3.1.5: Build capacity of local workforce to carry out watershed management activities such as construction of infiltration wells, improved sloping land management.	Reduced number of participants attending the capacity building activities as a result of infrastructure damage and community dislocation due to flooding or sea level rise.			Work with local government and certification agency to recognize skilled WRM practitioners (individuals and businesses) and link them with government, donors, and businesses planning to invest in WRM activities.	Leverage knowledge from local universities, to provide hands-on training in skills such as infiltration well construction, sloping land management, climate-smart agriculture, and installation and construction of gabions.
OUTCOME 3.3 EXPANDED INFORMATION, ANALYSIS, AND ADVOCACY FOR CLIMATE-RESILIENT DECISION MAKING IN POLICY, PROGRAMS, AND OPERATIONS					
Task 3.3.2: Provide PDAMs with a real-time groundwater and surface water monitoring information system.	There is no regular monitoring and data base of groundwater level and water quality, as a result no early warning system for climatic and disaster risks	Provides an opportunity to work with the Gol, at all levels, on water planning that includes climate risks and incorporates the interest of the private sector in helping to	<ul style="list-style-type: none"> Invest In Climate-Related Information Collection and Management Systems. Strengthen climate information systems, 	Develop a real-time groundwater and surface water monitoring information system for water utilities, national and regional agencies	Collaborate with technical ministries to develop data value chain, from generation, to analysis agregation, and visualization.

Exhibit 4. PY3 Climate Risk Mitigation Plan

Task	Climate Risk	Opportunity	Climate Risk Management Options	Risk Addressing Activities	Project Implementation
	that can be accessed by the water utilities.	develop this sector and reach the 2030 Sustainable Development Goals.	<p>building on existing regional and national networks.</p> <ul style="list-style-type: none"> • Build capacity of national governments to harmonize data across regions. • Build relevant national and/or regional research programs on the links between climate and water supply and sanitation (e.g., vulnerability index). 	responsible for watershed management and WRM	
OUTCOME 3.4. STRENGTHENED NATIONAL AND SUB-NATIONAL GOI WRM POLICY, GUIDANCE, AND PROGRAM TO SUPPORT RESILIENT DRINKING WATER SERVICES					
Task 3.4.3: Ensure that climate-resilient WRM is integrated into government plans and budgets at all levels.	Lack of enforcement of government policies and regulations related to WASH/WRM due to diversion of government staff and resources to address extreme events and other climate impacts.	Provides an opportunity to work with the Gol, at all levels, on water planning that includes climate risks and incorporates the interest of the private sector in helping to develop this sector and reach the 2030 Sustainable Development Goals.	<ul style="list-style-type: none"> • Build capacity of national governments to harmonize data across regions. • Build relevant national and/or regional research programs on the links between climate and water supply and sanitation (e.g., vulnerability index). 	Engage cities, districts, and provinces to influence their five-year planning and budgeting cycle	Work with local government and community members to include climate-resilient WRM activities in village budgets
OUTCOME 4.1 LATRINES USE, MAINTENANCE, AND DESLUDGING BEHAVIOR ADOPTED AND BECOME SOCIAL REGULATED NORM					
Task 4.1.1: Develop SBC strategies	<ul style="list-style-type: none"> • Reduced participation in sanitation and hygiene training 	<ul style="list-style-type: none"> • Reduce gender inequalities through efforts to increase 	<ul style="list-style-type: none"> • Deliver social behavior change to improve 	<ul style="list-style-type: none"> • Develop social behavior change for water 	<ul style="list-style-type: none"> • Incorporate climate change assessment into activity

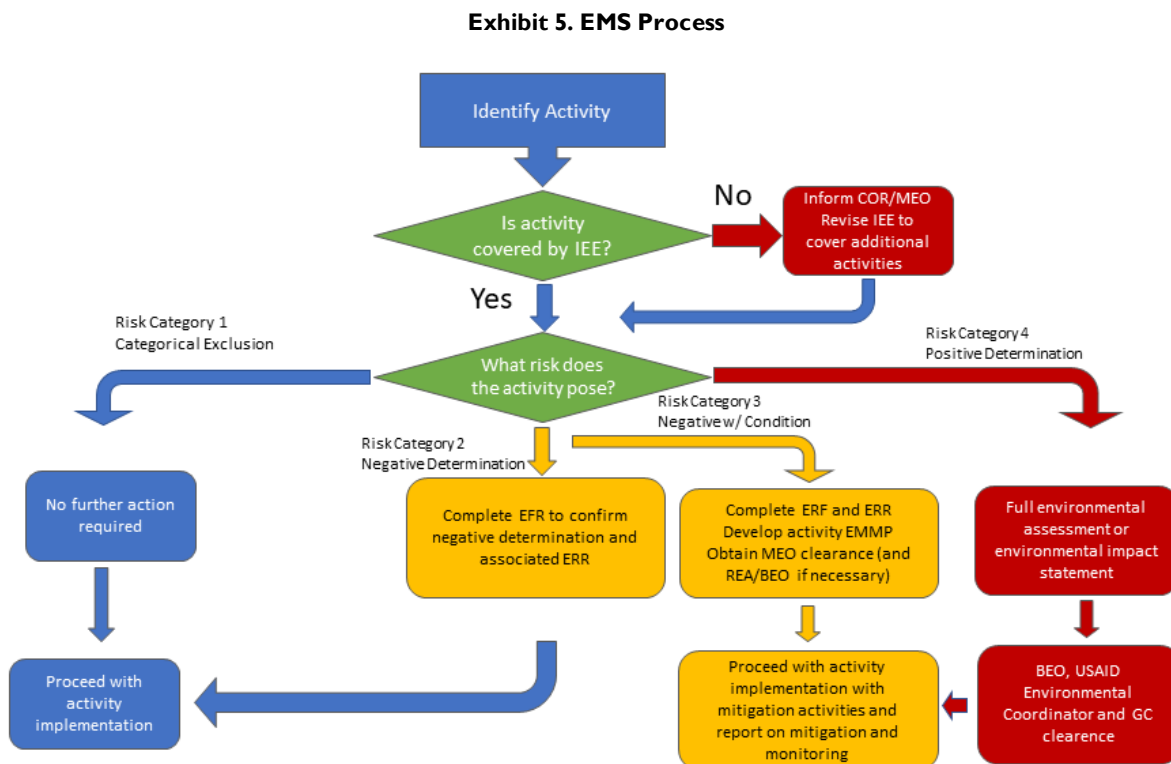
Exhibit 4. PY3 Climate Risk Mitigation Plan

Task	Climate Risk	Opportunity	Climate Risk Management Options	Risk Addressing Activities	Project Implementation
<p>targeted to sustainable sanitation systems.</p>	<p>and awareness-raising especially for women due to community disruption and dislocation due to flooding, sea level rise, and extreme events.</p> <ul style="list-style-type: none"> • Increased public health risks due to inundation and overflow of latrines and septic systems caused by increased precipitation and storm events. • Increased incidence of waterborne infectious diseases due to higher temperatures and flooding. • Increased workload, time burden, and caloric expenditure for women and girls. 	<p>of sanitation systems can support women in maintaining sanitary household conditions and reducing disease in themselves and their families.</p> <ul style="list-style-type: none"> • Improved behaviors by making sanitation systems more resilient to future climate variability and change may also yield immediate results by addressing insufficient sanitation infrastructure 	<p>public education and outreach efforts related to the importance of safe sanitation services to reduce the methane emission from unmanaged wastewater, and other factors relevant to sanitation-related climate impacts and adaptation.</p>	<p>security, sanitation and hygiene at the household, WASH institutional and local business levels to prevent inundation and overflow of latrines and septic systems caused by increased precipitation and storm events.</p> <ul style="list-style-type: none"> • Strengthen disaster planning and response for safely managed sanitation services. • Education and behavior change components at the individual, community, and government level regarding development of climate resilient cities. • Community feedback system to provide impetus for governmental action with determined protocols 	<p>planning and implementation.</p> <ul style="list-style-type: none"> • Climate consideration in the delivery of social behavior change for sustainable sanitation system (to include technical assistance and infrastructure siting) during activity and project level implementation, reflected in the activity design and its associated environmental procedures and climate risk assessment

6. IMPLEMENTING THE EMMP

6.1. PROCEDURES

The USAID IUWASH Tangguh team will establish a comprehensive environmental management system (EMS) that will facilitate the team’s implementation of USAID environmental guidelines. Exhibit 5 below shows the EMS process, and the steps the USAID IUWASH Tangguh team will follow in complying with USAID’s Regulation 216 requirements.



For each identified risk and associated set of mitigation actions, the USAID IUWASH Tangguh team will, prior to implementation, carry out an activity screening using the Environmental Review Form (ERF), shown in Annex I, and complete the Environmental Review Report (ERR). These documents will be incorporated in the TAMIS system. When the Contractor requests for obligation of fund approval from USAID these documents will be attached.

Step 1: Environmental Screening and Review

- | | |
|----------|---|
| Step 1.1 | During initial activity planning with local partners, identify those activities under each Task and Sub-Task using the initial screening guide above that will require more thorough environmental reviews. |
| Step 1.2 | Create activity in Environmental Compliance Module in TAMIS (see below) |
| Step 1.3 | Determine activity type using ERF Step 3a (Annex 4) as applicable. |
| Step 1.4 | Determine activity type and risk category as follows: <ol style="list-style-type: none"> I. Categorical Exclusion (Risk Category 1): activities that do not have an effect on the natural or physical environment. Review Annex I: Screening Tool |

for Activities with No Foreseen Risk, if ALL sub-project activities meet one or more of the criteria in the tool, no additional mitigation or monitoring ties are required. Proceed with activity.

2. **Negative Determination (Risk Category 2):** Activities with no significant adverse effects with normal good practices. Complete Environmental Review Form (ERF) confirming negative determination and associated Environmental Review Report.
3. **Negative Determination with Conditions (Risk Category 3):** Activities with potential adverse effects but which can be mitigated and monitored with normal good practices. Complete Environmental Review Form (ERF) confirming negative determination and associated Environmental Review Report. Develop activity EMMP incorporating applicable lines from USAID IUWASH Tangguh Project Environmental Mitigation, Monitoring and Reporting Plan (EMMP). Submit for USAID/Indonesia MEO for approval.
4. **Positive Determination, High Risk Activities (Risk Category 4):** Activities for high potential for adverse biophysical or health impacts. Activity will require IEE Amendment, Environmental Assessment or Environmental Impact Statement. Activity will require Bureau Environmental Officer (BEO), Agency’s Environmental Coordinator, and the Office of General Counsel approval.

Note – we do not anticipate carrying out activities considered high risk under USAID IUWASH Tangguh

Step 1.5	Develop Activity ERF per ERF instructions
Step 1.6	Develop Activity ERR and Activity EMMP for activities with Risk Categories 2
Step 1.7	<u>Prior to obligating any USAID funds</u> , USAID Environmental Officer’s approval of the determination and threshold decisions as determined for those activities in Risk Categories 2, 3 and 4 will be submitted to the COR and Mission Environmental Officer (MEO) for approval.
Step 1.8	Incorporate EMMP in implementing partner agreement or grant

The team will monitor and report on the results of the mitigation actions using the Environmental Mitigation and Monitoring Report (EMMR) that team members will fill out on a quarterly basis. The format of the EMMR is incorporated in the TAMIS system and each designated environmental officer in each region will complete the report in TAMIS on a quarterly basis.

Step 2: Environmental Mitigation and Monitoring

Step 2.1	Review mitigation measures, responsibilities for implementation, responsibilities for monitoring with implementing partners and/or beneficiaries.
Step 2.2	Monitor implementation of mitigation measures as described in the activity EMMP.
Step 2.3	Periodic review of implementation of mitigation measures.
Step 2.4	Activity EMMP Report filled. Reported to USAID quarterly while activities are ongoing and at activity completion. Process data for reports.

Step 2.5 At completion of activity, complete activity EMMP in TAMIS and mark activity as completed.

The Contractor will not undertake new activities outside the scope of the documents mentioned above before receiving written USAID approval of environmental documentation amendments. All proposed activities planned to be implemented in PY-1 fall under either categorical exclusion and/or negative determination with conditions as defined in the USAID rules and regulation 22 CFR 216.

6.2. ROLES AND RESPONSIBILITIES

Implementing the EMMP will require the USAID IUWASH Tangguh team to integrate environmental analysis, planning and monitoring into activity planning and carry it through activity implementation across all objectives of the activity. The USAID IUWASH Tangguh Deputy Chief of Party (DCOP) Technical will be responsible for ensuring USAID environmental compliance requirements are met. He will also work closely with project staff, partners, and sub-awardees to ensure that these environmental compliance considerations are incorporated into their project activities and to provide training when necessary on environmental impact awareness and planning. He will be assisted by the Objective Leads for the activities under their portfolio. Since USAID IUWASH Tangguh is a field-oriented project, much of the responsibility for integrating environmental analyses and monitoring into activity design will fall to the regional team leaders with backup support from the Jakarta-based technical teams.

The roles and responsibilities of the key project personnel for the environmental management and compliance of the project are summarized in Exhibit 6 below.

Exhibit 6. Roles and Responsibilities		
Person(s) responsible	Schedule	Tasks
Regional Managers		<ul style="list-style-type: none"> Screening all proposed activities in their respective districts and cities during the initial planning staff to identify any potential environmental impacts. Completing the Environmental Review Forms (ERF) and with support from the Jakarta technical teams, define needed mitigation measures for low-risk and moderate risk activities. Reviewing the implementation of mitigation measures by local partners and the project to improve performance and conducting periodic site visits. Drafting required monitoring reports and participating in periodic reviews of compliance with USAID environmental policy. Tracking ongoing activities and archiving completed activities using the Environmental Compliance module in TAMIS.
DCOP - Technical		<ul style="list-style-type: none"> Supporting Regional Managers during the initial review of planned activities to ensure that activities rated as low-risk and moderate-risk are properly identified and have completed ERFs. Participate in periodic reviews of USAID IUWASH Tangguh supported activities to ensure that field teams are following project environmental review, mitigation and monitoring guidelines. Conduct periodic site visits and ensure compliance. Mobilize technical expertise to support Regional Specialists and Regional Managers in their review of planned activities and development of mitigation and monitoring activities. Lead assessments of potential national implementing partners and grantees in terms of their internal environmental review, mitigation and monitoring processes.

Exhibit 6. Roles and Responsibilities

Person(s) responsible	Schedule	Tasks
Urban Sanitation Specialist (EMMP Focal Point)		<ul style="list-style-type: none"> Periodically update the environmental mitigation and monitoring plan for all activities in the region Ensure that all activities are comply with USAID environmental safeguard with monitoring of all activities in TAMIS Regularly check TAMIS to make sure that all activities have filled the environmental compliance section, either categorical exclusion or negative determination activities. Provide input of environmental compliance activity progress for bi-weekly, quarterly, and annual report Conduct regular meetings with environmental compliance person in charge in all regions for updating environmental safeguard related issues Conducting field visit to check compliance in the field especially for negative determination with condition activities
Technical, Objective 2 Sanitation and Hygiene Service Leads		<ul style="list-style-type: none"> Support Urban Sanitation Specialist (EMMP Focal point) in ensuring that all activities are comply with USAID environmental safeguard Support EMMP Focal Point in TAMIS checking
USAID TOCOR		<ul style="list-style-type: none"> Periodic site visits Oversee project activities and monitor EMMP compliance

In order to incorporate environmental considerations throughout USAID IUWASH Tangguh implementation, activity partners and staff will be oriented to the activity’s commitment to environmental impact mitigation and environmentally sustainable practices. Whenever possible, field staff will be encouraged to incorporate awareness-raising activities focused on environmental management and sustainable practices into assistance provided to beneficiaries.

6.3. REPORTING

The USAID IUWASH Tangguh team shall report the status of environmental compliance issues and the implementation of required mitigation and monitoring measures. The report includes a review of progress of construction activities. The regular report will be included in the regular USAID IUWASH Tangguh report such as quarterly and annual reports to help determine if environmental mitigation and monitoring procedures are fully in place.

The USAID/Indonesia Mission Environmental Officer (MEO) and the USAID IUWASH Tangguh TOCOR shall make regular spot- check site visits to consult with program implementers; determine if associated mitigation and monitoring measures are being implemented; identify unforeseen impacts; and recommend adjustments in environmental mitigation and monitoring, as needed.

ANNEXES

ANNEX I. ENVIRONMENTAL REVIEW FORM FOR USAID IUWASH TANGGUH SUB-AWARDS

A. Applicant information

-	Parent award or project
Individual contact and title	Address, phone & email (if available)
Proposed Sub-award (brief description)	Amount of funding requested
	Period of performance
	Location(s) of proposed activities

B. Activities, screening results, and findings

Proposed activities (Provide DESCRIPTIVE listing. Continue on additional page if necessary)	Screening result (Step 3 of instructions)			Findings (Step 6 of instructions. Complete for all moderate/unknown and high-risk activities ONLY)		
	Very Low Risk	High-Risk*	Moderate or unknown risk*	Significant adverse impacts are very unlikely	With specified mitigation, significant adverse impacts are very unlikely	Significant Adverse impacts are possible
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

*These screening results require completion of an Environmental Review Report

C. Certification:

I, the undersigned, certify that:

1. The information on this form and accompanying environmental review report (if any) is correct and complete.
2. Implementation of these activities will not go forward until specific approval is received from the C/AOTR.
3. All mitigation and monitoring measures specified in the Environmental Review Report will be implemented in their entirety, and that staff charged with this implementation will have the authority, capacity and knowledge for successful implementation.

(Signature) _____ (Date) _____

(Print name) _____ (Title) _____

Note: if screening results for *any activity* are “high risk” or “moderate or unknown risk,” this form is not complete unless accompanied by an environmental review report.

BELOW THIS LINE FOR USAID USE ONLY

Notes:

1. For clearance to be granted, the activity **MUST** be within the scope of the activities for which use of the ERF is authorized in the governing IEE. **Review IEE before signature.** If activities are outside this scope, deny clearance and provide explanation in comments section. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.
2. Clearing an ERF containing one or more findings that **significant adverse impacts are possible** indicates agreement with the analysis and findings. It does NOT authorize activities for which “significant adverse impacts are possible” to go forward. It DOES authorize other activities to go forward. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.

Clearance record

C/AOTR <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
USAID/Indonesia MEO <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
Regional Env. Advisor (REA) <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)

Bureau Env. Officer (BEO)*	(print name)	(signature)	(date)
<input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied			

C/AOTR, MEO and REA clearance is required. BEO clearance is required for all “high risk” screening results and for findings of “significant adverse impacts possible. The BEO may review”

Note: if clearance is denied, comments must be provided to applicant (use space below & attach sheets if necessary)

ANNEX 2. INSTRUCTIONS FOR ENVIRONMENTAL REVIEW OF USAID IUWASH TANGGUH SUB-AWARDS

Note: These instructions accompany the attached “Environmental Review Form for USAID IUWASH Tangguh Sub-award Activities” (ERF).

Step 1. Provide requested “Applicant information” (Section A of the ERF)

Step 2. List all proposed activities

In Section B of the form, list all proposed activities.

Activities are a desired accomplishment or output: e.g. seedling production, road rehabilitation, school construction. Each activities has entailed *actions* for example, road rehabilitation includes survey, grading, culvert construction, compaction, etc. *Be aware of these entailed actions, but do NOT list them.*

List activities **DESCRIPTIVELY**. For example, “training” is not a sufficient activity listing. The listing must specify **WHO** is being trained, and in **WHAT**.

Step 3a. Screening: Identify low-risk and high-risk activities

For *each* activity you have listed in Section B of the form, refer to the list below to determine whether it is a listed low-risk or high-risk activity.

If an activity is specifically identified as “very low risk” or “high risk” in the list below, indicate this in the “screening result” column in Section B of the form.

Very low-risk activities (Activities with low potential for adverse biophysical or health impacts; including §216.2(c)(2))	High-risk activities (Activities with high potential for adverse biophysical or health impacts; including §216.2(d)(1))
<p>Provision of education, technical assistance, or training. (Note that activities directly affecting the environment. do not qualify.) Community awareness initiatives.</p> <p>Technical studies and analyses and other information generation activities not involving intrusive sampling of endangered species or critical habitats. Document or information transfers.</p> <p>Small-scale construction. Construction or repair of facilities if total surface area to be disturbed is under 10,000 sq. ft. (approx. 1,000 sq. m.) (and when no protected or other sensitive environmental areas could be affected).</p> <p>Capacity for development. Studies or programs intended to develop the capability of recipients to engage in development planning. (Does NOT include activities directly affecting the environment) Small-scale Disaster Risk Management activities such as retrofitting, for which the answer to ALL</p>	<p>River basin development New lands development</p> <p>Planned resettlement of human populations.</p> <p>Penetration road building, or rehabilitation of roads (primary, secondary, some tertiary) over 10 km length, and any roads which may pass through or near relatively undegraded forest lands or other sensitive ecological areas Substantial piped water supply and sewerage construction. Major bore hole or water point construction. Large-scale irrigation; Water management structures such as dams and impoundments</p> <p>Drainage of wetlands or other permanently flooded areas. Large-scale agricultural mechanization. Agricultural land leveling.</p> <p>Procurement or use of restricted use pesticides, or wide-area application in non-</p>

<p>SUPPLEMENTAL SCREENING QUESTIONS is “NO.”</p>	<p>emergency conditions under non-supervised conditions. (Consult MEO.)</p> <p>Light industrial plant production or processing (e.g., sawmill operation, agro-industrial processing of forestry products, tanneries, cloth-dyeing operations).</p> <p>High-risk and typically not funded by USAID:</p> <p>Actions affecting protected areas and species. Actions determined likely to significantly degrade protected areas, such as introduction of exotic plants or animals.</p> <p>Actions determined likely to jeopardize threatened & endangered species or adversely modify their habitat (esp. wetlands, tropical forests)</p> <p>Activities in forests, including:</p> <ul style="list-style-type: none"> ▪ Conversion of forest lands to rearing of livestock ▪ Planned colonization of forest lands ▪ Procurement or use of timber harvesting equipment ▪ Commercial extraction of timber ▪ Construction of dams or other water control structures that flood relatively undegraded forest lands ▪ Construction, upgrading or maintenance of roads that pass through relatively non-degraded forestlands. (Includes temporary haul roads for logging or other extractive industries)
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(This list of activities is taken from the text of 22 CFR 216 and other applicable laws, regulations and directives)

Step 3b: Identifying activities of unknown or moderate risk.

Not all activities identified as “very low risk” or “very high risk” are considered to be of “unknown or moderate risk.” Common examples of moderate-risk activities are given in the table below.

Check “moderate or unknown risk” under screening results in Section B of the form for ALL such activities.

<p>Common examples of moderate-risk activities</p>	
<p>CAUTION: If ANY of the activities listed in this table may adversely impact (1) protected areas, (2) other sensitive environmental areas, or (3) threatened and endangered species and their habitat, THEY ARE NOT MODERATE RISK. All such activities are HIGH RISK ACTIVITIES.</p>	
<p>Small-scale agriculture, NRM, sanitation, etc. (You may wish to define what “small scale” means for each activity)</p>	<p>Sampling. Technical studies and analyses or similar activities that could involve intrusive</p>

Common examples of moderate-risk activities

CAUTION:

If ANY of the activities listed in this table may adversely impact (1) protected areas, (2) other sensitive environmental areas, or (3) threatened and endangered species and their habitat, THEY ARE NOT MODERATE RISK. All such activities are HIGH RISK ACTIVITIES.

Agricultural experimentation. Controlled and carefully monitored agricultural experimentation exclusively for the purpose of research and field evaluation of MORE than 4 ha.

NOTE Biotechnology/GMOs: No *biotechnology testing or release* of any kind are to take place within an assisted country until the host countries involved have drafted and *approved* a regulatory framework governing biotechnology and biosafety.

All USAID-funded interventions, which involve biotechnologies, are to be informed by the ADS 211 series governing "Biosafety Procedures for Genetic Engineering Research". In particular this guidance details the required written approval procedures needed before transferring or releasing GE products to the field.

Medium-scale construction. Construction or rehabilitation of facilities or structures in which the surface area to be disturbed exceeds 10,000 sq. ft (1000 sq meters) but funding level is \$200,000 or less. (E.g. small warehouses, farm-packing sheds, agricultural trading posts, produce market centers, and community training centers.)

Rural roads. Construction or rehabilitation of rural roads meeting the following criteria:

- Length of road work is less than ~10 km
- No change in alignment or right of way
- Ecologically sensitive areas are at least 100 m away from the road and not affected by construction or changes in drainage.
- No protected areas or relatively undegraded forests are within 5 km of the road.

Title II & III Small-Scale Infrastructure. Food for Development programs under Title II or III, involving small-scale infrastructure with the known potential to cause environmental harm (e.g., roads, bore holes).

Quantity imports of commodities such as fertilizers

sampling, of endangered species or critical habitats. (Includes aerial sampling.)

Water provision/storage. Construction or rehabilitation of small-scale water points or water storage devices for domestic or non-domestic use. Water points must be located where no protected or other sensitive environmental areas could be affected.

NOTE: USAID guidance on water quality requires testing for arsenic, nitrates, nitrites and coliform bacteria.

Support for intermediate credit institutions when indirect environmental harm conceivably could result.

Institutional support grants to NGOs/PVOs when the activities of the organizations are known and may reasonably have adverse environmental impact.

Pesticides. Small-scale use of USEPA-registered, least-toxic general-use pesticides. Use must be limited to NGO-supervised use by farmers, demonstration, training and education, or emergency assistance.

NOTE: Environmental review (see step 5) must be carried out consistent with USAID Pesticide Procedures as required in Reg. 16 [22 CFR 216.3(b)(1)].

Nutrition, health care or family planning, if (a) some included activities could directly affect the environment (e.g., construction, supply systems, etc.) or (b) biohazardous healthcare waste (esp. HIV/AIDS) is produced, syringes are used, or blood is tested.

Step 4. Determine if you must write an Environmental Review Report

Examine the “screening results” as you have entered them in Table I of the form.

- i. If ALL the activities are “very low risk,” then no further review is necessary. In Section C of the form, check the box labeled “very low risk activities.” Skip to Step 8 of these instructions.
- ii. If ANY activities are “unknown or moderate risk,” you MUST complete an ENVIRONMENTAL REVIEW REPORT addressing these activities. Proceed to Step 5.
- iii. If ANY activities are “high risk,” note that USAID’s regulations usually require a full environmental assessment study (EA). Because these activities are assumed to have a high probability of causing significant, adverse environmental impacts, they are closely scrutinized. Any proposed high-risk activity should be discussed in advance with USAID. Activity re-design is often indicated.

In some cases, it is possible that reasonable, achievable mitigation and monitoring can reduce or eliminate likely impacts so that a full EA will not be required. If the applicant believes this to be the case, the Environmental Review Report must argue this case clearly and thoroughly. Proceed to Step 5.

Step 5. Write the Environmental Review Report, if required

The Environmental Review Report presents the environmental issues associated with the proposed activities. It also documents mitigation and monitoring commitments. Its purpose is to allow the applicant and USAID to evaluate the likely environmental impacts of the project.

For a single, moderate risk activity, the Environmental Review Report is typically a SHORT 4–5 page document. The Report will typically be longer for (1) multiple activities; (2) activities of high or unknown risk; and/or (3) when a number of impacts and mitigation measures are being identified and discussed.

The Environmental Review Report follows the outline below. Alternate outlines are acceptable, as long as all required information is covered.

- A. Summary of Proposal.** Very briefly summarize background, rationale and outputs/results expected. (Reference proposal, if appropriate).
- B. Description of Activities.** For all moderate and high-risk activities listed in Section B of the ERF, succinctly describe location, siting, surroundings (include a map, even a sketch map). Provide both quantitative and qualitative information about actions needed during all project phases and who will undertake them. (All of this information can be provided in a table). If various alternatives have been considered and rejected because the proposed activity is considered more environmentally sound, explain these.
- C. Site-specific Environmental Situation & Host Country Requirements.** Describe the environmental characteristics of the site(s) where the proposed activities will take place. Focus on site characteristics of concern—e.g., water supplies, animal habitat, steep slopes, etc. With regard to these critical characteristics, is the environmental situation at the site degrading, improving, or stable?

NOTE: provide site-specific information in this section, NOT country-level information. General information about country level conditions is already included in the IEE governing the USAID IUWASH Tangguh Program.

D. Environmental Issues, Mitigation Actions, and Findings. For ALL proposed activities

- i. Briefly note the potential environmental impacts or concerns presented by the proposed activities (if any). *For guidance, refer to Africa Bureau’s Environmental Guidelines for Small-Scale Activities; available at www.encapafrica.org/egssaa.htm.*

As per the *Small-Scale Guidelines*, consider direct, indirect and cumulative impacts across the activity lifecycle (i.e. impacts of site selection, construction, and operation, as well as any problems that might arise with abandoning, restoring or reusing the site at the end of the anticipated life of the facility or activity). Note that “environment” includes air, water, geology, soils, vegetation, wildlife, aquatic resources, historic, archaeological or other cultural resources, people and their communities, land use, traffic, waste disposal, water supply, energy, etc.)

- ii. Assess the extent to which these *potential* impacts and concerns are significant in the context of the specific activity design and site.
- iii. Set out the mitigation actions to be employed to address these issues.

Mitigation actions are means taken to avoid, reduce or compensate for impacts. Mitigation measures must be reasonable and implementable by field staff. They should be consistent with the good practice guidance provided in Africa Bureau’s Environmental Guidelines for Small-Scale Activities; (www.encapafrica.org/egssaa.htm.) Cite this or other guidance used for mitigation design.

- iv. Reach one of three findings regarding the potential impacts:
 - a. **Significant adverse impacts are very unlikely.** Of its nature, the activity in question is very unlikely to result in significant, adverse environmental impacts. Special mitigation or monitoring is not required.
Note: this conclusion is rarely appropriate for high-risk activities.
 - b. With implementation of the specified mitigation and monitoring, significant adverse impacts are very unlikely.
 - c. **Significant adverse impacts are possible.** That is, it is not possible to rule out significant adverse environmental impacts even given reasonable, attainable mitigation and monitoring.

In this case, USAID and the partner will consult regarding next steps. If the activity is to go forward in its current form, additional analysis in the form of an IEE or EA will be required.

Format and structure of this section. Choose a format and structure that presents the necessary information clearly and succinctly.

Table formats can be used. In the example below, the proposed activity was construction of an institutional facility on a 7500m³ plot bisected by a seasonal stream providing drainage to the local area. One potential impact of the activity was reduction of or alteration to the drainage eco-service provided by the seasonal stream.

Issue or cause for concern	Analysis	Finding and conditions/mitigation actions
<p>The seasonal stream running through the plot drains an area of at least 2 km² to the WNW.</p> <p>Diminution or alteration to this drainage “service” could result in increased upstream pooling & flooding during the rainy season, with associated property damage and increased breeding habitat for disease vectors.</p>	<p>As indicated at left, this impact only arises if the drainage “service “ provided by the seasonal stream is diminished or altered in some adverse manner.</p> <p>So long as compound design maintains the existing service level and construction is managed without disruption to stream flow, actual adverse impact will be negligible or zero.</p>	<p>Per analysis at left, this potential impact is not significant, so long as the following mitigations are implemented:</p> <ol style="list-style-type: none"> 1. Total stream capacity cannot be diminished by the development of the compound. (Stream channel on average is 3m x 1m.) 2. The stream must remain substantially in the same channel and cannot, e.g., be re-routed around the property. 3. If construction will result in an interruption to stream flow, provision must be made to provide a temporary bypass. Temporary damming of stream flow is not permissible. 4. Post-construction, the stream bed within the property, including point-of-entry (e.g. via culvert under perimeter wall) must be maintained free of obstructions to flow.

E. Environmental Mitigation and Monitoring Plan (EMMP). Set out how compliance with mitigation actions will be monitored/verified. This includes specifying WHO will be responsible for the various mitigation actions, and HOW implementation of the mitigation actions will be tracked/verified.

Also specify how you will report to USAID on the implementation of mitigation actions. (You are REQUIRED to provide your C/AOTR with sufficient information on the status of mitigation implementation for USAID to effectively fulfill its oversight and performance monitoring role.)

Again, choose a format and structure that presents the necessary information clearly and succinctly. EMMPs are typically in table format, and often include a compliance log or “monitoring record” section that records implementation status of the various mitigation actions. The EMMP with current monitoring log can then simply be submitted to the C/AOTR with the quarterly or 6-month project report, satisfying the environmental compliance reporting requirement.

The most basic EMMP format is

Mitigation action	Responsible Party	Monitoring/Verification Method	Monitoring Record (date, result, corrective actions taken, if any)

For additional EMMP formats and examples, see the ENCAP EMMP factsheet, available via www.encapafrika.org/meoEntry.htm

F. F. Other Information. Where possible and as appropriate, include photos of the site and surroundings; maps; and list the names of any reference materials or individuals consulted. (Pictures and maps of the site can substantially reduce the written description required in parts B & C)

Step 6. Transcribe findings from the Environmental Review Report to the ERF

For each high-risk or unknown/moderate-risk activity, transcribe your finding from the environmental review report to the last column of Section B of the ERF.

Step 7. Sign certifications (Section C of former.)

Step 8. Submit form to USAID C/AOTR. Be sure to attach the Environmental Review Report, if any.

ANNEX 3. ENVIRONMENTAL MITIGATION AND MONITORING REPORT (EMMR)

EMMR PART 1 OF 4: ENVIRONMENTAL VERIFICATION FORM

USAID/Indonesia AWARD Name Indonesia Urban Resilient Water, Sanitation, and Hygiene - (USAID IUWASH Tangguh) Project	Date of Screening
Name of Prime Implementing Organization DAI Global LLC	Funding Period for this Award
Name of Sub-Awardee/Contractor (if this EMMR is for a Sub)	Funding Period for this Award
Current FY Resource Levels	Date of Previous EMMR for this Organization
Report Prepared By	Name: Date:

Key Elements of Program/Activities Implemented

(See Initial Environmental screening of USAID IUWASH Tangguh activities)

EMMR PART 2 OF 4: MITIGATION PLAN

Category of Activity from of DO3 IEE	Describe specific environmental threats of your organization's activities (based on analysis in DO3 IEE)	Description of Mitigation Measures for these activities as required in Section 4 of DO3 IEE	Who is responsible for monitoring	Monitoring Indicator	Monitoring Method	Frequency of Monitoring

EMMR PART 3 OF 4: REPORTING FORM

List each Mitigation Measure from column 3 in the EMMR Mitigation Plan (EMMR Part 2 of 3)	Status of Mitigation Measures	List any outstanding issues relating to required conditions	Remarks

EMMR PART 4 OF 4: REPORTING FORM

List each Mitigation Measure from column 3 in the EMMR Mitigation Plan (EMMR Part 2 of 3)	Status of Mitigation Measures	List any outstanding issues relating to required conditions	Remarks

ANNEX 4. ENVIRONMENTAL REVIEW FORM (ERF) FOR USAID IUWASH TANGGUH PROJECT SUB-CONTRACTS/SUB-GRANTS

Follow, but do not submit, the attached instructions.

A. Applicant information

Organization		Parent grant or project	
Individual contact and title		Address, phone & email (if available)	
Proposed subproject /subgrant (brief description)		Amount of funding requested	
		Period of performance	
		Location(s) of proposed activities	

B. Activities, screening results, and findings

Proposed activities (Provide DESCRIPTIVE listing. Continue on additional page if necessary)	Screening result (Step 3 of instructions)			Findings (Step 6 of instructions. Complete for all moderate/unknown and high-risk activities ONLY)		
	Very Low Risk	High-Risk*	Moderate or unknown risk*	significant adverse impacts are very unlikely	With specified mitigation, significant adverse impacts are very unlikely	Significant Adverse impacts are possible
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

*These screening results require completion of an Environmental Review Report

C. Certification:

I, the undersigned, certify that:

1. The information on this form and accompanying environmental review report (if any) is correct and complete.
2. Implementation of these activities will not go forward until specific approval is received from the COR.
3. All mitigation and monitoring measures specified in the Environmental Review Report will be implemented in their entirety, and that staff charged with this implementation will have the authority, capacity and knowledge for successful implementation.

(Signature) _____ (Date) _____
 (Print name) _____ (Title) _____

Note: if screening results for any activity are “high risk” or “moderate or unknown risk,” this form is not complete unless accompanied by an environmental review report.

BELOW THIS LINE FOR USAID USE ONLY

Notes:

1. For clearance to be granted, the activity MUST be within the scope of the activities for which use of the ERF is authorized in the governing IEE. **Review IEE before signature.** If activities are outside this scope, deny clearance and provide explanation in comments section. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.
2. Clearing an ERF containing one or more findings that **significant adverse impacts are possible** indicates agreement with the analysis and findings. It does NOT authorize activities for which “significant adverse impacts are possible” to go forward. It DOES authorize other activities to go forward. The Partner, C/AOTR, MEO and REA must then confer regarding next steps: activity re-design, an IEE or EA.

Clearance record

C/AOR <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
USAID/Indonesia MEO <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
Regional Env. Advisor (REA) <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)
Bureau Env. Officer (BEO)* <input type="checkbox"/> Clearance given <input type="checkbox"/> Clearance denied	(print name)	(signature)	(date)

C/AOR, MEO and REA clearance is required. BEO clearance is required for all “high risk” screening results and for findings of “significant adverse impacts possible. The BEO may review.

**Note: if clearance is denied, comments must be provided to applicant
(use space below & attach sheets if necessary)**


***Note to individuals adapting the * Supplemental Environmental Review Form for NRM
Activities for use on a particular program/activity:***

- This supplement is oriented around major resource/issue clusters and asks “leading questions” about the actual potential for unintended harmful impacts, especially of CBNRM/ ecotourism activities.
- **Underlined & blue** highlighted text **MUST** be modified to reflect project and mission name
- Questions should be modified to respond to the needs of individual projects. This is intended to be a “living” document subject to adaptation.

**USAID INDONESIA URBAN RESILIENT WATER, SANITATION,
AND HYGIENE (IUWASH TANGGUH)**

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