

## ANNEX I

# LRPS-2019-9153605 – Action Research to Improve Climate Change Resilience on Urban Sanitation

## TERMS OF REFERENCE

### 1. Title of the assignment:

Institutional consultancy for conducting “Action Research to Improve Climate Change Resilience on Urban Sanitation”.

### 2. Background and Justification:

**Indonesia target to SDGs and challenges.** Indonesia is committed to achieve Sustainable Development Goals as drafted in the upcoming National Medium-term Development Plan 2020-2024. The Government of Indonesia (GoI) planned to achieve 90% improved sanitation in 2024 include 20% safe access sanitation. This figure was set towards SDGs target indication which said that Indonesia by 2030 aim to achieve 100% improved sanitation with 53,7% safely managed sanitation. Thus, providing equitable, sustainable, WASH access and services is one of priority programs for the government of Indonesia for the next five years. The target is quite ambitious, considering the current situation and progress on WASH, in particularly towards safely managed water and sanitation. Based on the latest study by World Bank (2017), T60 households (60% of households with the highest income) are more likely to have higher access to WASH facilities in both urban and rural areas. However, the B40 (40% of households with the lowest income) in urban areas still have higher access to WASH facilities compared to the T60 households in rural areas. Therefore, inequalities of access and quality of services within wealth levels, location (urban vs rural, eastern and western Indonesia, etc.) remain challenged.

**Climate change is a major issue with Indonesia** being one of the world’s largest producers of greenhouse gases, one of the most vulnerable countries to climate change impacts. Many of these impacts are related to increasing water-related natural disasters and water borne disease outbreaks in the country. The disasters have profound impact on children and also WASH services in many ways: damaging or destroying infrastructure through droughts, floods, water contamination and water quality degradation, water stress, etc.

**Relevance of climate change to urban sanitation.** As achieving safely managed sanitation is still challenged by various factors, there are some potential negative impacts of climate change on urban sanitation, such as: increased demand due to more frequent flooding/rainfall, waterlogging that reduces septic tank’s function due to sea level rise, increase groundwater extraction that increases risk of contamination from unsealed pits, destruction of urban sanitation infrastructures which then impacting to providing sanitation service to urban poor and the disadvantages are even more problematic.

Despite close relevance of climate change to urban sanitation, **current response of WASH sector to climate change is not promising.** Some reflections are as follows: (1) many cities are still struggling with delivering basic services and more immediate challenges on providing safely managed and leaving no one behind as mandated in the new RPJMN 2020-2024 and SDGs; (2) climate change is regarded as ‘somebody else’s problem’. Thus, climate change is little (or not) mentioned in sanitation policies, regulations, planning and approaches; (3) not sure what to do. As ‘new’ area, the governments are not sure with what they can do on or how to contribute to climate adaptation without compromising other activities. Many available reports from studies, references and guidance are more on

water rather than on sanitation; and (4) limited government's budget allocation for providing sanitation access and services reduces government's capacity to response to negative impacts of climate change to sanitation.

### 3. Purpose of the assignment:

The firm will support UNICEF and Government of Indonesia to develop and document evidence to: (1) advance understanding on climate impacts to sanitation sector; (2) recommend climate-smart practical options to strengthen the reliability of WASH services, which included various aspects (such as planning and programming, institutional arrangements, financing, infrastructure development, management of service provision, demand creation, etc.) to reduce negative impacts of climate changes, including to local water source pollution due to fecal waste; (3) strengthen capacities of governments and communities to increase climate resilience by addressing the risks posed by climate change in urban sanitation and integrating climate resilience into national or sub-national policy and planning on sanitation; and (4) provide recommendation to UNICEF Indonesia Country Office on how to support the Government of Indonesia to increase climate resilience on sanitation.

### 4. Scope of Work:

The scope of the study will focus on urban and semi-urban cities in the selected areas that prone to disaster and climate change impact in Indonesia, in particular related with storm, flood, water scarcity (drought), and sea water rise and intrusion. This study will primarily look at household levels and public sanitation facilities with an insight of further consideration to include institutions like public facilities, schools, and health care facilities in the next potential study.

It is expected that the five-months study will include an inception phase, followed by data collection and analysis phase. Field observation and primary data collections will be applied along with review of secondary data and existing sources of trusted-information, including existing policies/strategies for sanitation to assess how it has (or has not) been addressed. Existing climate information, data and analysis should also be included, such as climate vulnerability assessments, meteorological data and climate change prediction.

It's expected that the work takes for 6 (six) months and includes an inception phase followed by data collection and analysis phase. Data collections refers to field observation and primary data collections in the selected areas, in addition to the compilation and review of secondary data and existing sources. The scope of works will follow key moments as presented in the table below and it will lead to the deliverables specified therein.

The proposed tasks are as follows:

Tasks	Deliverables	Timeframe
Inception phase (development of study design, tools and methods)	Inception Report and methodology of the study, including list of questions and pointers for field observations	10 Dec 2019
Identification of risks, hazards and impacts of climate change and their implication on sanitation sector and water quality; and identification of urban sanitation contribution to climate change	Draft Assessment Report (synthesis) and city case study reports	27 Feb 2020

Desk review of existing documents on the broader enabling environment for urban sanitation and climate change issues including policies, strategies, programs on climate change adaptation and sanitation sectors		
Assessment on technical, social and institutional aspects of stakeholders working in urban sanitation and climate change resilience issues		
Field visits to selected cities (4 cities, including Palu)		
Stakeholders mapping and identification of possible areas of collaboration and coordination	Draft Final report (in English), UNICEF branded knowledge products (in English and Bahasa) (e.g. field note, policy brief) and power point material (in English and Bahasa)	9 April 2019
Recommendations on planning and programming, institutional arrangements, financing, infrastructure and service provision, social and public health impacts of climate change		
Workshop with different stakeholders to validate the field findings and to assess feasibility of potential reform options for addressing climate change impact on sanitation in the urban context.		
Development of final report	Final Report (in English); UNICEF branded knowledge products (in English and Bahasa) and power point material (in English and Bahasa)	11 May 2020

##### 5. Methodology:

The study will be a formative research and will capture current status of urban sanitation access and services in particular to safely managed sanitation and possible impact of climate change, which will be conducted in two (2) stages, as follows:

###### Stage 1: Desk/Literature Review – analysis of existing documents.

Existing reports or documents from relevant studies and programs will inform the data and information gaps and methods to filling those gaps, especially on climate risk analysis for WASH. The review would also include but not limited to plan and studies (not only specific to climate change at WASH sector level, but also more broadly at national and local levels), as well as good practices have been applied in other countries for sanitation climate resilience.

###### Stage 2: Primary data collection

###### a. Proposed key questions:

- What is the current water and sanitation situation of the area?
- What are the impacts of climate variability to urban sanitation access and services, especially on physical and social systems? What are the impacts of climate variability to water access and services?
- Who have higher risks of climate variability

- Which stakeholders are working in urban sanitation?
- What engagement strategies will be useful to develop a multi-stakeholder partnership process in strengthening climate change resilience to urban sanitation?
- What would be responses on planning and programming, institutional arrangements, financing, infrastructure and service provision, social and public health planning, governance and financing to strengthen reliability of sanitation services.

Types of data to be collected	Methodologies
Existing policies/regulations, financing mechanisms, monitoring systems, sanitation technology options, available data/studies related to climate impacts and WASH in Indonesia, examples/actions from other countries to improve climate resilience/vulnerability for sanitation	Desk review
Translation of existing policies/regulations/financing etc into actions, institutional arrangement and coordination mechanisms (i.e. roles and responsibilities of key line ministries/local agencies), potential financing mechanisms for climate-resilient sanitation services, current levels of knowledge and awareness about climate variability, increased public health risks with special attention to vulnerable groups and its implications for sanitation,	FGDs and KIIs with national and local government stakeholders
Current levels of knowledge and awareness, access to climate data to inform adaptations, operational capacity (gaps) and service chain vulnerabilities,	FGDs and KIIs with local sanitation service providers
WASH facility and service vulnerability to climate change hazards	Observation of HHs and public /private sanitation facilities
Community coping strategies for sanitation against climate variability, experiences of extreme weather events and adverse impacts of poor sanitation, special needs of vulnerable groups (the poor, women/girls and children)	FGDs with key community stakeholders
Current levels of knowledge and awareness, access to information on potential climate hazard, likely impacts and options, willingness-to-pay for increased costs of climate-resilient sanitation services, relative vulnerability and special needs of poor households (B40) with attention to children and women/girls,	Household survey

b. Data collections, which will be divided into:

- Households observations to have an informal interaction and questioned to assess the current WASH access and services, as well as impacts of climate change to urban water and sanitation;
- Households sample surveys<sup>1</sup> in selected areas to measure access, knowledge, beliefs, and practices, including the ability to better understand the relationships between the variables studied – importantly vulnerable groups need to be captured;
- Field observations on households' water and sanitation facilities if the surveys conducted while flood or drought season;

<sup>1</sup> Include vulnerable groups such as the poor and those living in areas more susceptible to climate change hazards.

- Relative vulnerability of B40 households and their ability to cope with impact of climate change;
  - Focus Group Discussions (FGDs) and Key Informant Interviews (KIIs) in the selected cities and areas. Suggestions are welcomed on ways to conduct participatory research, to ensure all voices from governments, partners and communities, especially the most marginalized segments are captured. Engagement with stakeholders are needed to have better understanding about roles, responsibilities, risks, uncertainties and stakeholder needs. Discussion with local stakeholders are mainly intended to assess their knowledge and experience as well as to identify flexibility and responsiveness of sanitation service management to address uncertainty due to climate change;
  - Field observation to assess public sanitation facilities, including DEWATS systems, pipe networks, treatment plants (both IPAL and IPLT) to define how climate change could risk and impact their performances.
- c. Target audiences for the research should involve key audiences:
- Households and communities.
  - Central governments: National Development Planning Ministry (Bappenas), Ministry of Public Works and Housing, Ministry of Health, Ministry of Environmental and Forestry, BMKG (Meteorology, Climatology and Geophysics Agency);
  - Local governments: Bappeda, Local Public Works Office (and relevant offices related to sanitation), Local Health Office, Local Environmental Office, and local sanitation service providers, such as PDAM, PDPAL, UPTD or Dinas.

Further methodological guidance including sample size will be discussed and finalized at the inception phase.

For Ethics approval, please refer to the documents that can be downloaded, listed below:

Ethical guidelines for evaluations: <http://www.unevaluation.org/document/download/548>  
 Evaluators' code of conduct: [http://www.unicef.org/evaluation/files/Evaluation\\_Principles\\_UNEG\\_Code\\_of\\_Conduct.pdf](http://www.unicef.org/evaluation/files/Evaluation_Principles_UNEG_Code_of_Conduct.pdf)  
 Procedure for Ethical Standards: <https://unicef.sharepoint.com/teams/OoR/SiteAssets/SitePages/Procedures/UNICEF%20PROCEDURE%20ON%20ETHICS%20IN%20EVIDENCE%20GENERATION.PDF>

**6. Timing/duration of contract:**

The contract assignment will be conducted in 6 (six) months.

**7. Deliverable and payment schedule**

Payment will be made based on satisfactory completion against approved deliverables. All travel expenditure/arrangements should be covered in the total cost of consultancy. The payment schedule shall follow the below matrix:

Task	Deliverable	Deadline	Percentage Payment
Inception	Inception Report and methodology of the study, including list of questions and pointers for field observations	10 Dec 2019	10%
Field Assessment	Draft Assessment Report (synthesis) and city case study reports	27 Feb 2020	30%

Conduct analysis and identify recommendations	Draft Final report (in English) Cleaned Raw data files (in agreed format)	9 April 2020	30%
Prepare final report	Final Report (in English); UNICEF branded knowledge products (in English and Bahasa) and power point material (in English and Bahasa)	11 May 2020	30%

#### 8. Qualifications Required:

The required background, experience and competencies for the consulting institution is as follows.

- The institution/agency must be a legal entity;
- The institution/agency must be able to provide good demonstrated portfolio in related tasks;
- The institution is expected to propose the team structure and constituent members with expertise in conducting research on water quality monitoring, climate change with focus on sanitation and fecal sludge management. It will be recommended that the institution work closely with national companies in Indonesia to ensure mutual understanding and appropriation

Core team members must have a minimum of the following qualifications:

- Climate change expert and research analyst: master's degree in a relevant discipline with a minimum of 6 years' relevant experience on research to identify impact on climate change to urban sanitation; Must be fluent in written and spoken English.
- Urban WASH expert: master's degree with minimum 6 years' experience in urban sanitation, preferable in Indonesia. Must be fluent in written and spoken English.
- Public policy and governance expert: master's degree with minimum 6 years' experience in governance aspect for WASH sector, preferable in Indonesia. Must be fluent in written and spoken English.

#### 9. Evaluation Criteria:

- Each proposal will be assessed first on its technical merits (including by reference to legal requirements) and subsequently on its price. The proposal obtaining the overall highest score after adding the scores for the technical and financial proposals is the proposal that offers best value for money and will be recommended for the contract.

The proposals will be evaluated against the following elements:

- **Technical Proposal:** The Total amount of points allocated to the written technical proposal is 50. Only bidders that obtain 35 points and above from the written technical proposal will be considered for the stage of technical presentation.
- **Technical Presentation:** The total amount of points for technical presentation is 20. Only bidders that obtain 14 points and above from the technical presentation will be considered for the stage of financial evaluation.

Proposals must include complete and accurate information. The proposal must include, but is not limited to, the following items

CATEGORY	MAX POINT	MIN PASSING POINT
<b>0. MANDATORY CRITERIA</b> <ul style="list-style-type: none"> <li>Legal statement document for operation permit in Indonesia</li> </ul>	Fail/pass	
<b>1. ORGANIZATIONAL CAPACITY</b> <p>1.1 Institution/company profile indicating major work, with justification on why the institution is well-suited to the assignment.</p> <p>1.2 Detail of relevant experience and list of clients in the last five years, including contact details (name, email address, and phone numbers that can be used as reference)</p> <p>1.3 Financial Statement and Balance Sheet (audited preferably) for the last 3 years.</p> <p>1.4 For international institution/organization has consortium with local institution/organization</p>	15	
<b>2. QUALITY OF THE TECHNICAL PROPOSAL</b> <p>2.1 Proposed methodology and approach with reference to objectives in TOR, including detail sampling method;</p> <p>2.2 Proposed work plan and approach of implementation of the tasks as per the ToR including approximate durations, on-site and off-site meetings/ key milestone and key deliverables</p> <p>2.3 Implementation timeline: identify key tasks and timeline, focal person for each activity/deliverable should be identified.</p> <p>2.4 Anticipated project risks and mitigation measures as well as quality assurance</p>	25	
<b>3. KEY PERSONNEL</b> <p>3.1 Names and full CVs of the institution personnel that will be directly involved in the consultancy, including (but not limited to) the designated Team Leader/ Project Manager. The list should include at least one senior staff with good experience on work related with adaptation of urban water and sanitation services to climate change</p> <p>3.2 Adequate and appropriate staff combination in relation to the respective tasks and deliverables (see TOR); and relevant prior experiences of similar scope and complexity.</p>	10	
<b>TOTAL TECHNICAL PROPOSAL</b> *The bidder has to meet this minimum passing point for the Technical Evaluation in order to be considered further for the Technical Presentation	50	*35
<b>PRESENTATION</b> **The bidder has to meet this minimum passing point for the Technical Evaluation in order to be considered further for the Financial Evaluation	20	**14
<b>PRICE/FINANCIAL PROPOSAL</b> Financial proposals should be all-inclusive, including costs for fees, travel, sub-contracts and other necessary expenses.	30	
<b>TOTAL MARKS</b>	100	