Indonesia has made huge strides in providing access to drinking water over the past few decades. Today, nine out of ten Indonesians have access to some form of improved water supply and eight out of ten have access to a basic sanitation facility, as illustrated by Figure 1. Despite these improvements, only 19 percent of Indonesians have access to piped water and 70 percent of households still consume water contaminated with fecal coliforms. The GOI has set a goal of achieving universal access to water and sanitation services, including 45 percent with safely managed drinking water and 30 percent with safely managed sanitation, by 2030. Achieving this target will be difficult, given the varying levels of water availability, limited sanitation services, and poor hygiene practices.

The sanitation sector faces even greater challenges. National goals related to basic sanitation were not achieved in 2019, with only 2 percent of the population having access to sewage systems and 89 percent relying on on-site sanitation. Nationwide, only 7.4 percent of households still consume water contaminated with fecal coliforms. The GOI has set a goal of achieving universal access to water and sanitation services, including 45 percent with safely managed drinking water and 30 percent with safely managed sanitation, by 2030. Achieving this target will be difficult, given the varying levels of water availability, limited sanitation services, and poor hygiene practices.

Indonesia is a vast archipelago with 8,000 watersheds and over 5,700 rivers grouped into 128 main river basins and 421 groundwater basins, and water challenges vary substantially across regions. Freshwater is abundant on Sumatra, Kalimantan, Sulawesi, and Papua, where population density is low, but is less available on more densely populated islands like Java, Bali, and East Nusa Tenggara. Water stress is highest
on Java, which contains more than half of Indonesia’s population but only four percent of the total surface water supply. Meanwhile, water demand continues to rise and is expected to increase by 31 percent between 2015 and 2045. If this trend continues, it is projected that 31 out of the 128 river basins in Java will face a water supply–demand deficit by 2045.

The GOI has a strong policy framework and well-defined roles and responsibilities for the WASH and WRM subsectors, as detailed below. However, some key challenges will need to be addressed for Indonesia to achieve Sustainable Development Goal 6 by 2030.5

**Population growth and urbanization:** The proportion of Indonesia’s population living in urban areas grew from 42 percent in 2000 to 57 percent in 2021. By 2050, nearly 75 percent of the country’s population is expected to reside in cities. Increasing demand for water and sanitation services from both consumers and firms in Indonesia’s thriving manufacturing sector has placed significant stress on water utilities. Recently, the most rapid urban population growth has occurred in secondary cities, where local governments and water utilities tend to be under-resourced compared to Jakarta.

**Deteriorating water quality:** While Indonesia’s total water supply availability is sufficient for its population, the country faces several stressors that threaten its long-term ability to provide sustainable essential water and sanitation services. The growth of palm oil plantations, which account for 1 percent of forest cover loss annually, and the growing frequency of severe weather events like flooding are deteriorating the water quality and disrupting service provision.6 More than half of Indonesia’s riverine areas are heavily populated, and the country’s two major river bodies are among the most polluted in the world. Where water quality is monitored, nearly 93 percent of groundwater exceeds acceptable pollutant levels, and an estimated 75 percent of the pollution is in areas where water quality is unmonitored.

**Climate change:** Indonesia is highly vulnerable to the impacts of climate change, which is projected to increase the frequency and magnitude of disasters like flooding, the duration of seasonal water shortages, and alter the availability of water reserves. Increased frequency and severity of droughts will lead to severe dry season water shortages in water-stressed areas. While climate change presents enormous challenges for Indonesia in meeting its national development objectives, there is potential for USAID and its partners to contribute positively to long-term water security. USAID’s WASH programming will meet these challenges head-on, working to advance climate resilience in the WASH sector in line with the USAID Climate Strategy. For instance, effective WRM can protect important watersheds in high-value carbon forest areas and secure the raw water supply for drinking water.

**Financing gap in the water and sanitation sector:** Despite its ambitious targets, integrated plans, and a whole-of-government approach, Indonesia does not have sufficient financial resources to meet the WASH challenges it faces. The GOI’s 2020–2024 National Medium Term Development Plan estimates that an additional $18.4 billion is required to meet the intermediate water and sanitation goals7 of 100 percent of households having access to improved drinking water and 90 percent of households having access to improved sanitation. Current national and local budget allocations will meet only 62 percent of the need ($11.3 billion). While the private sector may play a role in closing the financing gap, local governments have the primary responsibility for delivering water and sanitation services, so strengthening their capacity to mobilize financial resources is essential.

USAID will help close this resource gap by encouraging private resource mobilization and building the capacity of municipal governments and water utilities to effectively manage water and sanitation service delivery, including setting and enforcing higher tariffs that enable water utilities to fully recover their costs. These efforts will help target municipalities become more efficient, improve their performance, and rely less on unpredictable government subsidies.

**NATIONAL PRIORITIES**

Indonesia has made ambitious commitments to expand access to safely managed drinking water and sanitation in its 2020–2024 National Medium Term Development Plan. This plan sets a target of 100 percent of the population having access to adequate drinking water, including 15 percent with safely managed access, and 30 percent with access to piped water (10 million homes). To remain on track toward achieving these objectives, Indonesia established a water availability goal of at least 1,000 m³/capita/year.8 For sanitation, the GOI aims for 90 percent access to adequate sanitation, including 15 percent with safely managed access.

Water security, sanitation, and hygiene is a “whole of government” effort in Indonesia and there are a range of institutions working together to achieve these priorities, commitments, and goals. At the national level, 18 different
ministries belonging to the National Water Resources Council share responsibilities for creating standards, regulations, programs, or budgets related to water and sanitation. USAID works closely with Bappenas, the Ministry of National Development Planning, given its coordination role for the execution of water and sanitation service delivery, WRM, and water conservation. At the city and district levels, USAID partners with different stand-alone agencies and units to deliver catered support to relevant institutions, such as the local public works or spatial planning agency, as well as water utilities. In Indonesia, the local water utilities, or PDAMs (Perusahaan Daerah Air Minum), are mainly responsible for providing drinking water, but many suffer from system inefficiencies, service interruptions, low utilization of water treatment infrastructure, and non-revenue water rates as high as 33 percent (i.e., water lost through leakage, theft, etc.).

Because decentralization diffused decision-making responsibilities across different levels of government, as evidenced by the provincial government’s authority in dispersing central funding for water resources, interventions in the water sector involve frequent communication with various government stakeholders, both vertically and horizontally.

USAID APPROACH AND RESULTS FRAMEWORK

Rapid urban population growth in secondary cities has placed tremendous pressure on municipal systems for delivering water and sanitation services. Most of these cities lack adequate budgets to improve the water and sanitation sectors. Accordingly, USAID programming in Indonesia focuses on these secondary cities. Through targeting foreign assistance in urban areas, USAID ensures that limited funding can be deployed effectively to maximize results. This approach is strategic from a long-term perspective, given that nearly 75 percent of the population is expected to live in urban areas by 2050—mainly in coastal cities where climate change can compromise the government’s ability to deliver effective WASH services.

USAID/Indonesia investments in WASH include two new programs: the flagship five-year, $40M Indonesia Urban Resilient Water, Sanitation, and Hygiene (IUWASH Tangguh) activity launched in April 2022 focusing on public utilities, and the forthcoming IUWASH Pasar program which will engage the private sector to expand and improve sanitation and hygiene in communities underserved by utilities. These two activities address Strategic Objectives 1, 2, and 3 of the Global Water Strategy, as detailed below.

STRATEGIC OBJECTIVE 1
Strengthen Water and Sanitation Sector Governance, Financing, Institutions, and Markets

USAID/Indonesia will improve sector governance and financing by working with national and local institutions to develop, strengthen, and implement inclusive laws, policies, and regulations in the WASH and WRM sectors. Because municipal governments are responsible for WASH service delivery, USAID/Indonesia will directly engage with key departments within each municipal government to advocate for increased WASH services for the poor (specifically the bottom 40 percent of the population in terms of household income). Coordination between departments and agencies will not be limited to funding flows; it will also enhance information exchange whereby national agencies promote overarching goals and strategies for change (top-down) while local governments provide feedback on successes and constraints (bottom-up) in mobilizing public and private financing. To improve the creditworthiness of water and sanitation utilities and engage the private sector to increase investments for WASH and WRM improvements, USAID/Indonesia will build market confidence by strengthening the capacity and performance of national and municipal governments. In strengthening governance, institutions, and markets, USAID/Indonesia will also work with civil society to advance transparency, accountability, equity, and efficiency in government and service providers through participatory, data-driven decision-making.

USAID/Indonesia will also strengthen the market for WASH products and services in the private sector. This will increase the sustainability of WASH products and services by encouraging local investment and leveraging consumer purchasing power to help close the WASH sector financing gap. USAID/Indonesia will achieve this through a multifaceted approach under the new IUWASH Pasar activity, which will improve the business environment in the WASH sector; enhance the viability of WASH enterprises; and increase the availability of affordable, desirable WASH products and services to underserved market segments (particularly residents of informal settlements).
STRATEGIC OBJECTIVE 2
Increase Equitable Access to Safe, Sustainable, and Climate-Resilient Drinking Water and Sanitation Services and Adoption of Key Behaviors

USAID/Indonesia will work with national and local government institutions, WASH service providers, and communities to increase access to equitable and affordable safely managed drinking water and sanitation services. This will require training and technical assistance to share best practices and standard operating procedures to improve the operational efficiency of WASH service providers. These improvements will be measured and benchmarked through continued development or improvement of existing institutional performance indices. The indices cover several dimensions of WASH and WRM performance, including institutional, operational, financial, and administrative performance as well as accountability and gender-responsive planning, budgeting, and implementation.

To help water utilities finance the expansion of their customer base, USAID/Indonesia will increase service providers’ readiness to access performance-based grants from the national government and create project pipelines to pursue commercial financing opportunities. USAID/Indonesia will also improve national policies on water safety planning, with a focus on defining clear roles and responsibilities among the national ministries responsible for the implementation and monitoring of water safety plans. USAID/Indonesia will work with these ministries to assess and manage climate-related risks to water and sanitation service operations and help them mobilize resources for climate-resilient infrastructure improvements. To generate long-term demand for WASH services, USAID/Indonesia will develop new social and behavior change interventions and shift gender norms to increase adoption of key hygiene practices. This will include promoting institutional change to enhance effective leadership, increasing coordination among municipal governments, and improving the planning, design, and implementation of climate-resilient water and sanitation services. USAID/Indonesia will also work closely with women to enhance their leadership as champions of behavior change in WASH and WRM programs.

STRATEGIC OBJECTIVE 3
Improve Climate-Resilient Conservation and Management of Freshwater Resources and Associated Ecosystems

USAID/Indonesia will work closely with stakeholders involved in managing watershed resources, including local governments, water utilities, watershed management authorities, and community-managed water organizations, to enhance the reliability and quality of water resources through climate vulnerability assessments and follow-on action plans. USAID/Indonesia will also improve water security by protecting watershed catchment areas and promoting private sector investments in green infrastructure related to WASH service delivery. IUWASH Tangguh will address watershed management through nature-based solutions and improve long-term processes for modeling the supply and demand for watershed resources to improve water quantity, quality, and reliability within drinking water systems. Across all interventions, USAID/Indonesia will advocate for more equitable and efficient water resource allocation by integrating gender equality and social inclusion (GESI) into WRM policies and budgeting.

PRINCIPLES

The USAID/Indonesia Mission (“the Mission”) will also integrate the Operating Principles listed under the Global Water Strategy. The Mission will employ an inclusive and integrated systems approach that connects upstream and downstream actors through partnerships, data, finance, and incentives to improve the enabling environment for WASH and WRM. In 2022, USAID/Indonesia launched an impact evaluation that will assess IUWASH Tangguh’s causal effects on the higher order impacts of increasing access to safely managed drinking water services related to household water security and resilient citywide water services. The evaluation will generate recommendations for improving the activity’s effectiveness, identify lessons learned for future programming, and assess the feasibility of scaling up the activity to include additional geographic regions and populations. Resilience is also incorporated into Mission WASH activities, particularly in the context of investing in climate-resilient water and sanitation infrastructure and service delivery, which allow target communities to better adapt to shocks that impact the WASH sector. Finally,
a focus on meeting the needs of marginalized and underserved people and communities and those in vulnerable situations is integrated throughout USAID/Indonesia’s WASH programming. Specifically, USAID/Indonesia will use monitoring systems that disaggregate data for gender and wealth quintiles, assess service provider performance using criteria related to equity, and engage service providers to meet the needs of marginalized groups.

MISSION RESULTS FRAMEWORK

USAID/Indonesia’s investment in the WASH sector aligns with all Development Objective (DOs) within the Mission’s Country Development and Cooperation Strategy 2020–2025:

DO 1 - Effective, Democratic Governance Strengthened: Existing and planned WASH activities contribute to the Mission’s IR 1.1 of strengthening subnational WASH planning, financing, and execution and IR 1.2 of improving channels for meaningful civic engagement for improved WASH services.

DO 2 - Inclusive Economic Growth Increased: By engaging with the private sector to achieve WASH development outcomes, activities in the WASH sector align with IR 2.2.2. of leveraging private sector partners to achieve development objectives.

DO 3 - Environmental Sustainability Improved: WASH activities support the Mission’s Intermediate Result (IR) 3.2, “Urban Environmental Management Strengthened,” through direct engagement with the GOI, civil society organizations, and the private sector to increase enabling conditions for improved water and sanitation outcomes, adoption of key hygiene behaviors, and increased urban resilience to climate shocks and stressors.

DO 4 - Priority Health Outcomes Improved: By improving behavior change and increasing access to safely-managed water and sanitation, WASH activities support the Mission’s IR 4.2 of improving maternal and newborn health.

KEY RISKS AND MITIGATION STRATEGIES

Climate: For Indonesia to increase access to safely managed drinking water and sanitation services and improve WRM, it also needs to address vulnerabilities to climate change that pose significant risks to water and sanitation infrastructure. The country is experiencing higher temperatures and lower rainfall in the dry season while extreme rainfall events are projected to increase in many areas during the rainy season. With 54,716 kilometers of coastline, Indonesia is also particularly vulnerable to sea level rise, which exacerbates flooding risks and increases the likelihood of groundwater pollution through the intrusion of saltwater in coastal areas. USAID/Indonesia will prioritize climate resilience in supporting any new water and sanitation infrastructure and explore ways to make existing infrastructure more resilient to climate impacts.

COVID-19: The sudden and rapid emergence of COVID-19 has negatively impacted efforts to expand water and sanitation services. The pandemic led the GOI to shift resources and political attention away from WASH priorities to support emergency public health efforts. COVID-19 has further exacerbated the financial challenges faced by many households, because many people were unable to work for long periods of time due to pandemic restrictions. The overall economic downturn related to COVID-19 means that key WASH institutions lack sufficient revenue and face difficulty securing financing from the private sector. While recovery is underway, mobilizing demand for WASH products and services and improving the business viability of the WASH sector are low priorities for the government. However, the response to COVID-19 resulted in greater public attention to public health messaging, as well as increased adoption of positive hygiene practices such as handwashing with soap. USAID/Indonesia will continue to advocate for consistent WASH funding from the public and private sectors, and assist WASH entrepreneurs in adapting to the uneven economic recovery post-pandemic.
EXPECTED RESULTS

From 2022 to 2027, USAID activities are projected to provide Indonesia with:

- **Safely managed drinking water services for 1.6 million people**
- **Safely managed sanitation access for 1.1 million people**
- **100 institutions strengthened** to manage water resources and/or improve water supply and sanitation services.
- **$300 million mobilized** in domestic, regional, and international financing to support water and sanitation sector development.

The activities will facilitate **50 public-private** partnerships and work with **300 local enterprises** to deliver WASH services to low-income households.

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**Endnotes**

2. Use of improved facilities which are not shared with other households.
4. Indonesia Vision 2045.
6. Indonesia Vision 2045.
7. Presentation provided by the Ministry of National Development Planning (Bappenas), January 11, 2022.