

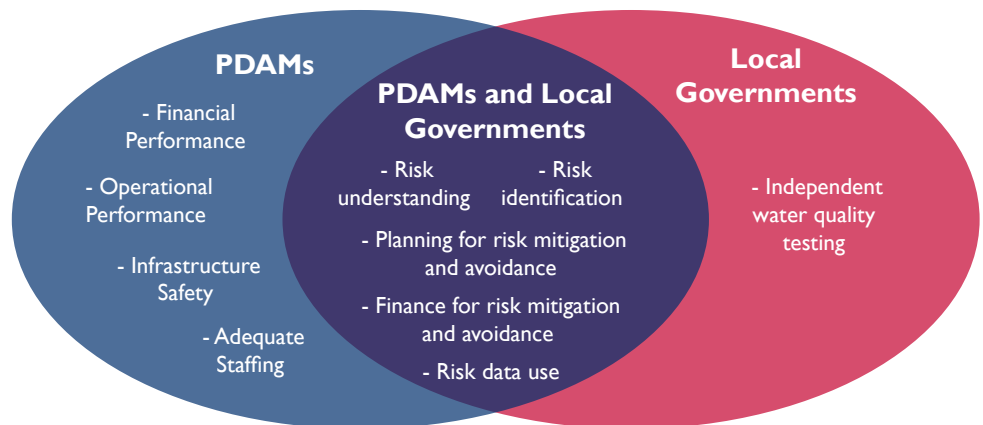


## Independent Study of the USAID IUWASH Tangguh Activity – Baseline Findings

### Question: How has city-wide water service resilience changed as a result of the interventions?

For target PDAMs and LGs, URBAN WASH interviewed relevant personnel, reviewed available secondary data, and used a structured scoring protocol administered by expert reviewers to assess key aspects of water service resilience in:

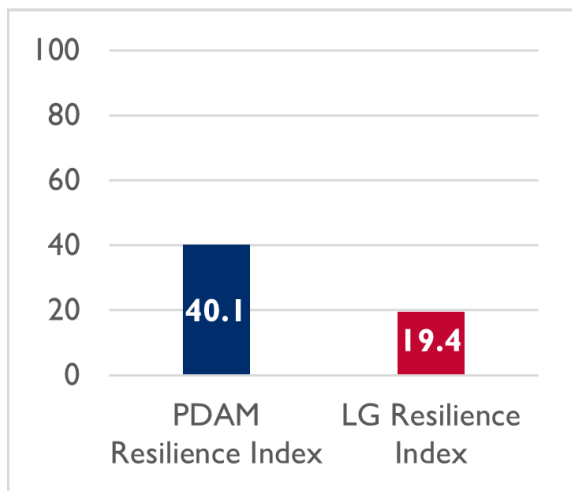
- PDAM Business plans
- PDAM Water Safety Plans (RPAMs)
- Local government Water Supply System Master Plans (RISPAMs)



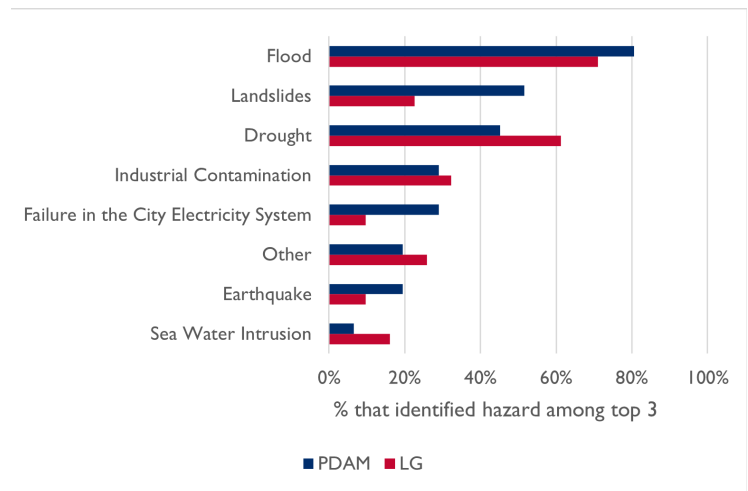
**Metrics for measuring PDAM and local government resilience**

Neither PDAMs nor local governments have strongly institutionalized, evidence-based practices of risk identification, understanding, and mitigation, though they are anecdotally aware of hazards which pose risks to their water services. Nearly all cities/districts have PDAM business plans and local government RISPAMs, but the standard format for these does not include information or planning surrounding hazards to water services. While promising practices to promote resilience are emerging in PDAM RPAMs, these were present in only 39% of IUWASH Tangguh’s partner kabupaten and kota.

PDAM personnel report even the most common hazards have historically affected their services only 3-15 times over the past five years, and that hazards would likely disrupt services for less than a day.



**Average Overall Resilience Index Score for PDAMs and LGs in IUWASH Tangguh Partner Cities and Districts**



**Hazards Identified among Top 3 Most Likely to Affect Water Services, by Institution**

## PDAM Resilience Findings

### RPAMs promote resilience, but still could use stronger data sources and better-defined risk mitigation actions

- 87% of PDAMs have active business plans. These include detailed demand and capacity projections and planned investments, but they do not identify and analyze hazards to water services.
- 39% of PDAMs have active RPAMs. These usually include analysis of hazards to water services that cover potential effects on source, treatment, transmission, and distribution, but do not use localized climate change projections.
- RPAMs normally use updated scenario analyses to understand risks posed by hazards, but they very rarely have well-defined mitigation actions mapped to this analysis.

### PDAM personnel are confident in their PDAMs' capacity to avoid disruptions to water services, but most PDAMs do not have dedicated funds for risk mitigation and response

- 81% report having staff with adequate skills to reduce the incidence and duration of disruptions to water services from the most likely hazards they will face
- 71% use real-time data to monitor bulk water quantity and quality
- 58% report that abstraction, transmission, treatment, and distribution infrastructure was built to reduce disruptions from most likely hazards
- 36% provide more than 16 hours/day of piped water service, and most have idle capacity
- 87% are financially healthy
- 13% of PDAMs have funds allocated in their budgets for risk mitigation and avoidance and disaster response and recovery which are protected exclusively for this purpose.

## Local Government Resilience Findings

### RISPAMs support investment planning, but do not include risk analysis considerations

- 82% of RISPAMs include detailed demand and capacity projections and planned investments
- 54% of RISPAMs identified hazards to water services, but all based this on low quality evidence. None used scenarios to understand risks posed by hazards or included detailed risk mitigation action planning

### LGs play an important role in independent water quality monitoring

- 90% of LGs independently test at least one water quality parameter for domestic PDAM customers
- Only 36% test all required types of water quality parameters (physical, chemical, microbiological) for all types of water users (PDAM, private, community based, etc.) at the point of use

### Most LGs have budgets for risk mitigation and disaster response, and they are often protected

- 71% of cities/districts have a budget for risk mitigation or avoidance
- 84% of cities/districts have a budget for disaster response and recovery
- 26% of cities and districts had protected budgets for both risk mitigation and avoidance and disaster response and recovery