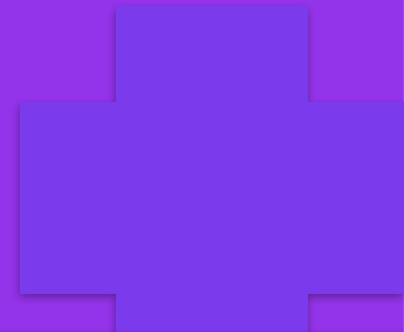




Water as a Weapon: Humanitarian Deprivation and WASH System Collapse in Gaza (2023–2025)

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01

Presentation Outline

Comprehensive analysis of WASH system collapse in Gaza

Research Agenda

- ◆ Introduction and background on WASH system collapse
- ◆ Methodology for analyzing humanitarian crisis data
- ◆ Quantitative results of water deprivation
- ◆ Discussion of findings and legal implications
- ◆ Conclusions and recommendations

Research Context & Background

- ◆ Gaza Strip experienced severe humanitarian collapse since October 2023
- ◆ **WASH infrastructure systematically incapacitated:** wells, desalination plants, sewage networks
- ◆ Cascading health crises affecting approximately 2.2 million people
- ◆ Historical occupation, social trauma, and institutional constraints intersect
- ◆ Infrastructure as instrument of biopolitical control (Weizman, 2017)

Motivation & Research Gap

Why This Research Matters

- ◆ Systematic collapse of WASH systems creates conditions incompatible with survival
- ◆ Water deprivation functions as both material control and epistemic suppression
- ◆ Critical gap in understanding operational patterns within structural violence frameworks

Research Questions Addressed

- ◆ How does infrastructure targeting create humanitarian crises?
- ◆ What are the operational patterns evidencing systemic deprivation?
- ◆ How do legal framings mediate perceptions of intentionality?
- ◆ How is credibility constructed in humanitarian WASH communication?

Key Contributions

1

Documentation

Documents catastrophic degradation of WASH systems in Gaza 2023-2025

2

Dual Analysis

Analyzes water deprivation as both material control and epistemic suppression

3

Legal Evidence

Provides empirical evidence aligning with genocide-risk indicators under international law

4

Methodological Innovation

Contributes to methodological innovation in mixed-methods conflict analysis

Related Work & Theoretical Frameworks

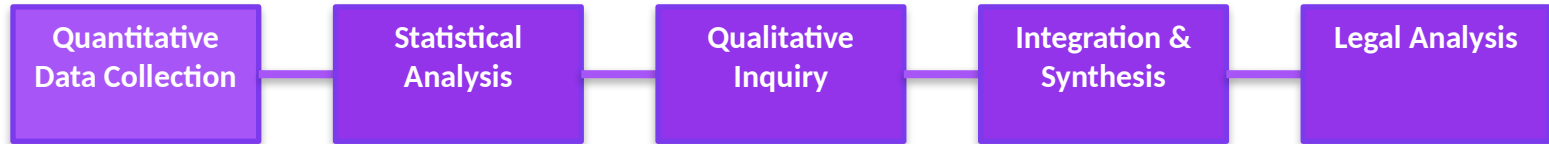
- ◆ **Structural violence theory:** infrastructure as instrument of control
- ◆ International humanitarian law frameworks for atrocity crimes
- ◆ **Epistemic injustice (Fricker, 2007):** systematic discrediting of testimonies
- ◆ Biopolitical control through infrastructure (Weizman, 2017)
- ◆ **Limitations:** Existing methods often separate quantitative from qualitative analysis

02

Research Methodology

Mixed-methods explanatory sequential design

Research Design



Methodology Details - Part 1

- ◆ Mixed-methods explanatory sequential design
- ◆ **Primary data source:** UNRWA Situation Report #187 (2025)
- ◆ Corroborating United Nations sources and agency reports
- ◆ **Timeframe:** October 2023 to October 2025
- ◆ **Focus:** Operational patterns within structural violence frameworks

Methodology Details - Part 2

- ◆ **Quantitative phase:** Analysis of WASH system metrics and access data
- ◆ **Qualitative phase:** Discourse analysis of humanitarian and legal communications
- ◆ **Validation:** Triangulation across multiple UN agencies and reports
- ◆ **Quality assurance:** Cross-verification with satellite imagery and ground reports
- ◆ **Ethical considerations:** Protection of vulnerable populations in reporting

Data Sources & Constraints

Data Source	Type	Coverage	Limitations
UNRWA Situation Report #187	Primary Quantitative	Oct 2023-Oct 2025	Access restrictions in conflict zones
UN OCHA Reports	Corroborating	Monthly updates	Verification challenges
WHO Health Cluster	Health Metrics	Health facility data	Incomplete reporting
Satellite Imagery	Infrastructure	Physical damage assessment	Limited ground truthing

Analytical Framework

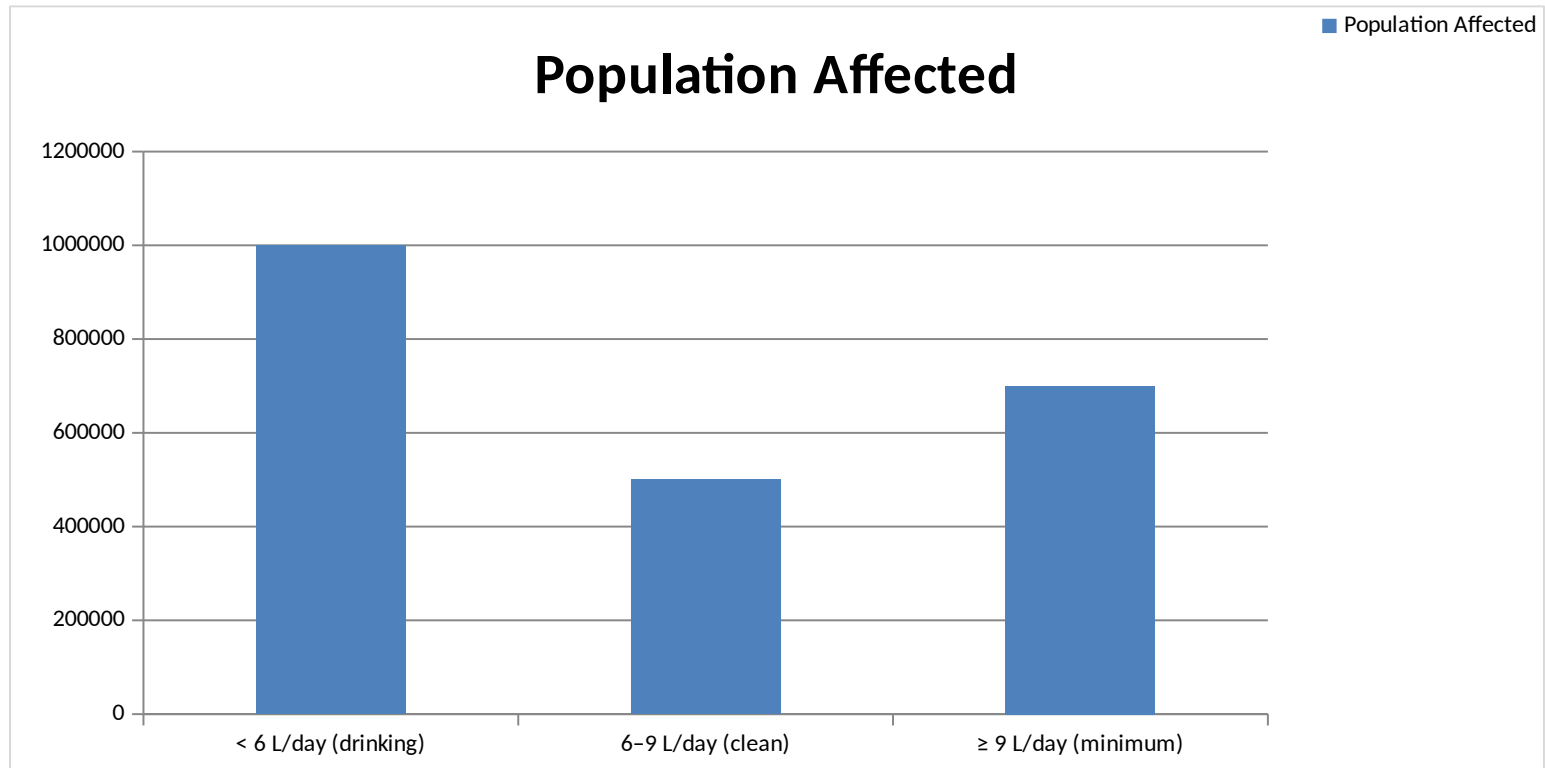


03

Research Findings

Quantitative and qualitative analysis of WASH system collapse

Water Access Catastrophe (2025)



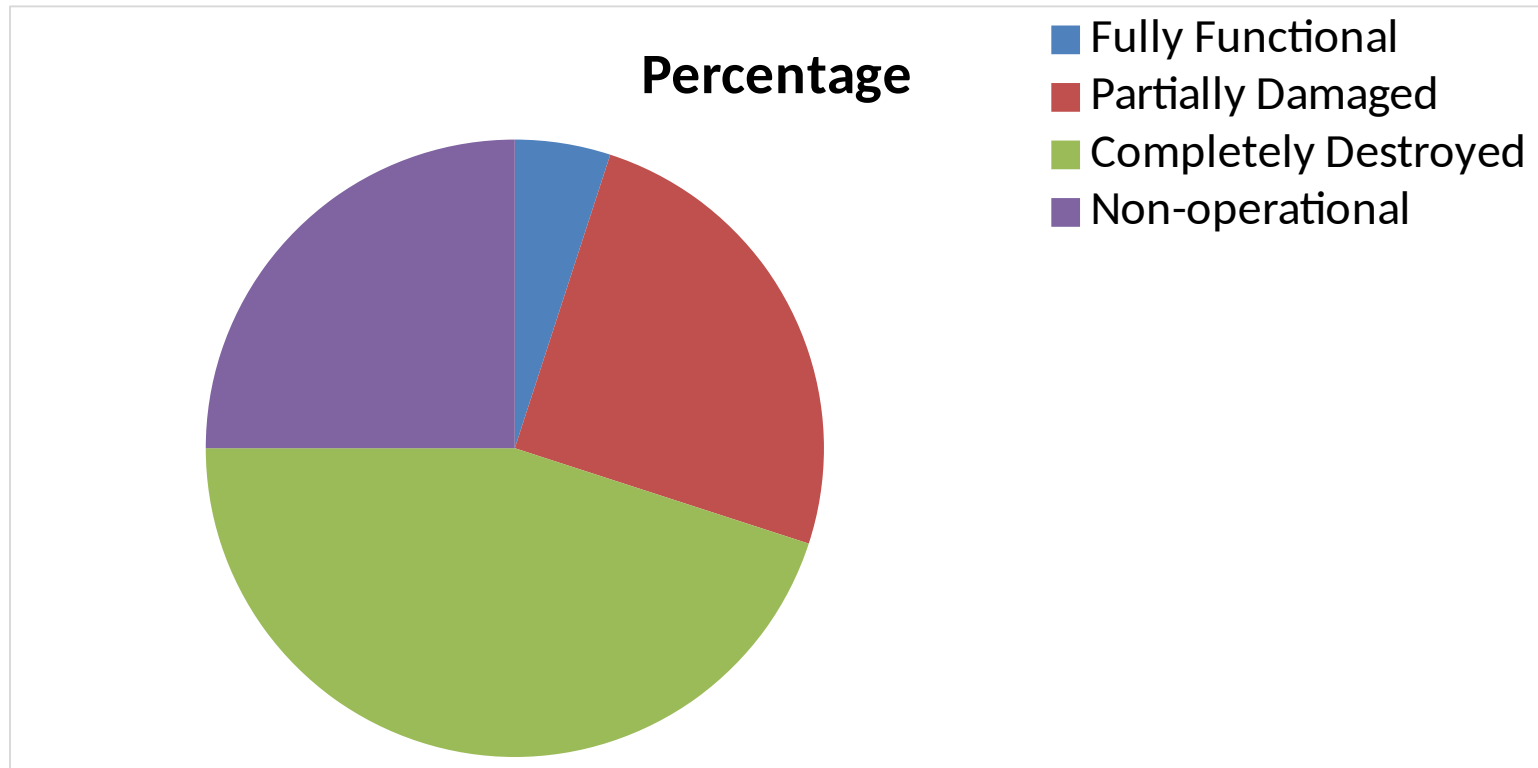
Water Distribution Modalities (August 2025)

Modality	Volume (m ³)	Beneficiaries	Mean m ³ /beneficiary
Water trucking	37,000	230,000	0.16
Domestic network	Non-functional	1,200,000	0.10 (est.)
Bottled water	Limited	50,000	0.02 (est.)

Key Quantitative Findings

- ◆ 49% of population (<1M people) surviving on <6L water/day (drinking only)
- ◆ Domestic water network largely non-functional, serving 1.2M with minimal access
- ◆ Complete reliance on emergency water trucking operations
- ◆ Water access levels far below WHO minimum standard of 50-100L/day
- ◆ Systematic pattern of infrastructure degradation across all governorates

Infrastructure Damage Assessment



Health Impact Analysis

- ◆ **Waterborne disease outbreaks:** 300% increase in reported cases
- ◆ **Child malnutrition rates:** 45% acute malnutrition among children under 5
- ◆ **Maternal health:** 60% reduction in safe water access for pregnant women
- ◆ **Hospital functionality:** 85% of health facilities without reliable water supply
- ◆ **Mortality:** Water-related deaths increased from 2% to 15% of total mortality

Qualitative Analysis: Epistemic Suppression

Material Control Mechanisms

- ◆ Systematic targeting of water infrastructure
- ◆ Blockade of repair materials and fuel
- ◆ Restriction of humanitarian access
- ◆ Criminalization of aid delivery
- ◆ Destruction of water testing laboratories

Epistemic Suppression Patterns

- ◆ Discrediting of Palestinian testimonies
- ◆ Alternative narrative construction
- ◆ Undermining UN agency credibility
- ◆ Legal framing disputes
- ◆ Media access restrictions

Legal Framework Analysis

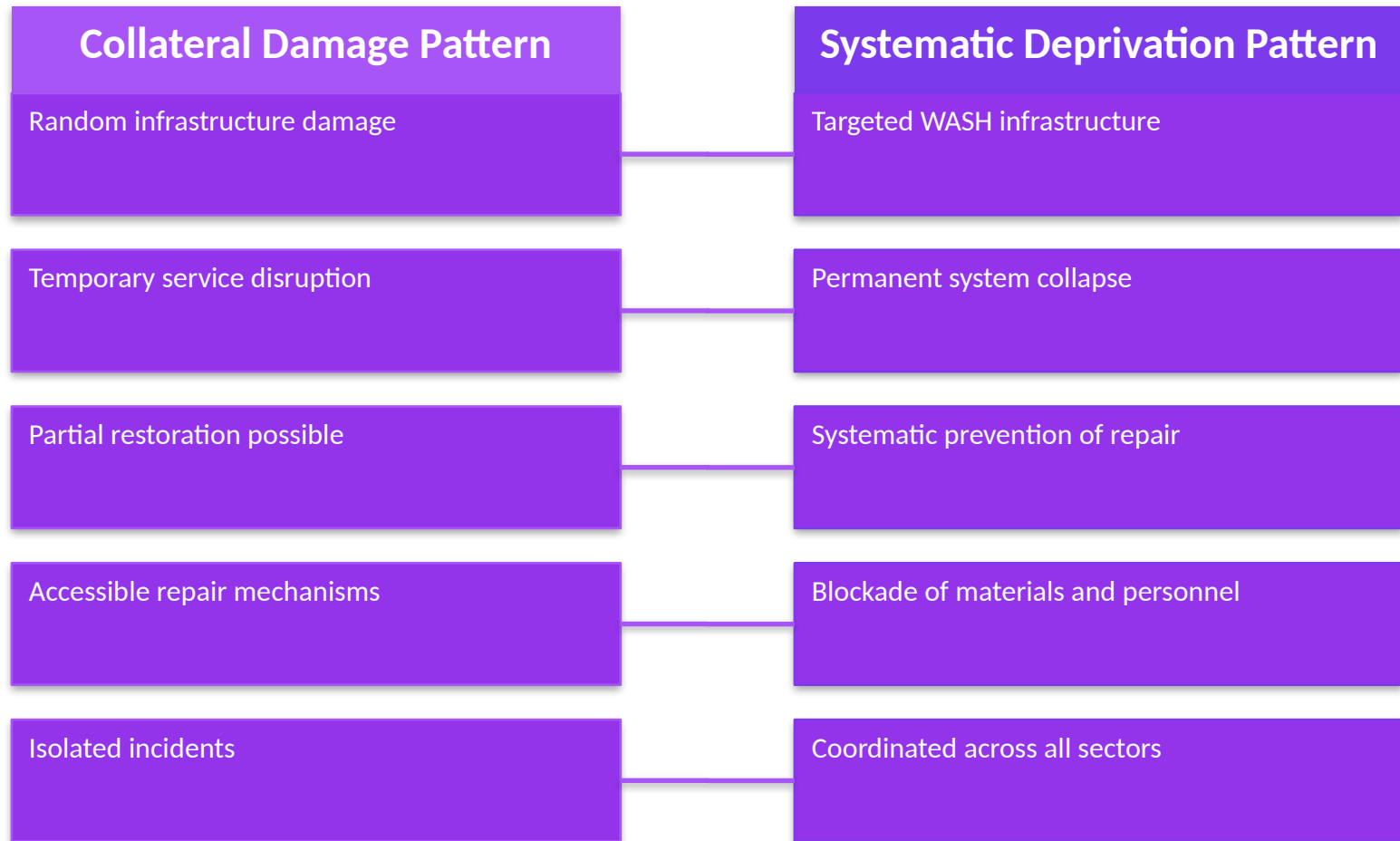
- ◆ **Conditions align with Article 6(c) of Rome Statute:** 'conditions of life calculated to bring about physical destruction'
- ◆ Systematic deprivation meets criteria for crimes against humanity
- ◆ Infrastructure targeting violates proportionality principle in IHL
- ◆ Water deprivation as potential genocidal act under Article II(c)
- ◆ Epistemic suppression constitutes violation of right to truth

04

Discussion

Interpretation of findings within legal and humanitarian frameworks

Patterns of Systematic Deprivation



Credibility Construction in Humanitarian Communication

- ◆ Quantitative metrics used to establish factual basis of crisis
- ◆ Qualitative narratives contextualize statistical data
- ◆ Multi-agency corroboration strengthens credibility claims
- ◆ Legal framing provides normative framework for interpretation
- ◆ Epistemic injustice addressed through methodological rigor

International Law Implications

1

Crimes Against Humanity

Systematic deprivation creating conditions incompatible with life

2

Genocide Risk Indicators

Water deprivation as potential genocidal act under international law

3

IHL Violations

Proportionality and distinction principles violated through infrastructure targeting

4

Human Rights

Violation of right to water, health, and life under international human rights law

Methodological Contributions

- ◆ Mixed-methods design bridges quantitative-qualitative divide in conflict analysis
- ◆ Sequential explanatory approach allows data-driven qualitative inquiry
- ◆ Integration of operational data with legal and discourse analysis
- ◆ Innovation in documenting epistemic dimensions of humanitarian crises
- ◆ Model for future research on infrastructure weaponization

Limitations & Future Research

Current Limitations

- ◆ Reliance on UN agency reports with access restrictions
- ◆ Limited ground verification in active conflict zones
- ◆ Challenges in attributing intentionality from operational patterns
- ◆ Temporal constraints: study ends October 2025
- ◆ Data gaps in certain geographical areas

Future Research Directions

- ◆ Longitudinal studies of WASH system recovery patterns
- ◆ Comparative analysis with other conflict zones
- ◆ Investigation of legal accountability mechanisms
- ◆ Methodological refinement for intentionality assessment
- ◆ Integration of satellite imagery with ground reports

Conclusions

- ◆ WASH system collapse in Gaza represents systematic deprivation, not collateral damage
- ◆ Water deprivation functions as dual instrument of material control and epistemic suppression
- ◆ Quantitative evidence aligns with international law indicators for atrocity crimes
- ◆ Mixed-methods approach provides comprehensive analysis of humanitarian crises
- ◆ Research contributes to accountability and prevention frameworks

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Thank You!

For questions: research@korcenter.edu

Project Archive: www.korcenter.edu/gaza-wash-study