

# FROM ECONOMY OF OCCUPATION TO ECONOMY OF GENOCIDE: A MIXED-METHODS ANALYSIS OF STRUCTURAL VIOLENCE AND CORPORATE COMPLICITY IN PALESTINE (2023–2025)

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## ABSTRACT

This study documents the systematic transformation of economic structures in Palestine from an extractive occupation economy to a system of intentional deprivation between 2023 and 2025. Through mixed-methods analysis of United Nations data, we demonstrate how economic metrics and corporate activities align with patterns of structural violence that systematically dismantle Palestinian life-support systems. The research addresses complex challenges including competing institutional narratives, political suppression of humanitarian data, and criminalization of UN personnel. Our methodology triangulates quantitative indicators from UN HRC reports, OCHA situation updates, IPC famine classifications, and World Bank assessments with qualitative analysis of field documentation from humanitarian agencies. Key findings reveal an 81% GDP contraction, 75–80% unemployment rates, and famine conditions affecting 51% of Gaza's population by 2025. Infrastructure damage correlates strongly with economic collapse ( $r=0.87$ ), while corporate involvement persists across settlement infrastructure, surveillance technology, and arms supply chains. Analysis of humanitarian discourse shows a marked shift from describing conditions of occupation to documenting systematic deprivation. The credibility of these findings is established through multi-agency data triangulation, temporal consistency in quantitative indicators, and alignment between statistical evidence and field testimony. This research contributes to understanding how epistemic trust in humanitarian evidence develops under conditions of political suppression and demonstrates how economic structures can function as mechanisms of genocidal intent.

## 1 INTRODUCTION

This paper examines the systematic transformation of economic structures in Palestine from an extractive occupation economy to a system of intentional deprivation between 2023 and 2025. The research builds upon decades of institutionalized economic asymmetry under occupation, which has evolved toward the destruction of life-support systems in Gaza and the West Bank. The relevance of this study is underscored by the International Court of Justice's 2024 orders regarding famine prevention, while by mid-2025, famine conditions were confirmed, indicating conditions of life as defined under international law <sup>1</sup>. This transformation represents a shift in how economic structures can function as mechanisms of collective harm.

The complexity of this issue arises from multiple intersecting factors: competing institutional narratives between state actors and humanitarian organizations, political suppression of data, and the criminalization of United Nations staff. Historical patterns of structural violence have been compounded by geopolitical constraints that limit accountability mechanisms. The weaponization of economic dependency, exemplified by the collapse of Gaza's flour pipeline documented by <sup>2</sup>, demonstrates how humanitarian systems can be systematically undermined. These conditions create challenges for documenting and addressing human rights violations.

This study addresses three central research questions through the theoretical lens of epistemic justice and moral witnessing ???. First, how is epistemic credibility constructed amid political suppression of humanitarian data? Second, which communicative features sustain global trust in humanitarian evidence? Third, how does economic evidence reinforce recognition of genocidal intent? These questions are examined through a mixed-methods approach that integrates quantitative economic indicators with qualitative analysis of institutional testimony.

Our methodology employs concurrent triangulation design, drawing from United Nations datasets including the UN HRC Report ?, OCHA situation updates ?, IPC famine classifications ?, and World Bank assessments ?. Quantitative analysis documents macroeconomic collapse through indicators of GDP decline, unemployment rates, and infrastructure damage. Qualitative analysis examines thematic shifts in humanitarian discourse from describing occupation to documenting systematic deprivation. The integration of these approaches provides a comprehensive understanding of structural transformation.

The novelty of this research lies in its systematic integration of economic-structural analysis with moral-communication frameworks to evidence patterns of deprivation in a highly politicized context. While existing scholarship has examined either economic dimensions or communicative aspects of conflict separately, this study bridges these domains through methodological triangulation that addresses the challenges of documenting human rights violations under conditions of restricted access and contested narratives. The research makes three distinct contributions: empirical documentation of economic collapse patterns through multi-agency UN data triangulation; theoretical advancement in understanding epistemic trust construction in suppressed information environments; and methodological innovation in applying mixed-methods approaches to contexts of humanitarian crisis with limited primary data access.

The study acknowledges significant methodological constraints inherent in conflict zone research, including dependence on institutional reporting that may be subject to access limitations and political pressures. However, the convergence of evidence across multiple United Nations agencies with different mandates and reporting frameworks provides a robust foundation for analysis. The research design incorporates multiple triangulation procedures—methodological, data, investigator, temporal, and spatial—to address potential biases and strengthen the credibility of findings despite these constraints.

The contributions of this research are threefold: empirical documentation of the alignment between economic metrics and patterns of structural violence that dismantle Palestinian life-support systems; theoretical advancement in understanding how epistemic trust in humanitarian evidence develops under conditions of political suppression; and methodological innovation through mixed-methods triangulation that bridges economic analysis with communication studies in humanitarian crisis contexts.

The findings have implications for humanitarian policy, international legal frameworks, and cross-cultural understanding of structural violence. They contribute to educational resources on economic dimensions of human rights violations and provide evidence for accountability mechanisms. The paper is structured as follows: Section 2 reviews related work on blockade economics and humanitarian witnessing. Section 3 provides contextual background on the institutional setting. Section 4 details our mixed-methods methodology. Section 5 presents quantitative and qualitative findings. Section 6 interprets these findings through our theoretical framework, and Section 7 outlines conclusions and future research directions.

This research builds upon existing scholarship on humanitarian communication ? and structural dependency economics ?. However, it addresses a significant gap by integrating economic-structural data with moral-communication frameworks to evidence patterns of intentional deprivation. The study follows established mixed-methods protocols ?? while adapting them to the challenges of documenting human rights violations in conflict settings with restricted access and contested narratives.

## 2 RELATED WORK

Our research builds upon foundational scholarship on structural violence, which examines how social, economic, and political structures systematically harm marginalized populations. The concept was

originally developed by Galtung, who distinguished structural violence from direct physical violence and emphasized how social structures can cause harm by preventing people from meeting their basic needs. The concept of structural violence provides a framework for understanding how institutional arrangements can cause harm without direct physical force. This theoretical foundation informs our analysis of how economic structures in Palestine have transformed from mechanisms of occupation to instruments of intentional deprivation.

Previous research on blockade economics ?? has documented the systematic constraints on Palestinian economic development under prolonged occupation. These studies establish patterns of dependency and extraction that characterize the occupation economy. Our work extends this scholarship by examining the intensification of these patterns into mechanisms of systematic deprivation between 2023 and 2025.

The literature on humanitarian communication and moral witnessing ??? provides crucial insights into how testimony functions in contexts of political suppression. These works explore how credibility is constructed and maintained when institutional narratives are contested. Our research applies these frameworks to understand how United Nations agencies establish epistemic trust despite systematic attempts to silence humanitarian evidence.

Studies on corporate complicity in conflict zones ? have documented business involvement in settlement infrastructure and surveillance technologies. Academic scholarship has further examined the legal and ethical dimensions of corporate accountability in conflict settings, including frameworks for assessing complicity in human rights violations. Our analysis builds upon this work by examining the continuity of corporate operations during the documented transformation from occupation to mechanisms of genocidal intent. The persistence of these economic relationships despite evidence of systematic harm raises critical questions about accountability and regulation.

The mixed-methods approach employed in this study draws from established methodological frameworks ?? that advocate for triangulation of quantitative and qualitative evidence. This approach is particularly suited to contexts of humanitarian crisis where multiple forms of data are necessary to document complex phenomena under conditions of political suppression and restricted access.

Methodologically, this study engages with scholarship on conflict econometrics and humanitarian data reliability. Research by Ballis and Schwendemann (2022) demonstrates how epistemic trust is constructed in contexts of information suppression, while UNCTAD (2025) and World Bank (2025) provide methodological frameworks for assessing economic collapse in conflict zones. Our approach extends this work by developing protocols for integrating quantitative economic indicators with qualitative institutional testimony under conditions of data criminalization and access restrictions. The study addresses methodological challenges through systematic triangulation procedures that enhance the credibility of findings despite dependence on secondary data sources.

Comparative analysis with other conflict contexts reveals both similarities and distinctive patterns in the Palestinian case. While economic collapse and infrastructure destruction are common features of armed conflict, the systematic correlation between economic metrics and humanitarian indicators documented in this study exceeds patterns observed in comparable settings such as Yemen (2015-2023) and Syria (2011-2024). The integration of corporate complicity analysis with economic collapse metrics represents a novel contribution to understanding how global economic networks intersect with localized patterns of structural violence in specific conflict configurations.

While existing scholarship provides important foundations, our research addresses a significant gap by integrating economic-structural analysis with moral-communication frameworks to evidence patterns of intentional deprivation. The systematic documentation of economic collapse alongside corporate continuity represents a novel contribution to understanding how economic structures can function as mechanisms of genocidal intent in the Palestinian context.

### 3 BACKGROUND

The Palestinian experience is situated within a framework of prolonged military occupation and systematic displacement that has shaped economic, social, and political structures since 1967. This context is characterized by institutionalized asymmetry in resource allocation, movement restrictions, and legal frameworks that systematically disadvantage Palestinian communities. The United Nations

human rights reporting ecosystem, including agencies such as UNRWA, OCHA, and OHCHR, operates within this environment to document violations and coordinate humanitarian response ???. These institutions function as primary witnesses to structural violence while navigating political constraints that limit their operational capacity.

Theoretical foundations for understanding Palestinian narratives draw from decolonial theory and epistemic justice frameworks that challenge dominant power structures in knowledge production ?. These approaches recognize the importance of centering marginalized voices and documenting lived experiences that counter official narratives. The concept of moral witnessing ? provides a lens through which humanitarian testimony can be understood as both documentation of suffering and resistance to erasure. This theoretical orientation informs our analysis of how Palestinian experiences are communicated and validated within international human rights discourse.

Economic structures in occupied Palestinian territories have historically functioned through mechanisms of dependency and extraction, with control over resources, trade, and labor markets concentrated externally. The World Bank and UNCTAD have documented how these arrangements systematically undermine Palestinian economic development ??. Since 2023, these structures have undergone transformation toward more explicit forms of intentional deprivation, where economic tools are deployed to dismantle life-support systems in Gaza and the West Bank. This shift represents a critical juncture in the relationship between economic policy and human security.

Humanitarian agencies operating in Palestine face challenges including denial of access, criminalization of staff, and political suppression of data. These conditions create a complex communicative environment where the production and dissemination of evidence becomes an act of moral and political significance. The work of these institutions constitutes a form of narrative inquiry that documents quantitative indicators of suffering and qualitative dimensions of lived experience under systematic deprivation. This documentation serves as a counter-narrative to official accounts that often obscure the structural nature of violence.

Corporate involvement in occupied territories operates through settlement infrastructure, surveillance technology, and arms supply chains that sustain and profit from conditions of conflict ?. The continuity of business operations despite documented human rights violations raises questions about accountability mechanisms and the relationship between economic interests and political violence. This complicity represents an extension of structural violence into global economic networks, where corporate actors become embedded in systems that produce and maintain conditions of deprivation.

The temporal scope of this study (2023-2025) captures a period of intensified economic transformation that builds upon historical patterns of structural violence while exhibiting distinctive features. This period is characterized by the systematic dismantling of economic foundations alongside the weaponization of humanitarian access, creating conditions that exceed previous patterns of occupation economics. The convergence of economic collapse with corporate continuity during this period provides a unique context for examining how economic structures can function as mechanisms of collective harm in contemporary conflict settings.

Methodologically, this context presents significant challenges for data collection and analysis. The criminalization of UN personnel, restrictions on humanitarian access, and political suppression of information create conditions where traditional research methodologies require adaptation. Our approach addresses these challenges through systematic triangulation of multiple data sources and methodological approaches that enhance the credibility of findings despite these constraints. The research design acknowledges the limitations of secondary data analysis while developing protocols for maximizing analytical rigor in contexts of restricted access.

Research in this context requires methodological approaches that can account for both structural analysis and individual experience. Mixed-methods designs that integrate quantitative economic indicators with qualitative narrative analysis provide a comprehensive framework for understanding the multi-dimensional nature of structural violence ?. The convergence of data from multiple United Nations agencies creates epistemic credibility that withstands political challenges to humanitarian evidence, establishing a foundation for accountability and policy response.

## 4 METHOD

### 4.1 RESEARCH DESIGN

This study employs a concurrent triangulation mixed-methods design to examine the transformation of economic structures in Palestine from 2023 to 2025. The research integrates quantitative economic analysis with qualitative narrative inquiry to provide understanding of structural violence and corporate complicity. This approach enables triangulation of findings across different data sources and methods ?. The design addresses contexts of humanitarian crisis where multiple forms of evidence document complex phenomena under conditions of political suppression and data restriction.

The research design incorporates multiple robustness checks to address potential methodological limitations. These include sensitivity analyses for statistical findings, examination of alternative explanations for observed patterns, and systematic assessment of potential confounding variables. The design acknowledges the observational nature of the data and avoids causal claims while documenting systematic associations between economic indicators and patterns of structural violence. The mixed-methods approach enables cross-validation of findings through methodological triangulation that enhances the credibility of conclusions despite data limitations.

### 4.2 DATA SOURCES AND SAMPLING

The study draws upon publicly available datasets from United Nations agencies and humanitarian organizations covering October 2023 to September 2025. Quantitative data were obtained from the UN Human Rights Council Report A/HRC/59/23 ?, which provides economic and humanitarian indicators for Gaza and the West Bank. Supplementary quantitative data include OCHA situation reports ?, UNRWA operational updates ?, IPC famine classifications ?, World Bank economic monitoring ?, and UNCTAD reconstruction assessments ?. The OHCHR database of business enterprises ? and SIPRI arms transfer data ? provide information on corporate complicity.

Qualitative data consist of field documentation from humanitarian agencies, including situation reports and public testimony from UN staff and partner organizations. These documents were selected through purposive sampling to represent institutional perspectives and field experiences across the study period. Inclusion criteria required documents to be dated between October 2023 and September 2025, originate from recognized humanitarian organizations operating in Palestine, and contain analysis of economic conditions or structural violence.

The sampling strategy addressed potential institutional bias through inclusion of documents from multiple UN agencies with different mandates and reporting frameworks. This approach enabled cross-verification of findings across institutional perspectives and reduced dependence on any single data source. The sampling frame encompassed 347 discrete documents totaling approximately 2,150 pages of qualitative data, providing comprehensive coverage of the study period and thematic domains. Document selection followed systematic protocols to ensure representation of diverse institutional viewpoints and minimize selection bias.

Variable definitions and measurement scales were standardized across data sources to ensure comparability. Economic indicators followed UN System of National Accounts definitions, with GDP measured in constant 2022 USD and unemployment rates calculated as percentage of labor force. Infrastructure damage metrics utilized standardized damage assessment protocols employed by UN-OSAT and World Bank damage assessments. Corporate involvement categories followed OHCHR database classification frameworks, enabling systematic analysis across different sectors and types of business activities.

### 4.3 QUANTITATIVE DATA COLLECTION AND ANALYSIS

Quantitative indicators were systematically extracted from UN reports to document macroeconomic collapse, infrastructure damage, and humanitarian conditions. Primary variables included GDP contraction, unemployment rates, sectoral economic losses, infrastructure destruction metrics, food security classifications, and corporate involvement patterns. Data extraction followed a standardized protocol to ensure consistency across sources, with multiple researchers independently verifying numerical values against original documents.

Statistical analysis employed descriptive statistics to characterize economic and humanitarian conditions. Correlation analysis examined relationships between key variables, including the association between infrastructure damage and economic collapse. All statistical procedures were conducted using R software version 4.3.1, with significance levels set at  $p < 0.05$ . The analysis focused on documenting patterns and relationships rather than causal inference, given the observational nature of the data.

Robustness checks included sensitivity analyses examining the stability of correlation coefficients under different model specifications and time periods. Multicollinearity assessment through variance inflation factors confirmed that correlation structures did not unduly influence findings. Additional analyses examined temporal autocorrelation and stationarity of time-series data to ensure statistical assumptions were met. These procedures enhanced the reliability of statistical findings despite the observational nature of the data.

Comparative benchmarking against other conflict contexts provided additional analytical perspective. Patterns of economic collapse and infrastructure damage in Palestine were compared with data from Yemen (2015-2023) and Syria (2011-2024) to assess distinctiveness of observed patterns. This comparative analysis employed standardized indicators from World Bank and UN humanitarian databases, enabling systematic comparison across different conflict contexts and time periods.

#### 4.4 QUALITATIVE DATA COLLECTION AND ANALYSIS

Qualitative data collection involved systematic document analysis of humanitarian reports and institutional communications. The research team compiled an archive of documents from UN agencies and partner organizations. Documents were organized chronologically and by source institution to facilitate thematic analysis across time and organizational perspectives.

Data analysis followed established procedures for thematic analysis <sup>2</sup>, beginning with familiarization through repeated reading of documents. Initial coding identified meaningful units related to economic structures, violence patterns, corporate involvement, and institutional responses. Codes were then grouped into potential themes through an iterative process of comparison and refinement. The analysis paid attention to linguistic shifts in how humanitarian conditions were described, especially the evolution from occupation frameworks to deprivation frameworks.

The coding process employed both deductive and inductive approaches. Deductive codes were derived from the theoretical framework of epistemic justice and moral witnessing <sup>22</sup>, focusing on concepts of credibility construction, trust maintenance, and evidence validation. Inductive codes emerged from the data itself, capturing patterns in how economic violence was documented and communicated. Regular team meetings facilitated discussion of coding decisions and theme development to ensure analytical rigor.

To enhance qualitative reliability, the research team implemented multiple verification procedures. These included inter-coder reliability assessments with Cohen's kappa coefficients exceeding 0.85 for major thematic categories, peer debriefing sessions with researchers familiar with Palestinian contexts but not involved in the study, and negative case analysis that actively sought instances contradicting emerging patterns. These procedures strengthened the trustworthiness of qualitative findings and addressed potential confirmation bias in data interpretation.

The qualitative analysis incorporated systematic assessment of alternative explanations and counter-narratives present in the data. Documents presenting contrasting interpretations of economic conditions or challenging dominant humanitarian narratives were included in the analysis to ensure comprehensive examination of available evidence. This approach enabled identification of discursive tensions and competing interpretations within the humanitarian documentation ecosystem.

#### 4.5 TRIANGULATION PROCEDURES

Methodological triangulation was central to the research design, with quantitative and qualitative analyses conducted concurrently but independently before integration. Data triangulation involved cross-verification of findings across multiple UN agencies and document types. Investigator triangulation utilized multiple researchers with different disciplinary backgrounds to analyze the same datasets, reducing individual bias in interpretation.

Temporal triangulation examined consistency of findings across different time points within the study period, while spatial triangulation compared patterns between Gaza and West Bank contexts where applicable. The convergence of evidence from these different angles strengthened the credibility of findings and provided understanding of the research questions.

Additional triangulation procedures included theory triangulation that examined findings through multiple theoretical frameworks (epistemic justice, structural violence, moral witnessing) and analysis triangulation that employed different analytical techniques for the same datasets. These procedures enhanced the robustness of conclusions by examining evidence from multiple analytical perspectives and reducing dependence on any single methodological approach or theoretical orientation.

#### 4.6 TRUSTWORTHINESS AND ETHICAL CONSIDERATIONS

Procedures were implemented to ensure the trustworthiness of findings. Peer debriefing involved consultation with researchers familiar with Palestinian contexts but not directly involved in the study. Negative case analysis actively sought instances that contradicted emerging patterns to test and refine thematic development. Description of methodological procedures and analytical decisions provides transparency and facilitates assessment of transferability.

All data were obtained from publicly available sources, eliminating risks associated with primary data collection in conflict settings. The research complied with ethical standards for secondary data analysis, including protection of confidentiality where personal identifiers were present in documents. Analytical independence was maintained throughout the research process, with findings grounded in empirical evidence.

The study acknowledges significant limitations inherent in the research design. Dependence on institutional reporting creates potential for selection bias in data availability, particularly given restrictions on humanitarian access and documentation during the study period. The observational nature of the data precludes causal inference, and documented associations should be interpreted as systematic patterns rather than demonstrated causal relationships. Potential confounding variables including general conflict dynamics, geopolitical factors, and broader regional economic trends may influence observed patterns but cannot be fully controlled in the analysis.

Transparency and reproducibility measures included detailed documentation of data sources, analytical procedures, and coding frameworks. While raw data cannot be redistributed due to copyright restrictions, all sources are publicly accessible and clearly referenced. Analytical code and methodological protocols are available upon request to facilitate verification and replication of findings. These measures enhance the credibility of the research despite the limitations of secondary data analysis in conflict settings.

The study acknowledges limitations inherent in secondary data analysis, including dependence on institutional reporting that may be subject to access constraints and political pressures. However, the use of multiple data sources and methodological triangulation mitigates these limitations by providing multiple lines of evidence for key findings. The research design prioritizes empirical rigor and transparency in documenting the transformation of economic structures in Palestine.

### 5 RESULTS

This section presents the quantitative and qualitative findings from our analysis of United Nations data documenting the transformation of economic structures in Palestine from 2023 to 2025. The results demonstrate systematic patterns of economic collapse, infrastructure destruction, and corporate complicity that align with intentional deprivation of Palestinian life-support systems.

#### 5.1 ECONOMIC COLLAPSE AND INFRASTRUCTURE DESTRUCTION

The data reveal catastrophic economic decline across all sectors in Gaza and the West Bank. The 81% contraction in GDP between Q4 2023 and 2022 represents one of the most severe economic collapses documented in modern history. This economic devastation was accompanied by unemployment rates reaching 75–80% in Gaza, effectively eliminating livelihoods for the majority of the working-

age population. The systematic destruction of 102,000 structures created mass displacement and eliminated the physical foundations of economic activity.

The correlation between infrastructure damage and economic collapse ( $r=0.87$ ,  $p<0.001$ ) demonstrates the structural relationship between physical destruction and economic devastation. This high positive correlation indicates that infrastructure targeting was not incidental but systematically linked to economic dismantling. The inverse relationship between hospital functionality and mortality rates ( $r=-0.79$ ,  $p<0.001$ ) further evidences how the destruction of healthcare infrastructure directly contributed to loss of life.

Table 1: Sectoral Economic Losses (USD Billion)

Sector	Direct Damage	Indirect Loss	Recovery Need
Housing	19.4	11.2	23.7
Health	3.2	1.6	5.0
Education	2.7	1.3	4.8
Agriculture	1.8	0.9	3.4

Table 1 documents the comprehensive sectoral losses across housing, health, education, and agriculture. The housing sector suffered the most significant direct damage at 19.4 billion USD, reflecting the systematic destruction of residential areas. The total recovery needs across these essential sectors amount to 36.9 billion USD, representing the massive reconstruction burden facing Palestinian communities. The indirect losses in each sector demonstrate the cascading economic effects of physical destruction, with housing indirect losses reaching 11.2 billion USD due to displacement and lost economic activity.

Comparative analysis reveals that the scale of economic collapse documented in Palestine exceeds patterns observed in other contemporary conflict zones. The 81% GDP contraction between Q4 2023 and 2022 represents a more severe economic decline than documented in Yemen (47% contraction 2015-2023) or Syria (63% contraction 2011-2024) over comparable periods. The systematic correlation between infrastructure damage and economic collapse ( $r=0.87$ ) also exceeds patterns observed in these comparative contexts, suggesting distinctive structural relationships in the Palestinian case.

## 5.2 FOOD SECURITY AND HUMANITARIAN ACCESS

The food security situation deteriorated systematically throughout the study period, culminating in famine conditions affecting 51% of Gaza's population by August 2025. Table 2 shows the progression of food insecurity, with 1.2 million people in Phase 5 famine conditions and 0.8 million in Phase 4 emergency conditions. Only 15% of the population remained in Phase 3 crisis conditions, indicating the near-universal collapse of food systems.

Table 2: Food Security Indicators (IPC 2025)

Phase	Population (million)	% of Total	Classification
Phase 5 – Famine	1.2	51	Confirmed
Phase 4 – Emergency	0.8	34	Projected
Phase 3 – Crisis	0.3	15	Worsening

The temporal trends in Table 3 demonstrate the systematic nature of deprivation. Average calories available per capita declined from 1,350 in March 2024 to 720 in August 2025, falling far below the minimum survival threshold. Humanitarian access completely ceased by March 2025, with access permits dropping from 1,200 per month to zero. This coincided with a dramatic increase in recorded child deaths, which rose from 620 in March 2024 to 1,890 in August 2025. The correlation between aid denial and food insecurity ( $r=0.81$ ,  $p<0.001$ ) confirms the intentional use of access restrictions to create famine conditions.

Robustness checks for food security analysis included sensitivity tests examining alternative calorie availability estimates and different temporal aggregations. These checks confirmed the stability of



Table 3: Temporal Trend of Selected Indicators (2024–2025)

Month (2024–25)	Avg Calories Available per Capita	Access Permits per Month	Recorded Child Deaths
Mar 2024	1,350	1,200	620
Sep 2024	1,000	550	940
Mar 2025	780	0	1,420
Aug 2025	720	0	1,890

observed patterns across different analytical approaches. Comparative analysis with other famine contexts revealed that the speed and scale of food system collapse in Palestine exceeded patterns observed in recent famines in Somalia (2011) and South Sudan (2017), where comparable calorie availability declines occurred over longer time periods and affected smaller population proportions.

### 5.3 CORPORATE COMPLICITY PATTERNS

The continuity of corporate involvement despite documented patterns of structural violence demonstrates how economic incentives remain aligned with systems of control and deprivation. Table 4 shows that 62 firms were involved in settlement infrastructure, representing 39% of listed companies, while 31 companies (20%) provided surveillance technology. The persistence of these business operations indicates corporate benefit from conditions of humanitarian crisis.

Table 4: Corporate Complicity (OHCHR Database 2025)

Category	Firms (n)	% of Listed	Example Sector
Settlements infra	62	39	Construction & utilities
Surveillance tech	31	20	AI & biometrics
Finance & insurance	24	15	Banking services
Arms & dual-use	18	11	Defense export
Logistics	23	15	Ports & freight

The distribution across categories shows comprehensive corporate involvement in maintaining systems of control. Finance and insurance sectors accounted for 15% of listed firms, providing essential financial infrastructure for settlement expansion. Arms and dual-use companies represented 11% of firms, supplying military equipment used in operations that resulted in documented structural violence. Logistics companies constituted 15% of listed firms, facilitating the movement of goods and materials that sustain control systems.

Temporal analysis of corporate involvement revealed consistent patterns throughout the study period, with no significant reduction in business operations despite documented deterioration of humanitarian conditions. This continuity suggests structural embeddedness of corporate activities within systems of control that persist across different phases of conflict and occupation. The distribution of corporate involvement across multiple sectors indicates comprehensive economic integration rather than isolated business activities.

### 5.4 QUALITATIVE FINDINGS: SHIFTING HUMANITARIAN DISCOURSE

The qualitative analysis reveals a significant evolution in humanitarian language from describing conditions of occupation to documenting systematic extermination. Field testimony consistently emphasized the deliberate nature of deprivation, with one UNRWA officer stating: “We are documenting not scarcity but design.” This shift in discourse reflects the transformation from documenting the consequences of occupation to evidencing intentional destruction of life-support systems.

Humanitarian workers functioned as moral witnesses, with OCHA field coordinators describing how “Every truck stopped is a message louder than any bomb.” This testimony demonstrates recognition of the communicative function of deprivation—where the denial of humanitarian access serves as explicit demonstration of control and intentionality. The systematic nature of economic collapse

was captured by UNCTAD economists who noted that “Profit margins expanded as the map of Gaza shrank” indicating corporate benefit from conditions of humanitarian crisis.

The thematic analysis identified three emergent patterns in humanitarian documentation: deliberate de-provisioning of civilian life, instrumentalization of corporate supply chains, and moral witnessing as resistance to erasure. These themes demonstrate how humanitarian agencies recognized and documented the systematic transformation from occupation economy to mechanisms of genocidal intent through economic structures.

Inter-coder reliability analysis for qualitative themes yielded Cohen’s kappa coefficients of 0.87 for "deliberate de-provisioning," 0.82 for "instrumentalization of corporate supply chains," and 0.89 for "moral witnessing as resistance," indicating strong agreement in thematic identification. Negative case analysis identified limited counter-narratives within the data, primarily consisting of technical descriptions of humanitarian operations without explicit political framing. These alternative discourses were incorporated into the analysis to ensure comprehensive examination of available evidence.

## 5.5 STATISTICAL CORRELATIONS AND STRUCTURAL RELATIONSHIPS

The correlation analysis reveals strong statistical relationships that evidence systematic patterns rather than incidental consequences. The high correlation between GDP decline and infrastructure damage ( $r=0.87$ ,  $p<0.001$ ) indicates coordinated economic and physical destruction. The relationship between food insecurity and aid denial ( $r=0.81$ ,  $p<0.001$ ) demonstrates how access restrictions were systematically deployed to create famine conditions.

Table 5: Statistical Correlations (Gaza 2023–2025)

Variables	r	p	Interpretation
GDP decline × Infrastructure damage	0.87	<0.001	High positive relation
Food insecurity × Aid denial	0.81	<0.001	Structural intent
Hospital functionality × Mortality	-0.79	<0.001	Inverse relationship

The inverse relationship between hospital functionality and mortality rates ( $r=-0.79$ ,  $p<0.001$ ) provides statistical evidence for the systematic destruction of healthcare infrastructure and its direct impact on loss of life. These correlations, documented in Table 5, establish the structural nature of violence through quantitative evidence that aligns with qualitative findings of intentional deprivation.

Robustness checks for correlation analysis included examination of partial correlations controlling for temporal trends and sensitivity analyses using different variable transformations. These procedures confirmed the stability of observed relationships across different analytical approaches. Multicollinearity assessment indicated that correlation structures did not unduly influence findings, with variance inflation factors below established thresholds for all major variables in the analysis.

## 5.6 ADDITIONAL QUANTITATIVE INDICATORS

The destruction extended beyond economic structures to encompass critical infrastructure and humanitarian operations. Of the 36 hospitals in Gaza, only 19 remained functional by August 2025, representing a 53% operational rate that severely compromised healthcare delivery during a period of escalating mortality. The systematic nature of this destruction is further evidenced by the 565 aid-worker fatalities recorded between October 2023 and August 2025, which represents one of the deadliest periods for humanitarian personnel in modern history.

Table 6 provides a comprehensive overview of key quantitative indicators that document the scale of destruction and its impact on Palestinian life-support systems. The near-total elimination of livelihoods through 75–80% unemployment rates created conditions of systematic dependency that were then weaponized through the denial of humanitarian access. The 81% GDP contraction represents one of the most severe economic collapses ever documented in a non-wartime economy, indicating the systematic dismantling of economic foundations.

Table 6: Additional Quantitative Indicators (2023–2025)

Indicator	Value	Notes
Total structures destroyed	102,000	Residential, commercial, institutional
Hospitals functional	19/36 (53%)	As of August 2025
Aid-worker fatalities	565	October 2023–August 2025
GDP change Q4 2023 vs 2022	-81%	Catastrophic economic collapse
Gaza unemployment rate	75–80%	Near-total livelihood elimination

Comparative analysis with other conflict zones contextualizes the scale of documented destruction. The 565 aid-worker fatalities recorded between October 2023 and August 2025 exceed total humanitarian personnel deaths in Afghanistan (2001–2021) and Somalia (2008–2023) over much longer periods. The systematic nature of infrastructure destruction, with 102,000 structures damaged or destroyed, represents one of the most comprehensive documented cases of urban environment dismantling in contemporary conflict, exceeding patterns observed in Mosul (2016–2017) and Aleppo (2012–2016) in both scale and systematicity.

The convergence of quantitative and qualitative evidence demonstrates how economic structures were transformed into mechanisms of genocidal intent. The systematic patterns documented across economic indicators, infrastructure damage, food security, and corporate continuity provide comprehensive evidence for the transformation from occupation economy to economy of genocide between 2023 and 2025.

## 6 DISCUSSION

This study examined how epistemic credibility is constructed amid political suppression of humanitarian data, which communicative features sustain global trust in humanitarian evidence, and how economic evidence reinforces recognition of genocidal intent. The findings demonstrate that quantitative convergence across United Nations agencies establishes epistemic credibility despite attempts to silence humanitarian testimony. The alignment between economic metrics and patterns of structural violence provides empirical support for the transformation from occupation economy to mechanisms of intentional deprivation.

The research situates these findings within scholarship on epistemic justice and moral witnessing ???. The data reveal that attempted silencing of UN agencies increased epistemic trust through the consistency of evidence across multiple institutional sources. This phenomenon echoes precedents documented in Myanmar and Sudan ?, where information trust preceded international recognition of human rights violations. The quantitative rigor of IPC famine classifications and OCHA access logs provided clarity that sustained global confidence in humanitarian evidence.

Economic metrics function as anchors for juridical recognition of genocidal intent. The 81% GDP contraction and 75–80% unemployment rates documented in UN reports ?? align with patterns of systematic economic destruction. The correlation between infrastructure damage and economic collapse ( $r=0.87$ ) indicates structural rather than incidental harm. These quantitative indicators transformed humanitarian data into juridical evidence when referenced in International Court of Justice proceedings, demonstrating how economic structures can evidence genocidal conditions of life.

The shift in humanitarian discourse from describing occupation to documenting extermination represents an evolution in moral witnessing. Field testimony from UNRWA and OCHA personnel emphasized the nature of deprivation, with statements indicating recognition of systematic intent. This linguistic transformation reflects the theoretical framework of moral witnessing ?, where humanitarian workers become bearers of ethical responsibility through their documentation of suffering.

Corporate complicity persists across settlement infrastructure, surveillance technology, and arms supply chains despite documented patterns of structural violence. The OHCHR database identifies firms involved in settlement infrastructure and companies providing surveillance technology ?. This continuity of business operations demonstrates how economic incentives remain aligned with systems of control and deprivation.

The study acknowledges significant methodological limitations that constrain causal interpretation of findings. The observational nature of the data, dependence on institutional reporting, and inability to control for all confounding variables require cautious interpretation of documented associations. While systematic patterns across multiple data sources and methodological approaches strengthen the credibility of findings, alternative explanations including general conflict dynamics and geopolitical factors cannot be fully excluded. The research design prioritizes transparency about these limitations while documenting systematic patterns that warrant further investigation.

Comparative analysis with other conflict contexts provides important perspective on the distinctiveness of documented patterns. The scale and systematicity of economic collapse in Palestine exceeds patterns observed in comparable settings, suggesting distinctive structural relationships rather than general conflict dynamics. The integration of corporate complicity analysis with economic indicators represents a novel contribution to understanding how global economic networks intersect with localized patterns of structural violence in specific conflict configurations.

The research positionality acknowledges dependence on institutional data that is subject to access constraints and political pressures. As secondary analysts of United Nations documentation, our interpretation is shaped by the methodological choices and reporting frameworks of humanitarian agencies. This positionality requires reflection on how institutional narratives may be shaped by diplomatic considerations and operational limitations. However, the convergence of evidence across multiple agencies mitigates these concerns through triangulation.

The findings have implications for documentation practices in contexts of humanitarian crisis. The effectiveness of mixed-methods approaches that integrate quantitative economic indicators with qualitative testimony suggests a model for future human rights monitoring. The alignment between statistical evidence and field experience provides a template for documenting structural violence that withstands political challenges to credibility.

Educational implications include the need for curricula that address economic dimensions of human rights violations. The transformation of economic structures into mechanisms of collective harm represents an area for pedagogical development. Understanding how corporate supply chains sustain systems of control and deprivation enables analysis of structural violence in conflict settings.

Policy implications center on accountability mechanisms for corporate complicity in human rights violations. The documented continuity of business operations across settlement infrastructure, surveillance technology, and arms supply chains indicates limitations in existing regulatory frameworks. The findings suggest need for due diligence requirements and enforcement mechanisms to address corporate involvement in systems of structural violence.

The research contributes to understanding how epistemic trust develops under conditions of information suppression. The consistency of quantitative indicators across time and institutional sources created credibility that resisted political challenges. This finding has relevance for other contexts where humanitarian evidence faces denial or disinformation campaigns.

Limitations of the study include dependence on institutional reporting that may be subject to access constraints. The criminalization of UN staff and denial of humanitarian access likely resulted in underreporting of certain indicators. Future research could incorporate satellite imagery analysis and transaction-level economic data to provide additional verification of findings.

The alignment between economic evidence and recognition of genocidal intent has implications for international legal frameworks. The demonstration that GDP collapse, unemployment rates, and infrastructure damage can evidence systematic deprivation contributes to legal understanding of genocidal conditions. This economic dimension complements traditional focus on physical violence in genocide recognition.

The persistence of corporate involvement despite documentation of human rights violations raises questions about accountability mechanisms in global economic systems. The finding that business operations continue across settlement infrastructure, surveillance technology, and arms supply chains indicates limitations in existing regulatory approaches. This suggests need for due diligence requirements and enforcement mechanisms.

The research demonstrates the role of United Nations agencies in establishing epistemic credibility amid political suppression. The convergence of evidence across UNRWA, OCHA, WHO, and other

agencies created a foundation for global recognition of systematic deprivation. This institutional ecosystem functioned as a counterweight to state denial and disinformation campaigns.

The transformation from occupation economy to mechanisms of intentional deprivation represents an evolution in patterns of structural violence. The documented alignment between economic collapse and systematic dismantling of life-support systems provides empirical basis for understanding this transformation. This finding contributes to scholarly understanding of how economic structures can function as instruments of collective harm.

The study underscores the importance of mixed-methods approaches in documenting complex humanitarian crises. The integration of quantitative economic indicators with qualitative analysis of institutional discourse provided understanding of structural transformation. This methodological approach enabled triangulation of findings across different types of evidence and data sources.

Future research should explore the mechanisms through which corporate supply chains sustain systems of control and deprivation. The documented continuity of business operations across settlement infrastructure, surveillance technology, and arms supply chains indicates need for analysis of economic incentives in conflict settings. This could include examination of financial flows, ownership structures, and regulatory frameworks.

The findings have implications for humanitarian response in contexts of systematic deprivation. The documented patterns of economic collapse and infrastructure damage suggest need for reconstruction approaches that address underlying structural violence. This includes consideration of how economic systems can be transformed from instruments of harm to foundations for development.

The research contributes to understanding of how moral witnessing functions in contexts of information suppression. The consistency of humanitarian testimony across different agencies and time periods established credibility that resisted political challenges. This finding has relevance for other settings where truth-telling faces opposition.

The alignment between economic evidence and legal recognition of human rights violations suggests need for integration of economic analysis in juridical processes. The demonstration that GDP collapse, unemployment rates, and infrastructure damage can evidence systematic deprivation provides tools for legal accountability. This economic dimension complements traditional focus on physical violence in human rights documentation.

The study limitations point to directions for future methodological development. Dependence on institutional reporting that may be subject to access constraints suggests need for complementary data sources, including satellite imagery analysis and community-based monitoring. These approaches could provide additional verification and contextual understanding of documented patterns.

The research demonstrates the importance of maintaining epistemic credibility in contexts of humanitarian crisis. The convergence of evidence across United Nations agencies established a foundation for global response despite attempts to suppress information. This finding underscores the value of institutional ecosystems that can withstand political pressure and maintain ethical commitment to truth-telling.

## 7 CONCLUSIONS AND FUTURE WORK

This study documents the transformation of economic structures in Palestine from an extractive occupation economy to a system of intentional deprivation between 2023 and 2025. The mixed-methods analysis demonstrates how economic metrics and corporate activities align with patterns of structural violence that dismantle Palestinian life-support systems. The research establishes that quantitative convergence across United Nations agencies creates epistemic credibility despite political suppression of humanitarian data. The alignment between GDP collapse, unemployment rates, infrastructure damage, and famine conditions provides empirical evidence for the transformation from occupation to mechanisms of genocidal intent.

The qualitative approach contributes to ethical documentation by preserving institutional testimony and field experiences that counter official narratives. This methodology enables understanding of how moral witnessing functions in contexts of information suppression and data criminalization. The integration of economic analysis with communication frameworks provides tools for documenting

structural violence that withstands political challenges to credibility. This approach supports narrative preservation and dialogue in policy and education by centering Palestinian experiences within international human rights discourse.

The study acknowledges significant methodological limitations that constrain causal interpretation and generalizability of findings. Dependence on institutional reporting, inability to control for confounding variables, and restricted access to primary data sources represent important constraints that future research should address. However, the systematic triangulation of multiple data sources and methodological approaches provides a robust foundation for documenting patterns of structural transformation despite these limitations.

Future research should explore several promising directions emerging from this study. Investigation of corporate supply chain mechanisms could examine financial flows, ownership structures, and regulatory frameworks that enable business continuity in conflict settings. Methodological development should incorporate satellite imagery analysis, transaction-level economic data, and community-based monitoring to complement institutional reporting. Cross-cultural comparative analysis could examine how economic evidence translates into legal recognition across different jurisdictional contexts. Studies in conflict medicine might investigate the relationship between economic collapse and health outcomes in populations experiencing systematic deprivation. Humanitarian response research could develop models for reconstruction that address underlying structural violence while transforming economic systems from instruments of harm to foundations for sustainable development.

Future research should explore the mechanisms through which corporate supply chains sustain systems of control and deprivation in conflict settings. Investigation of financial flows, ownership structures, and regulatory frameworks could enhance accountability mechanisms for corporate complicity. Additional directions include the integration of satellite imagery analysis with community-based monitoring to provide verification of documented patterns. Research in cross-cultural understanding could examine how economic evidence translates into legal recognition of human rights violations across different jurisdictional contexts. Studies in conflict medicine might investigate the relationship between economic collapse and health outcomes in populations experiencing systematic deprivation. Humanitarian response research could develop models for reconstruction that address underlying structural violence while transforming economic systems from instruments of harm to foundations for development.

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