House Damage Technical Assessment Report

Project Funded By

Global **Shelter Cluster**

Taiz Gov

Sept/Oct 2024

Implementer: Nahda Makers

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1. Executive Summary

1.1 Findings from the House Damage Assessment:

This report evaluates the damage to residential houses in **Taiz**, **Yemen**, resulting from the ongoing civil conflict. A total of 3,785 houses were assessed, revealing the following distribution of damage:

Damage Category	Number of Houses	Percentage (Salah)	Percentage (Saber Al Mawadim)
Slight or No Damage	898	15%	42%
Minor Damage (Partial)	2,293	66%	49%
Major Damage (Partial)	338	10%	6%
Severe Damage	139	5%	2%
Fully Destroyed	117	4%	1%

Table 1.1-1

The average rehabilitation costs vary by damage level: **Minor Damage (Partial)** averages $2,417.41, **Major Damage (Partial)** costs approximately $4,457.18, and **Severe Damage** averages $6,383.94.

Given that the majority of the evaluated houses fall under the "**Minor Damage (Partial)**" category, this report recommends prioritizing the rehabilitation of these structures to facilitate faster recovery and reintegration of affected households. Additionally, it emphasizes the need for enhanced support mechanisms for returnees and other households impacted by the conflict, which may include financial aid, housing assistance, and access to essential services.

Coordinated efforts with local authorities and stakeholders are crucial for accurate data collection and the effective implementation of recovery interventions.

This summary serves to inform stakeholders about the urgent housing crisis in **Taiz** and to guide strategic recovery efforts that could significantly impact community resilience and stability.

1.2 Findings from Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs):

The qualitative insights gathered from KIIs and FGDs revealed significant challenges faced by the affected communities, including:

- **Housing Shortages**: Many families reported a lack of available housing options, exacerbating the displacement crisis.

- **Rehabilitation Needs**: Participants highlighted the urgent need for rehabilitation support, particularly for houses categorized as Minor Damage (Partial).
- **Access to Services**: There were concerns regarding limited access to essential services such as healthcare and education, which are critical for community recovery.
- **Community Resilience**: The discussions underscored the importance of community engagement in recovery efforts, emphasizing that local knowledge and participation are vital for effective interventions.

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2. Damage Houses Background in Taiz:

Taiz, a historically significant city in **Yemen**, has experienced **Severe Damage** to its residential infrastructure due to the ongoing civil conflict. Since the escalation of violence, characterized by relentless shelling, airstrikes, and ground battles, the destruction of housing has been extensive, with many structures completely destroyed or partially compromised. Recent estimates indicate that thousands of residents have been displaced, fleeing their houses in search of safety, which has led to overcrowded living conditions and reliance on temporary shelters in makeshift camps.

The consequences of this destruction extend beyond immediate individual suffering, severely disrupting the social and economic fabric of **Taiz**. Families have been uprooted, resulting in fragmented communities and devastated livelihoods. The ongoing instability has exacerbated vulnerability among the displaced population, leading to increased rates of poverty, food insecurity, and limited access to essential services.

In response to this humanitarian crisis, the **Shelter Cluster**, which coordinates shelter and non-food item (NFI) assistance in **Yemen**, has been actively engaged in mitigating the impact of the conflict on affected populations. This multi-agency partnership includes local and international NGOs, UN agencies, and governmental bodies, all working towards providing urgent shelter support and reconstruction efforts. The **Shelter Cluster's** initiatives in **Taiz** focus on identifying vulnerable families, distributing emergency shelter kits, and facilitating rehabilitation programs for damaged houses.

As returnees and affected households strive to rebuild their lives, the urgent need for housing assistance and reconstruction efforts has become critical. The **Shelter Cluster's** efforts aim not only to provide immediate relief through temporary shelters and assistance but also to implement sustainable solutions that enhance the resilience of communities. By collaborating with local authorities and stakeholders, the **Shelter Cluster** works to develop strategies that promote safe and durable housing solutions, while also addressing the broader needs of the displaced population.

This situation underscores the necessity for comprehensive assessments to accurately determine the extent of the damage, evaluate the specific needs of affected populations, and guide effective recovery interventions. The coordinated response of the **Shelter Cluster** and other humanitarian actors is essential for supporting the rehabilitation of housing and the overall recovery of **Taiz**, helping families rebuild their lives in the face of ongoing instability.

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3. Assessment Methodology:

3.1 Objective

The primary objective of this assessment is to systematically evaluate the extent of damage to residential properties across various districts in **Taiz**, **Yemen**. The assessment aims to categorize damage levels and identify specific needs for recovery and repair.

3.2 Assessment Areas

The assessment covers multiple districts and sub-districts, specifically:

- **Salah District**: **Salah Block**, **Al-Jahmaliah and Thuabat Block**, **Almuhafazah Block**, and **Bank Altaslif Block**.
- **Sabir Al Mawadim District**: **Al Mawadim sub-distirct**.

3.3 Data Collection

The assessment was conducted by **Nahda Makers Organization** (**NMO**), involving comprehensive field visits to 3,785 houses in the targeted areas of **Taiz**, as nominated by local authorities. The assessment team comprised nine engineers and six enumerators, ensuring thorough evaluation through necessary coordination with relevant stakeholders.

Data collection methods included:

- **General Information**: Assessment of household demographics, vulnerabilities, and housing, land, and property (**HLP**) issues.
- **Technical Information**: A comprehensive evaluation of each building's structural integrity, including the cause and extent of damage, vulnerability to future damage, and existing renovation efforts. This section outlines specific requirements for renovation and provides proposed Bills of Quantities (**BoQs**) for each targeted house.

3.4 Assessment tools

The assessment employed the following methodologies and tools to ensure comprehensive and accurate data collection:

Methodology	Purpose	Tool Used
Key Informant Interviews (KII)	Gather contextual and demographic insights from local leaders, community representatives, and stakeholders.	KII Template
Focus Group Discussions (FGD)	Facilitate discussions with community groups to understand collective challenges and recovery priorities.	FGD Template
Household Technical Assessment	Conduct direct evaluations of residential properties to determine structural damage and rehabilitation needs.	KOBO for Technical Assessments Template[i]

Table 3.4-1

This table clarifies the tools and methodologies used, ensuring transparency and alignment with best practices.

3.5 Damage Categories

The damage levels were categorized into five distinct categories:

- **Slight or No Damage**: Properties without significant damage or with minor issues such as hairline cracks.
- **Minor Damage (Partial)**: Properties with some level of damage that does not compromise structural integrity, such as minor cracks, shrapnel holes, or damaged frames.
- **Major Damage (Partial)**: Properties exhibiting substantial damage that may affect usability but remain structurally sound.
- **Severe Damage**: Properties that are heavily damaged, posing safety risks and requiring extensive repairs.
- **Fully Destroyed**: Properties that are beyond repair, necessitating complete reconstruction.

3.6 Sampling Method

A systematic sampling method was employed to ensure representation across different neighborhoods and property types within each district. Factors considered included geographic location, property age and type, and visible signs of damage. Specific criteria for selection included prioritizing areas with high levels of reported damage and varying socio-economic conditions.

3.7 Data Analysis

The data analysis involved quantitative methods, utilizing descriptive statistics to summarize the frequency of each damage category across the districts. The findings were compiled into a comprehensive report detailing the total number of assessed properties, a breakdown of damage levels by district, and tailored recommendations for recovery efforts based on the extent of damage observed.

3.8 Limitations

Limitations of the assessment include potential subjectivity in some evaluations due to reliance on self-reported data from householders and accessibility issues that may have hindered comprehensive assessments, leading to possible underreporting

of damage in certain properties. Specific accessibility challenges included ongoing security concerns and logistical constraints in reaching certain areas.

Overall, this methodology provides a structured approach to assessing house damage, facilitating an understanding of the impact on residential properties in the affected districts and supporting recovery planning and resource allocation for rebuilding efforts.

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4. Coordination with Relevant Stakeholders:

Nahda Makers Organization (**NMO**) has established comprehensive coordination with local authorities and the **Shelter Cluster** at various levels to ensure effective assessment and recovery efforts for housing damage in **Taiz**. This collaboration encompasses all phases of the project, facilitating a structured approach to address the urgent housing needs of affected communities.

4.1 Target District Selection

In consultation with **Shelter Cluster** representatives and local authorities, **NMO** identified the most severely affected districts for assessment. This selection process was based on the latest available data and the specific needs of the community, ensuring that the focus was placed on areas with the greatest demand for intervention.

4.2 Preparation of Tools

NMO developed a tailored assessment template using **KOBO**, designed to gather detailed information on damage levels and calculate Bills of Quantities (**BoQs**). This tool was shared with stakeholders to ensure alignment and solicit input for any necessary adjustments, fostering a collaborative development process.

4.3 Training of NMO Field Team

A comprehensive training session was organized for the **NMO** field team, where participants received guidance on the assessment methodology, utilization of the **KOBO** tool, and best practices for data collection. This training was conducted with input from **Shelter Cluster** experts to ensure consistency, relevance, and adherence to best practices in the field.

4.4 Workshops with Local Authorities

NMO facilitated interactive workshops with representatives from local councils and Shelter Cluster focal points. During these workshops, the assessment process was clarified, and local authorities committed to providing comprehensive lists of damaged houses, including pertinent information on property ownership, damage levels, and precise locations.

4.5 Conducting Assessments at the House Level

Throughout the assessment process, **NMO** maintained ongoing coordination with local authorities to streamline data collection. Requests for lists of damaged houses were made in parallel with assessments, enabling **NMO** teams to initiate evaluations promptly while local authorities continued to update their records. This parallel approach significantly reduced delays and ensured that the assessment was comprehensive and accurate.

This structured coordination approach has been crucial in preventing delays and ensuring that assessments were conducted efficiently. By involving stakeholders at every phase of the project, **NMO** has cultivated a collaborative environment that enhances the effectiveness of recovery strategies and ensures that the needs of affected communities in **Taiz** are prioritized.

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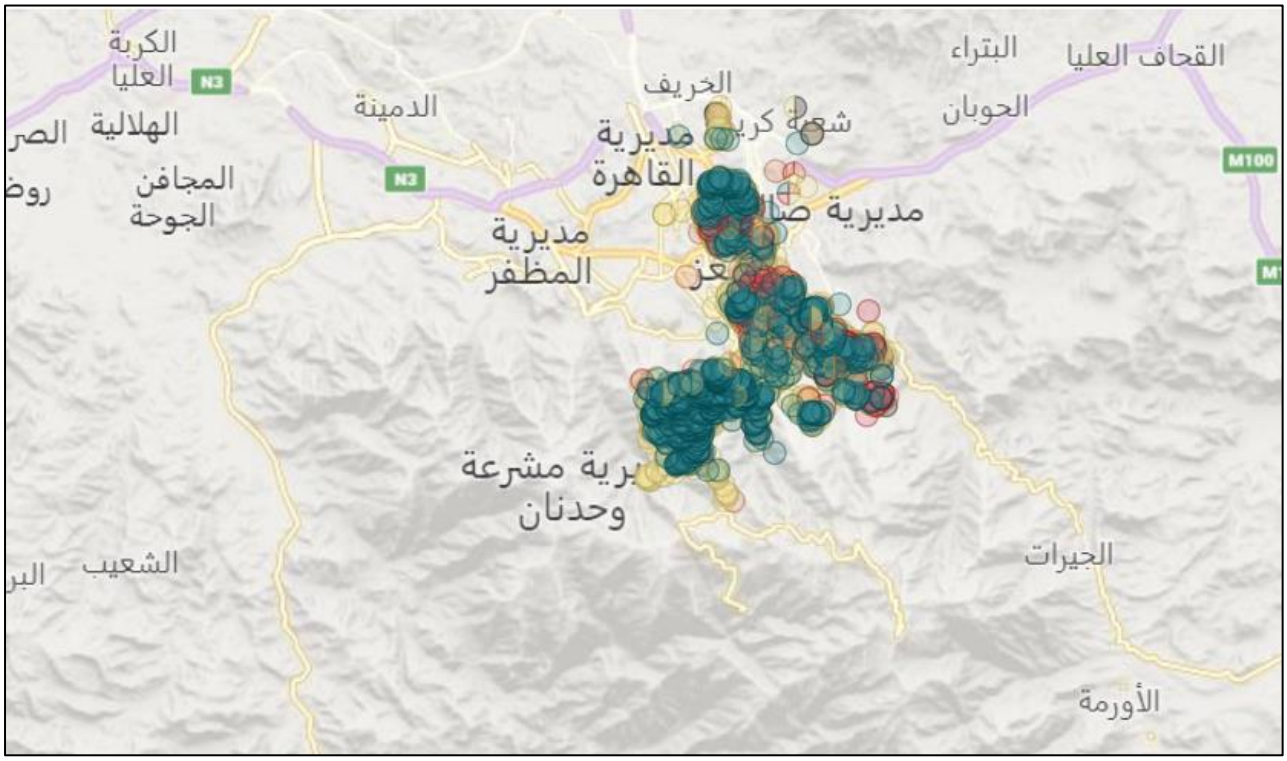
5. Houses Location (GIS Layout)

The assessment of housing damage in **Taiz** has been visually represented using a Geographic Information System (GIS) layout, which effectively maps the locations of damaged houses across the affected districts. The GIS layout provides a comprehensive

overview of the damage classification for each property, distinguishing between categories of **Slight or No Damage**, **Minor Damage (Partial)**, **Major Damage (Partial)**, **Severe Damage**, and **Fully Destroyed** houses.



Map 5-1

This geospatial visualization serves as a critical tool for stakeholders, enabling them to understand the distribution of damage and prioritize recovery efforts more effectively. The map includes detailed features such as a key that categorizes the extent of damage, a scale for spatial reference, and key markers for easy identification of affected areas.

By employing GIS technology, stakeholders can conduct spatial analysis to identify patterns in damage distribution, facilitating informed decision-making for resource allocation and intervention strategies. The attached map above offers an in-depth view of the damaged houses' locations in **Taiz**, guiding future recovery planning and community support initiatives.

GIS link here

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6. Assessment Summary:

This section summarizes the detailed findings from the household assessment, covering critical aspects related to:

Demographics Information for the Household, Specific Information for Vulnerabilities, Information about the **HLP** Housing, Land and Property, General information about the House, Damage Information and Rehabilitation Required.

6.1 Demographics Information for the Household.

6.1.1 Interview Participants for Assessed Damage

The graph below illustrates the distribution of interview participants across various damage categories for residential houses in **Taiz**. Each bar represents the number of participants reporting damage levels.

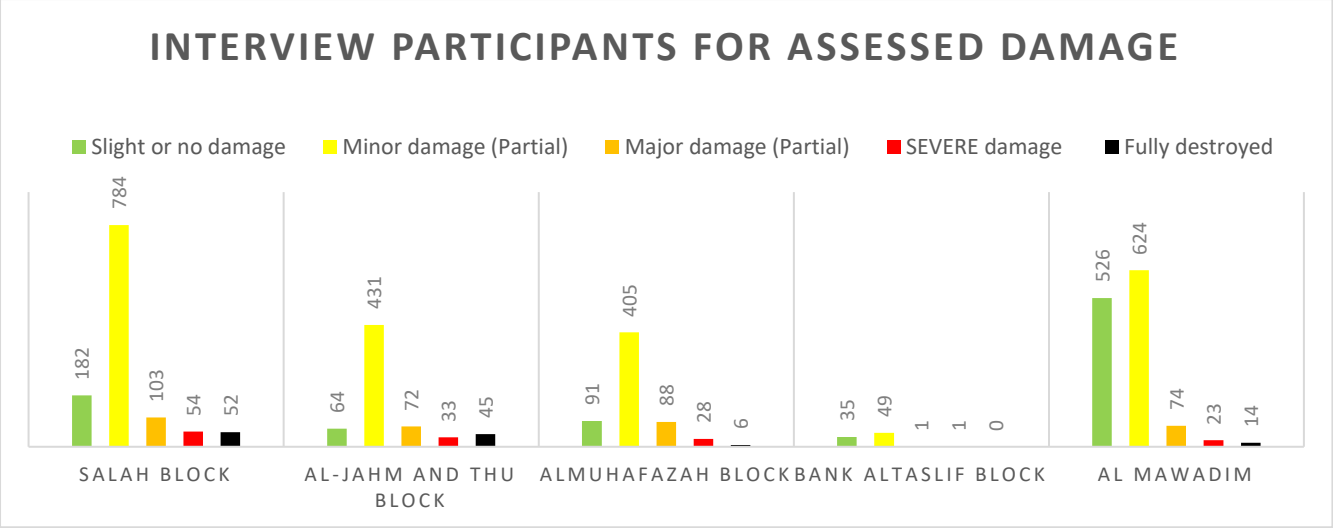


Chart 6-1

Overview of House Damage Across Different Districts:

- **Salah District:**
  - **Salah Block**:
    - Highest participation with 1,175 interviewees.
    - Significant concentration of **Minor Damage (Partial)**: 784 cases.
    - Notable **Severe Damage** and total destruction: 106 combined cases.
  - **Al-Jahmaliah and Thuabat Block & Almuhafazah Block**:
    - Similar pattern; predominance of **Minor Damage (Partial)**.
    - **Almuhafazah Block** has slightly more **Major Damage (Partial)** cases.
  - **Bank Altaslif Block**:
    - Least damage overall; majority experience **Slight or No Damage**.
- **Sabir Al Mawadim District:**
  - **Al Mawadim Block**:
    - Largest participation at 1,261 interviewees.
    - Substantial **Minor Damage (Partial)**; fewer instances of severe or complete destruction compared to **Salah**.

Overall Findings:

Minor Damage (Partial) is the most common category across all areas; complete destruction, though relatively rare, is significant in **Salah Block**.

6.1.2 Gender Distribution of Household Heads

The graph below illustrates the gender distribution of household heads affected by varying levels of house damage in **Taiz**. Each bar represents the number of male and female heads of households across different damage categories.

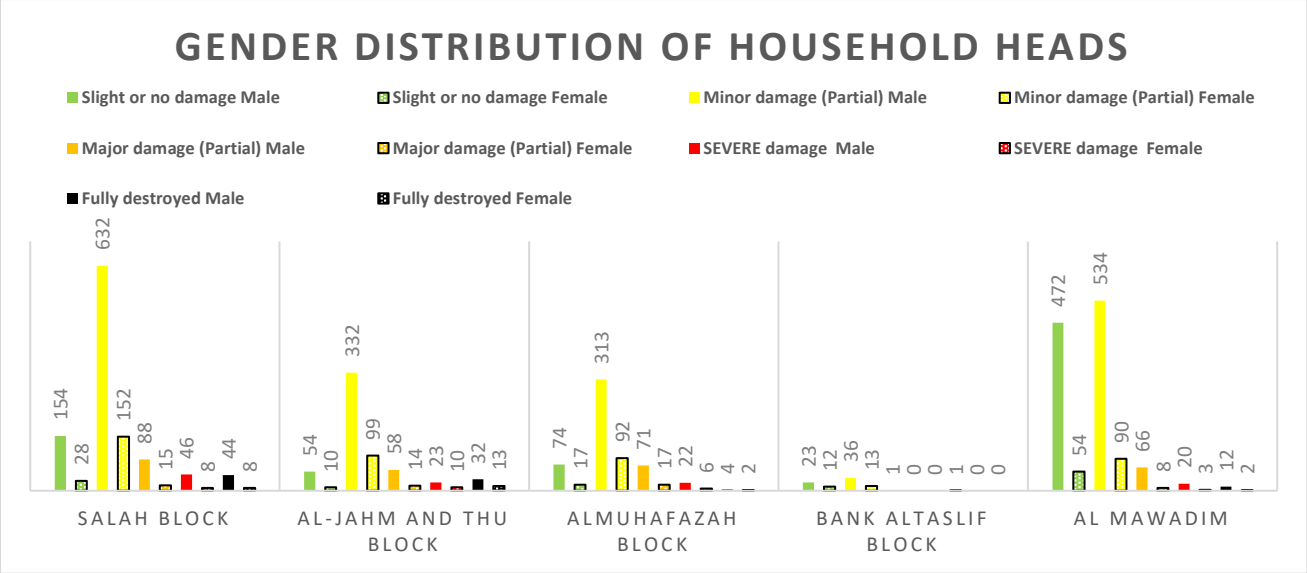


Chart 6-2

Overview of Gender Distribution by District:

- **Salah District:**
  - **Salah Block**:
    - 964 male-headed households vs. 211 female-headed households across all damage categories.
    - Male-headed households predominantly affected by **Minor Damage (Partial)**.
  - **Al-Jahmaliah and Thuabat Block & Almuhafazah Block**:
    - Male heads significantly outnumber female heads, especially in minor and partial **Major Damage (Partial)** cases.
  - **Bank Altaslif Block**:
    - Minimal damage with a low presence of female heads.
- **Sabir Al Mawadim District:**
  - **Al Mawadim Block**:
    - Consistent trend with a majority of male-headed households (1,104) experiencing **Minor Damage (Partial)**.

Overall Findings:

Male-headed households dominate all categories; female-headed households are fewer, particularly in **Severe Damage** and total destruction cases.

6.1.3 Marital Status of Household Head

The graph below illustrates the marital status of household heads affected by house damage in **Taiz**. Each bar represents the number of household heads categorized as single, widowed, divorced, or married across different blocks.

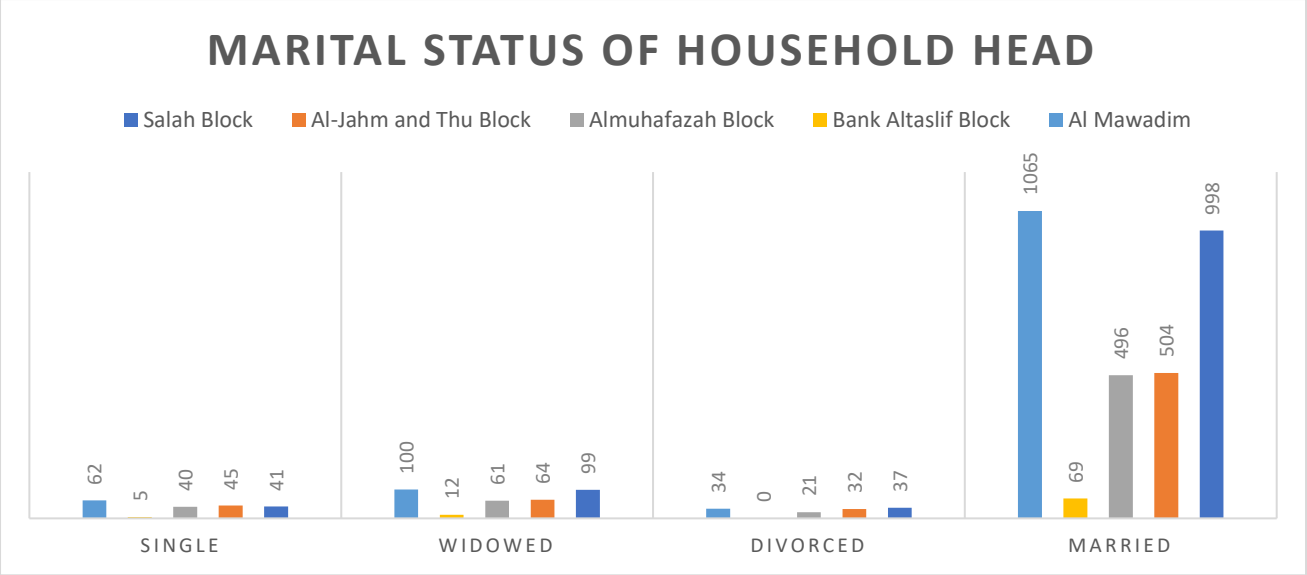


Chart 6-3

Overview of Marital Status by District:

- **Salah District:**
  - Majority of affected individuals are married, particularly in **Salah Block**.
  - Married individuals dominate in **Al-Jahmaliah and Thuabat Block** and **Almuhafazah Block**.
  - **Bank Altaslif Block**: Minimal damage across all marital statuses.
- **Sabir Al Mawadim District:**
  - **Al Mawadim Block**: Married individuals form the largest group, primarily experiencing slight or **Minor Damage (Partial)**.

Overall Findings:

Married individuals represent the largest demographic impacted by house damage; **Severe Damage** and total destruction are less common among all groups.

6.1.4 ID Types Held by Heads of Households

The following graphs illustrate the types of identification (ID) held by heads of households across different damage levels in **Taiz**. The first graph shows the overall distribution of ID types for various blocks, while the second graph provides a detailed segregation of the different types of IDs held by household heads.

Overall ID Ownership by Damage Categories:

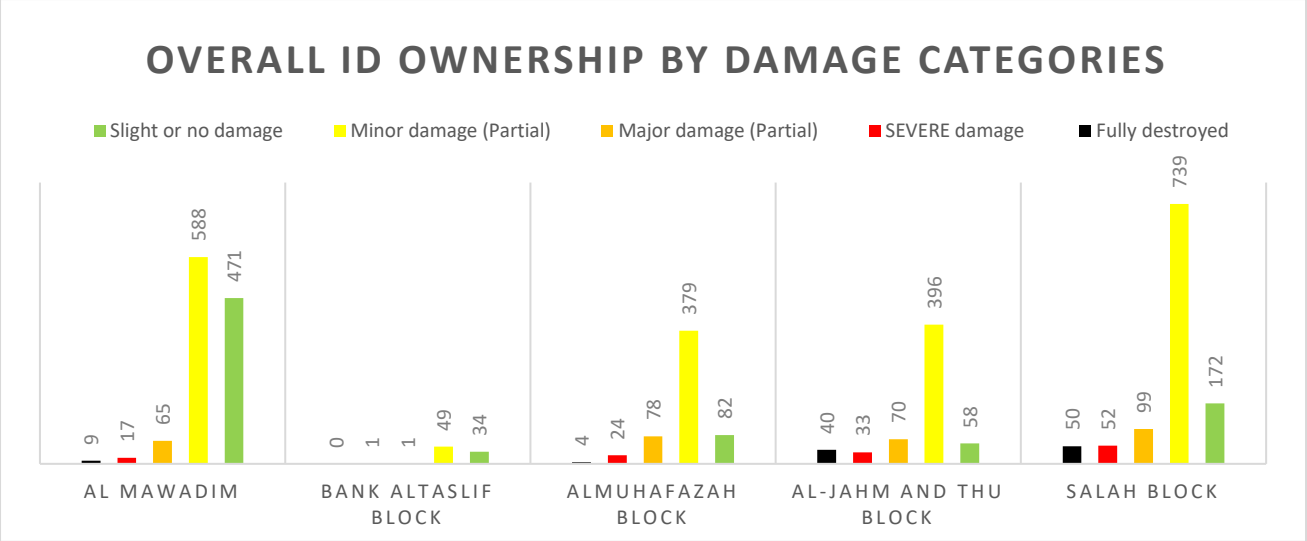


Chart 6-4

Overall Ownership who don't have ID by Damage Categories:

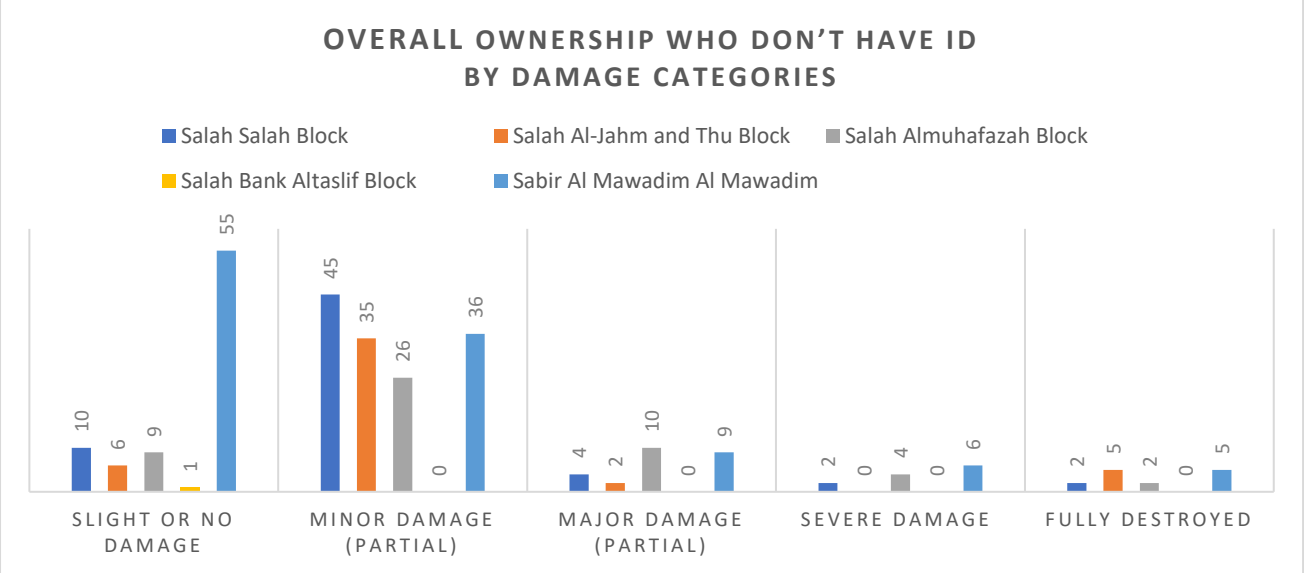
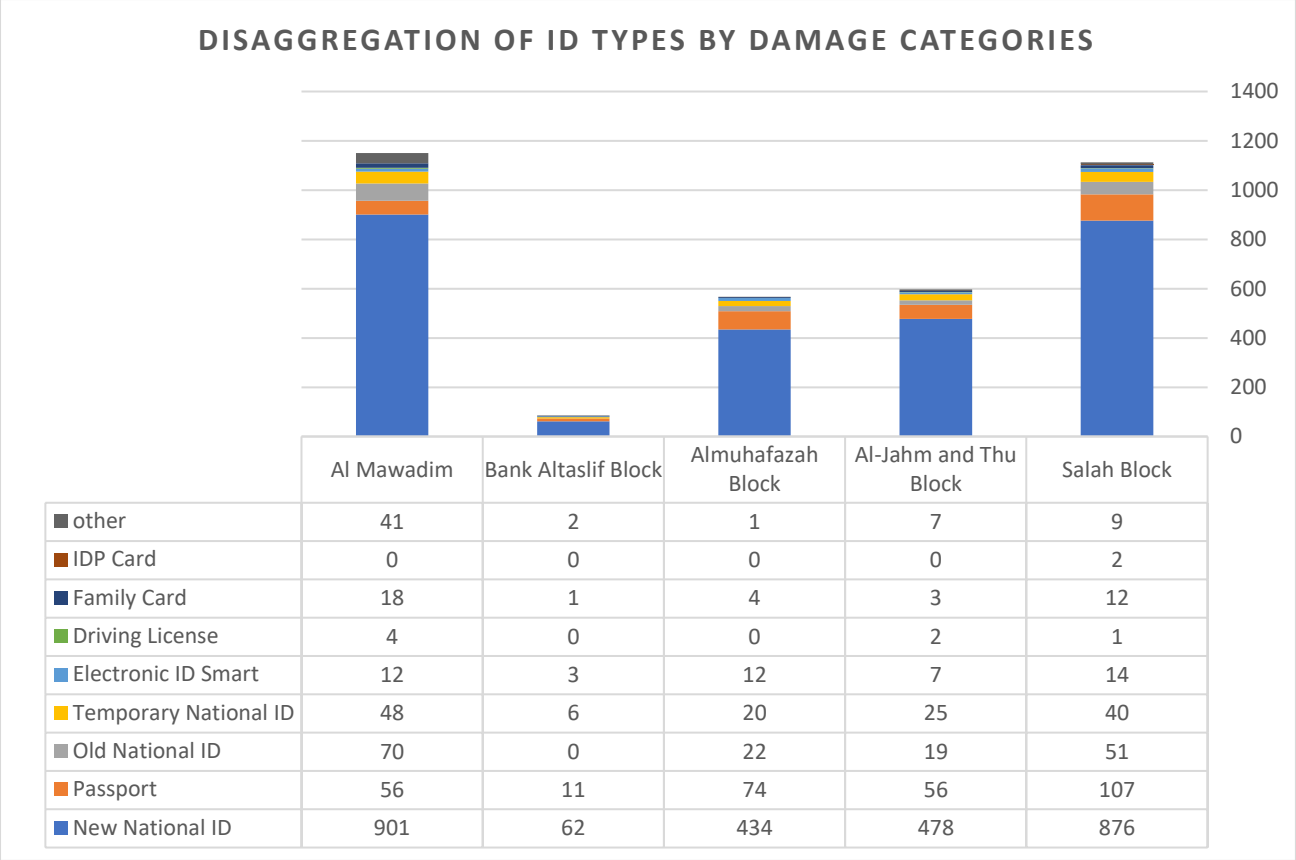


Chart 6-5

Disaggregation of ID Types by Damage Categories:



	Al Mawadim	Bank Altaslif Block	Almuhafazah Block	Al-Jahm and Thu Block	Salah Block
other	41	2	1	7	9
IDP Card	0	0	0	0	2
Family Card	18	1	4	3	12
Driving License	4	0	0	2	1
Electronic ID Smart	12	3	12	7	14
Temporary National ID	48	6	20	25	40
Old National ID	70	0	22	19	51
Passport	56	11	74	56	107
New National ID	901	62	434	478	876

Chart 6-6

Overview of ID Types by Block:

Households with IDs:

- **New National ID is the most prevalent form of identification, consistently held across all districts and damage levels.**
- **Passports and Old National IDs are significantly less common, with limited availability in districts like Almuhafazah and Bank Altaslif, and often absent in higher damage categories.**

Households without IDs:

- **A total of 205 households lack any form of identification across all districts and damage levels.**
- **The highest number is in Sabir Al Mawadim Block (109 households), followed by Salah Block (67 households).**
- **Households without IDs are more prominent in the Minor Damage (Partial) category (109 households) and Major Damage (Partial) category (41 households).**
- **Categories such as Severe Damage and Fully Destroyed have lower numbers (16 and 15 households respectively).**

Segregation of ID Types:

- **Among households with IDs:**
- **New National ID is held by the majority across all damage levels and districts, indicating its reliability as the primary identification type.**
- **Passports and Old National IDs are rare and mostly observed in households with lower levels of damage.**

Overall Findings:

1. **General ID Ownership**:

- The majority of households have at least one form of ID, which is critical for accessing aid and recovery programs.

- However, gaps remain, especially in districts like **Sabir Al Mawadim Block**, where ID ownership is significantly lower.

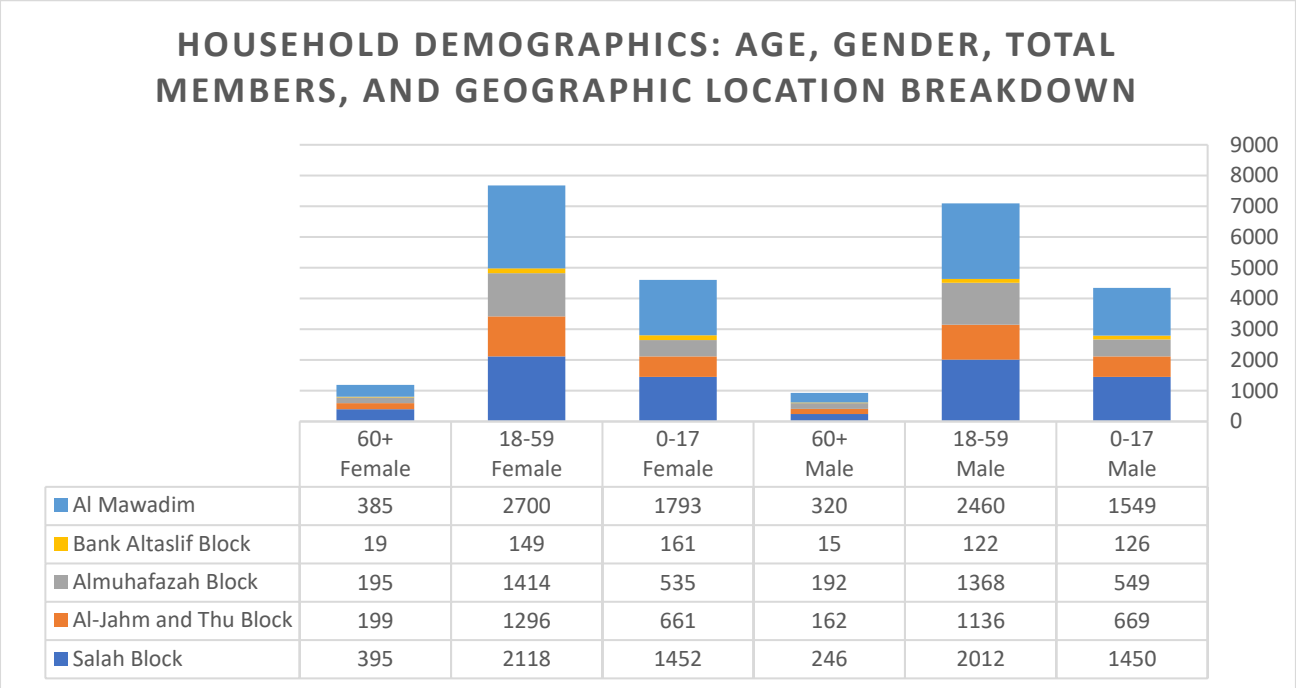
2. **Households without IDs**:
   - A significant number of households lack IDs, particularly in blocks with **Minor Damage (Partial)** and **Major Damage (Partial)**. This lack of documentation could impede access to aid and reconstruction efforts.
3. **Segregation by ID Type**:
   - **New National ID** remains the dominant form of identification, making it a reliable reference point for program planning.
   - The limited presence of Passports and Old National IDs reflects potential gaps in the diversity of documentation, which may limit certain populations' access to specific services or programs.

Priority Interventions:

- Districts and damage levels with high proportions of households lacking IDs (e.g., **Sabir Al Mawadim Block**) should be prioritized for initiatives that facilitate ID issuance or recovery.

6.1.5 Household Demographics: Age, Gender, Total Members, and Geographic Location Breakdown

The graph below illustrates the demographics of households affected by damage in **Taiz**, highlighting the age, gender, and total members across different blocks. Each bar segment represents specific age and gender categories, providing insights into the population structure in the assessed areas.



	60+ Female	18-59 Female	0-17 Female	60+ Male	18-59 Male	0-17 Male
Al Mawadim	385	2700	1793	320	2460	1549
Bank Altaslif Block	19	149	161	15	122	126
Almuhafazah Block	195	1414	535	192	1368	549
Al-Jahm and Thu Block	199	1296	661	162	1136	669
Salah Block	395	2118	1452	246	2012	1450

Chart 6-7

General Findings:

- Majority population (6,687 individuals) resides in areas with **Slight or No Damage**, primarily aged 18-59.
- **Minor Damage (Partial)** affects 15,269 individuals, mostly within the 18-59 age group.
- **Major Damage (Partial)** impacts 2,252 individuals, again predominantly within the 18-59 age group.
- **Severe Damage** affects 949 individuals, with the largest groups being males and females aged 18-59.
- **Fully Destroyed** category impacts 691 individuals, with a similar age pattern.

Overall Findings:

While the majority experience lower levels of damage, a significant portion still faces severe impacts, particularly within the working-age population. This data highlights the urgent need for targeted recovery and rehabilitation efforts to support these demographics.

6.2 Specific Information for Vulnerabilities:

The graph below illustrates the vulnerabilities identified among households affected by damage in **Taiz**. Each bar segment represents different categories of vulnerabilities, providing insights into the specific needs of households across various blocks.

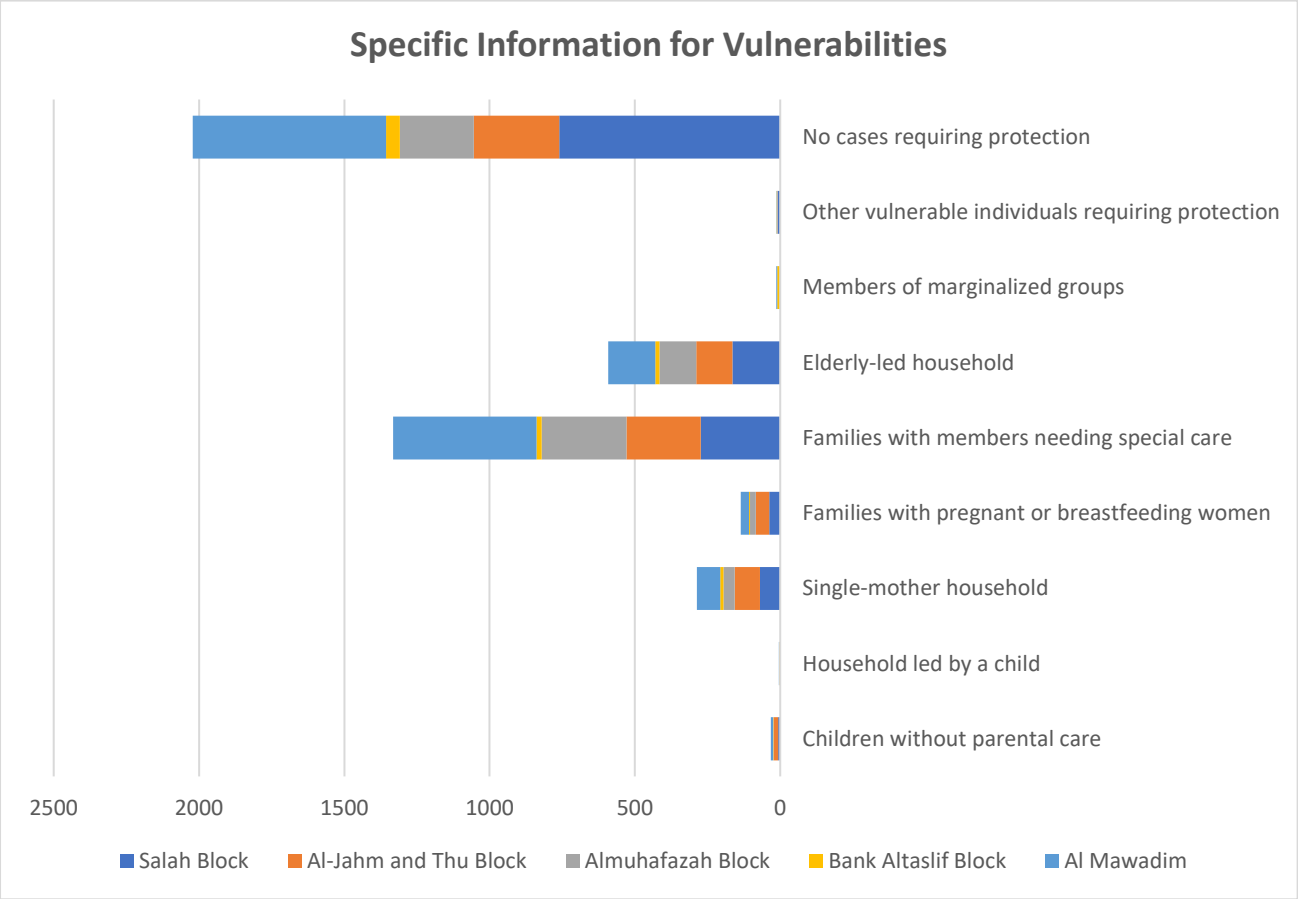


Chart 6-8

Overview of Vulnerabilities by Blocks:

- **Salah District**:
  - **Salah Block**:
    - **Slight or No Damage**: 121 households report no vulnerabilities; key vulnerabilities include 43 households with members who have disabilities or chronic illnesses and 19 elderly-headed households.
    - **Minor Damage (Partial)**: 507 households report no vulnerabilities; significant vulnerabilities include 178 households with disabilities and 111 elderly-headed households.
    - **Major Damage (Partial)**: 68 households report no vulnerabilities; there are 23 households with disabilities.
    - **Severe Damage**: 37 households report no vulnerabilities, with primary vulnerabilities involving households with disabilities or chronic illnesses and elderly members.
    - **Fully Destroyed**: 27 households without vulnerabilities; main vulnerabilities involve households with disabilities or chronic illnesses.
  - **Al-Jahmaliah and Thuabat Block**:
    - **Slight or No Damage**: 31 households report no vulnerabilities, while 31 households have members with disabilities or chronic illnesses.

        - **Minor Damage (Partial)**: 176 households report no vulnerabilities; significant vulnerabilities include 188 households with disabilities and 92 elderly-headed households.
        - **Major Damage (Partial)**: 46 households report no vulnerabilities; 19 households have members with disabilities.
        - **Severe Damage** and **Fully Destroyed** levels show minimal cases, with notable presence of disabilities or chronic illness vulnerabilities.
    - **Almuhafazah Block**:
        - **Slight or No Damage**: 32 households report no vulnerabilities, while 49 households have members with disabilities or chronic illnesses.
        - **Minor Damage (Partial)**: 178 households report no vulnerabilities; 177 households are affected by disabilities.
        - **Major Damage (Partial)**: 38 households report no vulnerabilities; 43 households report disabilities.
        - **Severe Damage** and **Fully Destroyed** levels have minimal cases, primarily involving households with disabilities.
    - **Bank Altaslif Block**:
        - **Slight or No Damage**: 21 households report no vulnerabilities; 9 households are affected by disabilities.
        - **Minor Damage (Partial)**: 26 households report no vulnerabilities; 8 households are affected by disabilities.
        - **Major Damage (Partial)** and higher levels show minimal cases of vulnerabilities.
- **Sabir Al Mawadim District**:
    - **Al Mawadim Block**:
        - **Slight or No Damage**: 277 households report no vulnerabilities; significant vulnerabilities include 210 households with disabilities and 76 elderly-headed households.
        - **Minor Damage (Partial)**: 325 households have no vulnerabilities; 249 households report disabilities, and 73 are elderly-headed households.
        - **Major Damage (Partial)**: 45 households report no vulnerabilities; 20 households have disabilities and 6 are elderly-headed.
        - **Severe Damage**: 11 households report no vulnerabilities; 9 households have disabilities.
        - **Fully Destroyed**: 8 households report no vulnerabilities; 5 households have disabilities and 1 is elderly-headed.

Overall Findings:

- The most common vulnerabilities identified across both districts are households with members who have disabilities or chronic illnesses and elderly-headed households.
- These vulnerabilities are especially prevalent in areas with **Slight or No Damage** and **Minor Damage (Partial)**, indicating that a significant proportion of the population faces challenges even in less severely affected areas.
- While the **Severe Damage** and **Fully Destroyed** categories show fewer cases, they continue to impact households with these vulnerabilities.
- There is a consistent need for targeted support for vulnerable groups across both districts, particularly focusing on those with disabilities and elderly-headed households.

6.3 Information about the HLP "Housing, Land and Property":

6.3.1 Availability of House Owners:

The graph below illustrates the availability of house owners across different damage levels in **Salah** and **Sabir Al Mawadim** districts. Each bar represents the number of house owners present in various damage categories, providing insights into property ownership and the impact of damage on housing availability.

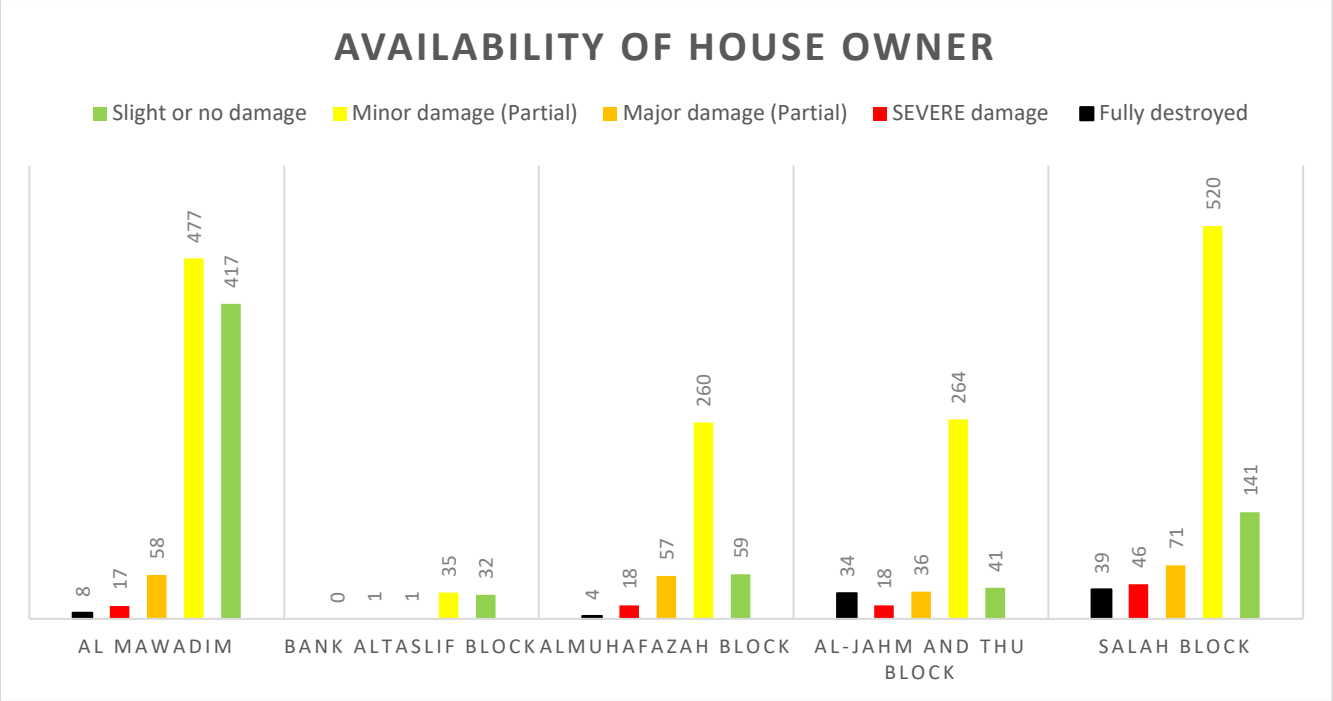


Chart 6-9

Overview of House Owner Availability by Block:

- **Salah District**:
  - **Salah Block**:
    - Slight or No Damage: 141 out of 182 houses (77% availability).
    - Minor Damage (Partial): 520 out of 784 houses (66% availability).
    - Major Damage (Partial): 71 out of 338 houses (21% availability).
    - Severe Damage: 46 out of 139 houses (33% availability).
    - Fully Destroyed: 39 out of 117 houses (33% availability).
  - **Al-Jahmaliah and Thuabat Block**:
    - Slight or No Damage: 41 out of 64 houses (64% availability).
    - Minor Damage (Partial): 264 out of 431 houses (61% availability).
    - Major Damage (Partial): 36 out of 106 houses (34% availability).
    - Severe Damage: 18 out of 33 houses (55% availability).
    - Fully Destroyed: 34 out of 58 houses (59% availability).
  - **Almuhafazah Block**:
    - Slight or No Damage: 59 out of 91 houses (65% availability).
    - Minor Damage (Partial): 260 out of 405 houses (64% availability).
    - Major Damage (Partial): 57 out of 83 houses (69% availability).
    - Severe Damage: 18 out of 26 houses (69% availability).
    - Fully Destroyed: 4 out of 17 houses (24% availability).
  - **Bank Altaslif Block**:
    - Slight or No Damage: 32 out of 35 houses (91% availability).
    - Minor Damage (Partial): 35 out of 49 houses (71% availability).
    - Major Damage (Partial): 1 out of 7 houses (14% availability).
    - Severe Damage: 1 out of 6 houses (17% availability).
    - Fully Destroyed: 0 out of 3 houses (0% availability).
- **Sabir Al Mawadim District**:
  - **Al Mawadim Block**:
    - Slight or No Damage: 417 out of 526 houses (79% availability).
    - Minor Damage (Partial): 477 out of 624 houses (76% availability).
    - Major Damage (Partial): 58 out of 125 houses (46% availability).

- Severe Damage: 17 out of 35 houses (49% availability).
- Fully Destroyed: 8 out of 14 houses (57% availability).

Overall, The availability of house owners is highest in Slight or No Damage and Minor Damage (Partial) categories, ranging from 61% to 91% across all blocks.

Availability drops significantly in Major Damage (Partial) (14–69%) and Severe Damage categories (17–69%), with the lowest ratios in Fully Destroyed houses (0–57%).

6.3.2 Reason for Absence:

The following graph depicts the reasons for the absence of house owners across different blocks in the **Salah** and **Sabir Al Mawadim** districts, focusing on factors such as deceased individuals, residents living outside the city, and those temporarily away for travel or care.

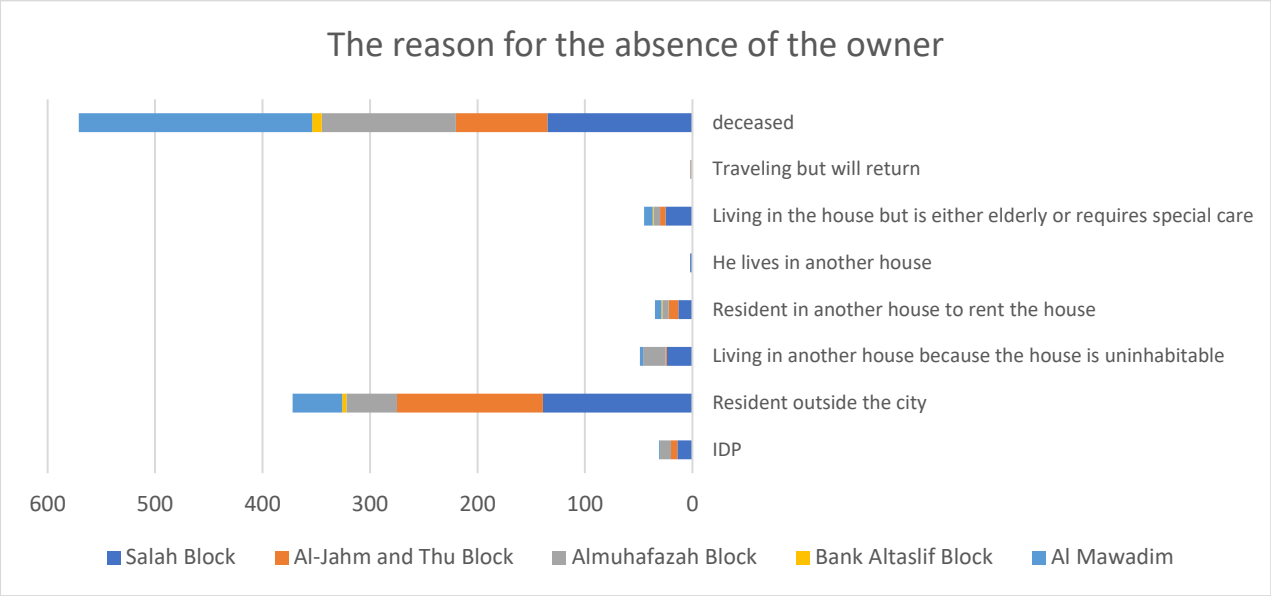


Chart 6-10

Overview of the reason for the absence of the owner by Block:

- **Salah Block**:
  - In **Slight or No Damage**, primary reasons for absence include residents living outside the city (21) and deceased individuals (8). In **Minor Damage (Partial)**, the most common reasons are residents living outside the city (101) and deceased individuals (102).
  - **Major Damage (Partial)** has fewer absences, with residents outside the city (14) and deceased individuals (15). **Severe Damage** records minimal cases, primarily due to deceased individuals (6), while **Fully Destroyed** areas also show low numbers, mainly involving deceased individuals (4).
- **Al-Jahmaliah and Thuabat Block**:
  - In **Slight or No Damage**, the most common reasons for absence are residents living outside the city (14) and deceased individuals (7). In **Minor Damage (Partial)**, notable reasons include residents living outside the city (86) and deceased individuals (60).
  - Similar trends continue in **Major Damage (Partial)**, with 23 residents outside the city and 8 deceased individuals noted. **Severe Damage** and **Fully Destroyed** levels show minimal cases, primarily involving residents living outside the city and deceased individuals.
- **Almuhafazah Block**:
  - Shows lower numbers in **Slight or No Damage**, with residents living outside the city (5) and deceased individuals (19). In **Minor Damage (Partial)**, deceased individuals (86) and residents living outside the city (33) are significant.

- **Major Damage (Partial)** includes 8 residents outside the city and 15 deceased individuals. **Severe Damage** and **Fully Destroyed** categories have minimal cases, primarily with deceased individuals.

- **Bank Altaslif Block**:
  - Reports very low figures overall, with minimal absences in **Slight or No Damage** and **Minor Damage (Partial)**. Primary reasons for absence are deceased individuals (3 and 6, respectively), with higher damage categories showing no recorded data.
- **Al Mawadim Block**:
  - In **Slight or No Damage**, notable reasons for absence include deceased individuals (84) and residents living outside the city (17). In **Minor Damage (Partial)**, significant reasons are deceased individuals (114) and residents living outside the city (22).
  - **Major Damage (Partial)** shows fewer cases, with deceased individuals (10) being significant. **Severe Damage** and **Fully Destroyed** levels report minimal absences, primarily involving deceased individuals and a few residents living outside the city.

Overall, the most common reasons for the absence of house owners in both districts are residents living outside the city and deceased individuals, especially in the **Slight or No Damage** and **Minor Damage (Partial)** categories. As damage severity increases, the reasons for absence decrease, but deceased individuals remain a consistent factor.

6.3.3 Living Status:

The following graph illustrates the living status of individuals residing in houses across different blocks in **Salah** and **Sabir Al Mawadim** districts, highlighting categories such as unoccupied houses, family houses involve relatives staying rent-free, while tenants are renters with no familial ties and IDPs are displaced persons who may fall under multiple categories, depending on their arrangement with the house owner.

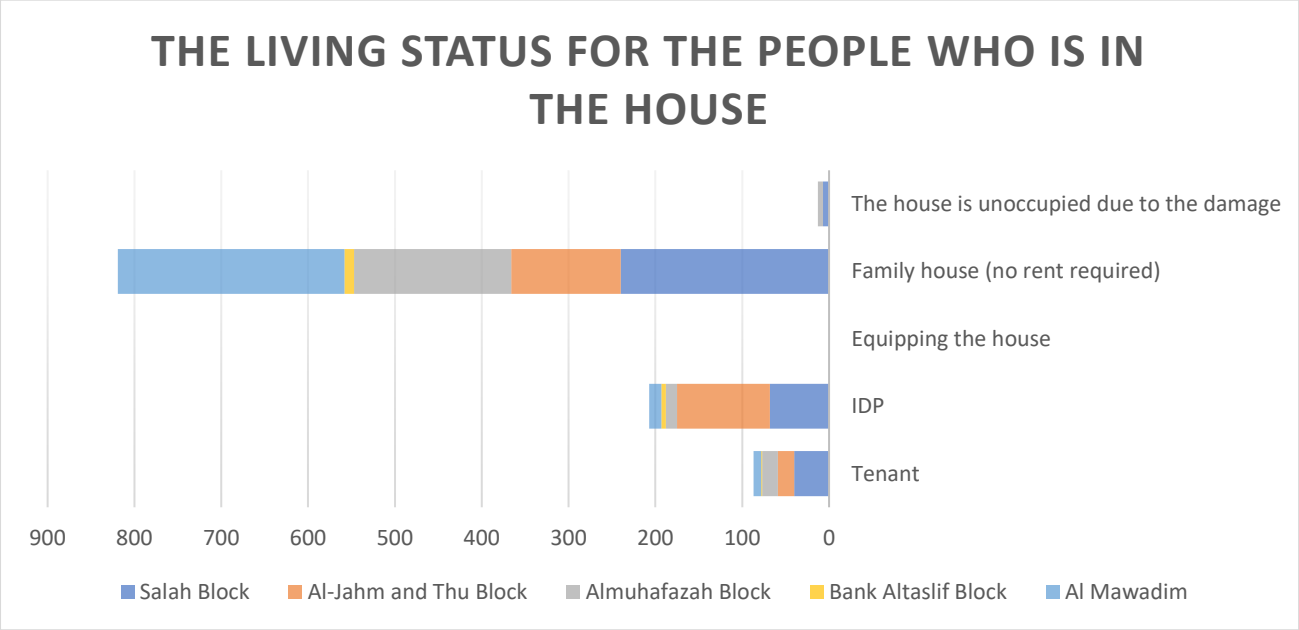


Chart 6-11

Overview of the living status by Block:

- **Salah Block**:
  - In **Slight or No Damage**, most residents live in family houses with no rent required (26), followed by tenants (7) and internally displaced persons (IDPs) (8). In **Minor Damage (Partial)**, family houses (180) are predominant, with notable numbers of IDPs (51) and tenants (29).
  - **Major Damage (Partial)** highlights 20 family houses and 8 IDPs, with few tenants (4). **Severe Damage** records minimal cases, with 7 IDPs noted. **Fully Destroyed** areas show very few cases, with 7 IDPs and 6 unoccupied houses due to damage.

- **Al-Jahmaliah and Thuabat Block**:
    - Shows a similar trend, with **Slight or No Damage** indicating 10 family houses as the most common arrangement, alongside 12 IDPs. In **Minor Damage (Partial)**, there are 87 family houses and 64 IDPs.
    - **Major Damage (Partial)** records 19 IDPs and 16 family houses. **Severe Damage** and **Fully Destroyed** categories have fewer cases, with minimal numbers of IDPs and unoccupied houses.
- **Almuhafazah Block**:
    - Indicates that in **Slight or No Damage**, there are 30 family houses as the dominant type. In **Minor Damage (Partial)**, 119 family houses and 8 IDPs are notable.
    - **Major Damage (Partial)** records 21 family houses and 4 IDPs, while **Severe Damage** and **Fully Destroyed** areas show almost no cases except for minimal IDPs and unoccupied houses.
- **Bank Altaslif Block**:
    - Shows low figures overall, with **Slight or No Damage** recording only 3 family houses. In **Minor Damage (Partial)**, there are 8 family houses and a few IDPs (5). Higher damage levels show no significant occupancy cases.
- **Al Mawadim Block**:
    - For **Slight or No Damage**, family houses are the most common (103), followed by tenants (4) and IDPs (2). In **Minor Damage (Partial)**, there are 134 family houses and 9 IDPs.
    - **Major Damage (Partial)** records minimal occupancy with 13 family houses and 2 IDPs. **Severe Damage** shows few cases, with 5 family houses and 1 IDP. **Fully Destroyed** areas are limited, with only a few unoccupied houses and IDPs noted.

Overall, family houses where no rent is required are the most common living arrangement across all damage levels, particularly in **Slight or No Damage** and **Minor Damage (Partial)** areas. The presence of IDPs is significant in **Minor Damage (Partial)** and **Major Damage (Partial)** levels, indicating ongoing challenges for displaced individuals. As the severity of damage increases, the number of family houses and IDPs remains present, while other forms of occupancy decrease.

6.3.4 Tenure Arrangement:

The following graph illustrates the various tenure arrangements for land and houses in the **Salah** and **Sabir Al Mawadim** districts, highlighting the prevalence of certified property ownership, lease contracts, and other forms of tenure, along with the differences among the blocks.

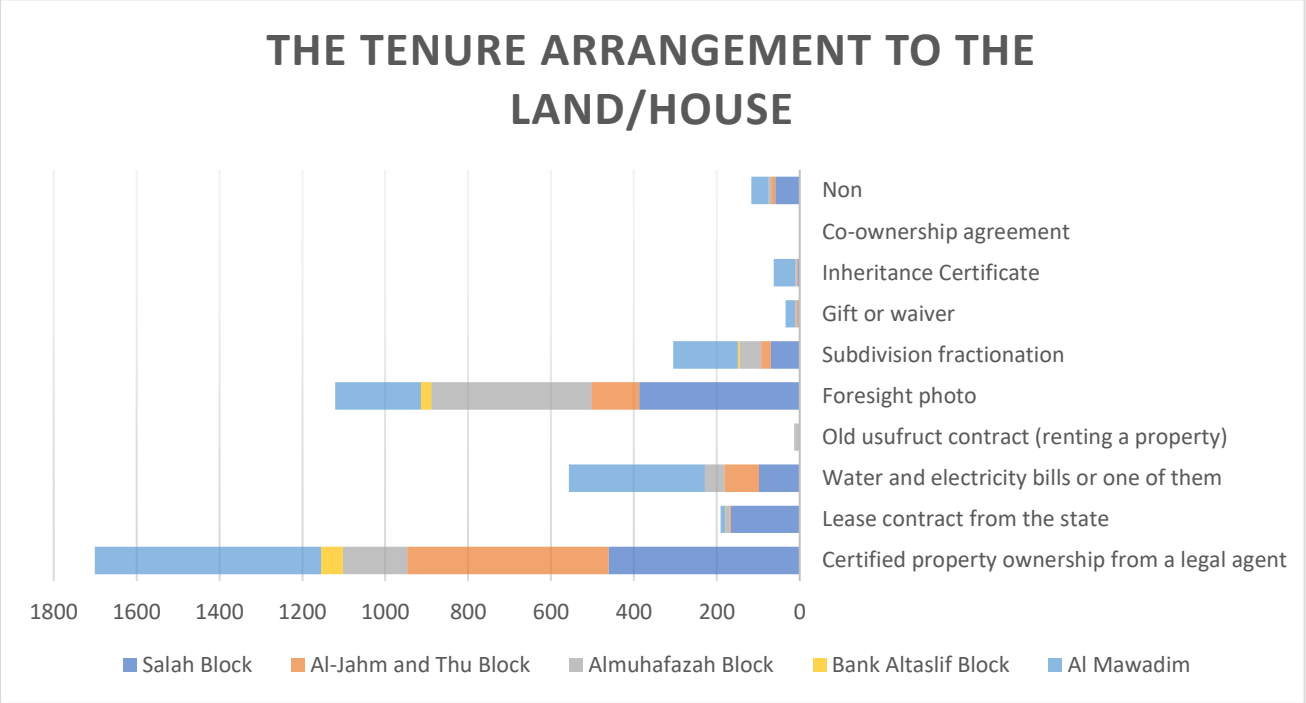


Chart 6-12

Overview of the tenure arrangement by Block:

- **Salah Block**:
    - In areas with **Slight or No Damage**, the most common tenure arrangements include certified property ownership from a legal agent (70) and foresight photos (67). In **Minor Damage (Partial)**, certified property ownership (300) and foresight photos (260) are predominant, followed by lease contracts from the state (136).
    - **Major Damage (Partial)** continues with certified property ownership (46) and foresight photos (24). **Severe Damage** shows smaller figures, with certified property ownership (24) and co-ownership agreements (13) noted. **Fully Destroyed** areas have limited tenure data, with certified property ownership (21) as the most common.
- **Al-Jahmaliah and Thuabat Block**:
    - In **Slight or No Damage**, certified property ownership (41) and water and electricity bills (9) are the most common. In **Minor Damage (Partial)**, certified property ownership (343) predominates, followed by water and electricity bills (57).
    - **Major Damage (Partial)** shows 49 cases of certified property ownership, with other tenure types less represented. **Severe Damage** and **Fully Destroyed** levels show minimal data, with certified property ownership (28) being the most common.
- **Almuhafazah Block**:
    - In **Slight or No Damage**, certified property ownership (14) and foresight photos (64) are notable. In **Minor Damage (Partial)**, certified property ownership (90) and foresight photos (258) are highlighted.
    - **Major Damage (Partial)** shows fewer cases, with certified property ownership (30) and foresight photos (51). **Severe Damage** and **Fully Destroyed** categories have minimal data, with only a few cases recorded.
- **Bank Altaslif Block**:
    - Shows low numbers overall, with **Slight or No Damage** reporting certified property ownership (21) as the most common type. In **Minor Damage (Partial)**, certified property ownership (30) is predominant, while higher damage levels show minimal data or no records.
- **Al Mawadim Block**:
    - In **Slight or No Damage**, certified property ownership (241) and water and electricity bills (156) are the primary arrangements. In **Minor Damage (Partial)**, certified property ownership (257) and water and electricity bills (125) are common.
- **Major Damage (Partial)** continues this trend with certified property ownership (31) and water and electricity bills (33). **Severe Damage** shows limited data, with certified property ownership (9) noted. **Fully Destroyed** areas have very few cases, with certified property ownership (8) and co-ownership agreements (4) present.

Overall, across **Salah** and **Sabir Al Mawadim** districts, certified property ownership from a legal agent is the most consistent form of tenure arrangement, especially in **Slight or No Damage** and **Minor Damage (Partial)** categories. Other common arrangements include water and electricity bills and foresight photos. As damage severity increases, the frequency of all tenure types decreases, with only minimal cases in **Severe Damage** and **Fully Destroyed** areas.

6.4 General Information about the House:

6.4.1 Building Materials

The following graph depicts the distribution of various building materials used in the construction of houses across the Salah and Sabir Al Mawadim districts, illustrating the reinforced concrete and rock blocks, along with other materials such as cement blocks and wooden frames.

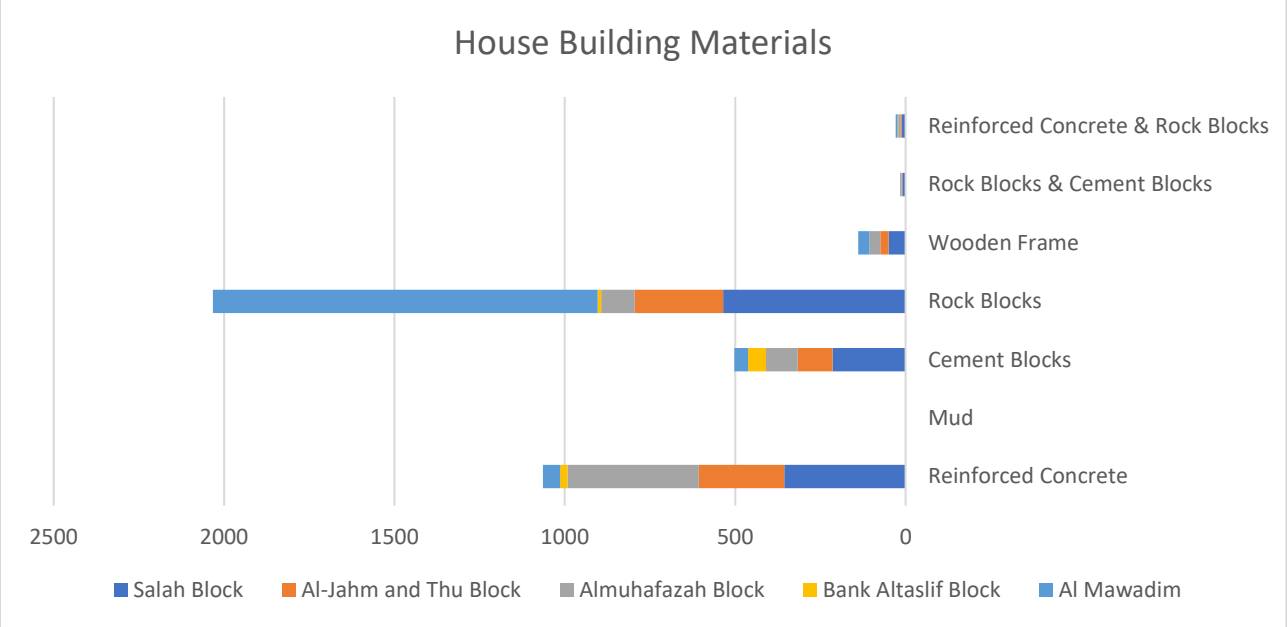


Chart 6-13

Overview of by Blocks:

- **Salah Block**:
  - In areas with **Slight or No Damage**, the most common building materials are reinforced concrete (86) and rock blocks (62), with cement blocks (25) also present.
  - In **Minor Damage (Partial)**, there is significant use of reinforced concrete (232), rock blocks (338), and cement blocks (165).
  - **Major Damage (Partial)** shows reduced figures, with rock blocks (66) and reinforced concrete (16) being prominent.
  - **Severe Damage** has minimal cases, with rock blocks (38) and reinforced concrete (7).
  - In **Fully Destroyed** areas, reinforced concrete (17) and rock blocks (31) are most common, although overall numbers are low.
- **Al-Jahmaliah and Thuabat Block**: In **Slight or No Damage**, the primary materials are reinforced concrete (46) and rock blocks (8).
  - **Minor Damage (Partial)** shows higher counts for reinforced concrete (147) and rock blocks (184).
  - **Major Damage (Partial)** sees 36 cases of rock blocks and 24 of reinforced concrete.
  - In **Severe Damage** and **Fully Destroyed** areas, fewer cases are noted, with rock blocks (27) and reinforced concrete (13) still represented.
- **Almuhafazah Block**: In **Slight or No Damage**, reinforced concrete (71) is dominant.
  - **Minor Damage (Partial)** features 260 cases of reinforced concrete, followed by rock blocks (51).
  - Higher damage levels show lower figures, with both materials recorded minimally in **Severe Damage** and **Fully Destroyed** categories.
- **Bank Altaslif Block**: This block shows lower figures overall, with **Slight or No Damage** indicating some use of cement blocks (19) and reinforced concrete (14).
  - **Minor Damage (Partial)** highlights small figures for cement blocks (31), while higher damage levels exhibit very few records.

- **Al Mawadim Block**: For **Slight or No Damage**, rock blocks (456) are the most common, followed by reinforced concrete (34) and cement blocks (15).
    - **Minor Damage (Partial)** shows a high prevalence of rock blocks (570) and reinforced concrete (15).
    - In **Major Damage (Partial)**, rock blocks (67) remain the most common material, while **Severe Damage** indicates minimal cases, with rock blocks (22) and reinforced concrete (1).
    - **Fully Destroyed** areas show negligible material data, with some use of reinforced concrete (14).

Overall, across both districts, reinforced concrete and rock blocks are the most commonly used materials, particularly in areas with **Slight or No Damage** and **Minor Damage (Partial)**. The use of these materials declines as damage severity increases, with minimal representation in **Severe Damage** and **Fully Destroyed** categories.

6.4.2 Construction System Type

The graph below illustrates the distribution of various construction system types used in houses across the **Salah** and **Sabir Al Mawadim** districts, highlighting the load-bearing wall buildings compared to frame structure RCC buildings and other construction styles.

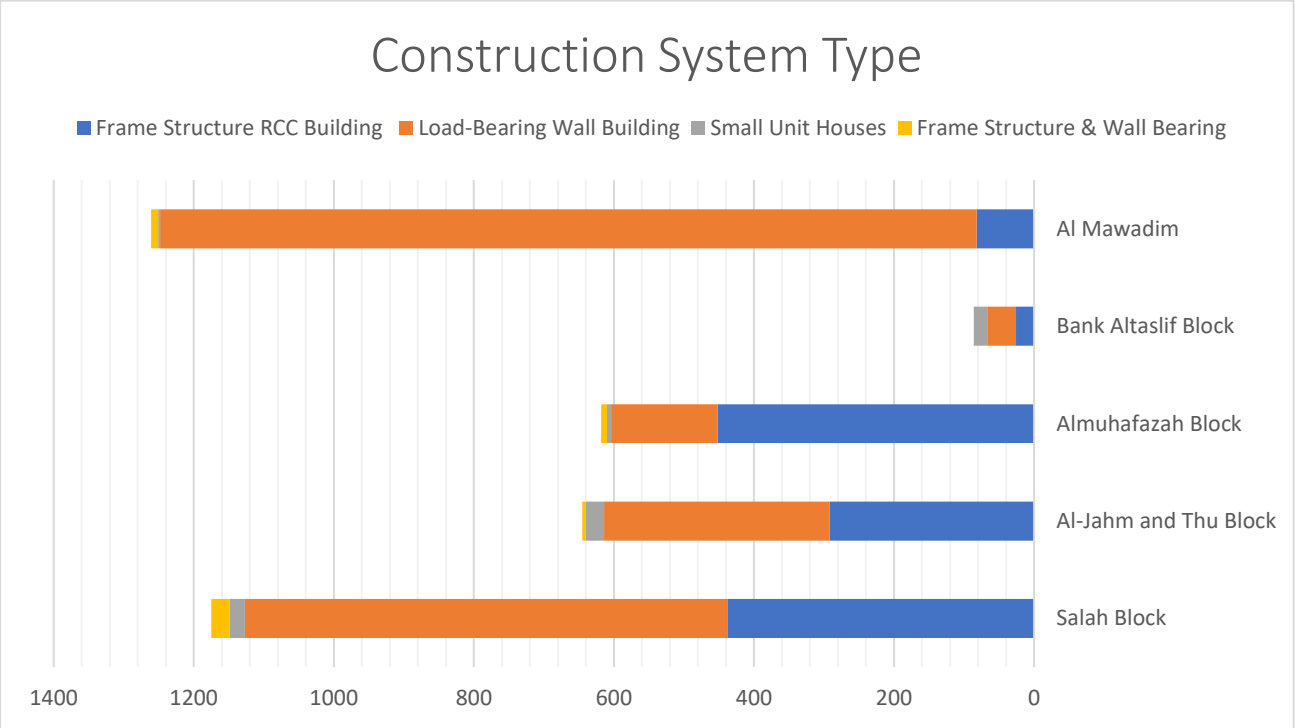


Chart 6-14

Overview of by Blocks:

- **Salah Block**:
    - In areas with **Slight or No Damage**, frame structure RCC buildings (111) and load-bearing wall buildings (63) are the most common types.
    - **Minor Damage (Partial)** reveals an increase in load-bearing wall buildings (479) and frame structure RCC buildings (281).
    - **Major Damage (Partial)** highlights 76 load-bearing wall buildings and 16 frame structure RCC buildings.
    - **Severe Damage** records 43 load-bearing wall buildings as the primary construction type, with minimal cases for frame structure RCC buildings (7).
    - In **Fully Destroyed** areas, there are fewer cases, with 29 load-bearing wall buildings and 22 frame structure RCC buildings noted.

- **Al-Jahmaliah and Thuabat Block**: Similar trends are observed, with **Slight or No Damage** showing frame structure RCC buildings (49) and load-bearing wall buildings (13).
    - **Minor Damage (Partial)** is dominated by load-bearing wall buildings (243), followed by frame structure RCC buildings (168).
    - **Major Damage (Partial)** continues this pattern, with 35 load-bearing wall buildings and 34 frame structure RCC buildings.
    - **Severe Damage** has 20 load-bearing wall buildings and fewer frame structures (7). In **Fully Destroyed** areas, minimal cases are recorded, with frame structures (34) and load-bearing wall buildings (11) present.
- **Almuhafazah Block**: Indicates that **Slight or No Damage** areas primarily use frame structure RCC buildings (81).
    - **Minor Damage (Partial)** shows load-bearing wall buildings (304) as predominant, followed by frame structure RCC buildings (93).
    - **Major Damage (Partial)** has 52 frame structure RCC buildings and 35 load-bearing wall buildings, with minimal representation in higher damage levels.
- **Bank Altaslif Block**: Shows low figures overall, with **Slight or No Damage** recording frame structure RCC buildings (17) and load-bearing wall buildings (15).
    - **Minor Damage (Partial)** highlights 24 load-bearing wall buildings, with negligible figures in higher damage levels.
- **Al Mawadim Block**: For **Slight or No Damage**, load-bearing wall buildings (466) are the dominant type, along with some frame structure RCC buildings (56).
    - **Minor Damage (Partial)** continues this trend with 595 load-bearing wall buildings and 23 frame structure RCC buildings.
    - **Major Damage (Partial)** shows 69 load-bearing wall buildings as the primary type, with few frame structures (3).
    - **Severe Damage** has limited cases, primarily focusing on load-bearing walls (22), while **Fully Destroyed** areas record minimal data.

Overall, across both districts, load-bearing wall buildings are the most consistently used construction type, particularly in **Minor Damage (Partial)** and **Slight or No Damage** areas. Frame structure RCC buildings are also notable, especially in less severely damaged areas. The presence of small unit houses and combinations of frame structures and load-bearing walls is minimal, primarily appearing in lower damage levels. As damage severity increases, the use of all construction types declines, with fewer cases recorded in **Severe Damage** and **Fully Destroyed** categories.

6.4.3 House Type

The graph below depicts the distribution of house types in the **Salah** and **Sabir Al Mawadim** districts, illustrating single-storey buildings compared to multi-storey buildings across the assessed blocks.

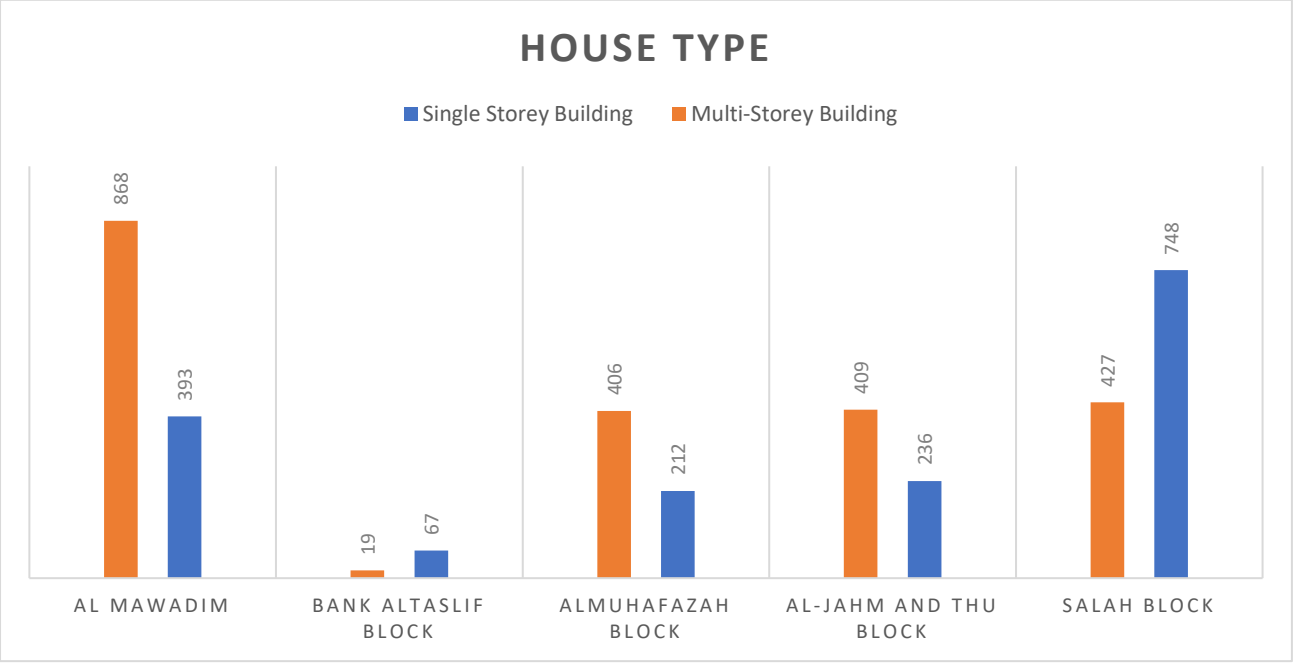


Chart 6-15

Overview of by Blocks:

- **Salah Block**:
    - **Slight or No Damage: Single-storey buildings make up 66% (120/182) of structures, while multi-storey buildings account for 34% (62/182).**
    - **Minor Damage (Partial): Single-storey buildings dominate with 65% (506/784), compared to multi-storey buildings at 35% (278/784).**
    - **Major Damage (Partial): Single-storey buildings remain more prevalent, comprising 60% (62/103) of the total, with multi-storey buildings at 40% (41/103).**
    - **Severe Damage: Single-storey buildings account for 63% (34/54), and multi-storey buildings make up 37% (20/54).**
    - **Fully Destroyed: Both building types are equally represented at 50% (26/52).**
- **Al-Jahmaliah and Thuabat Block**:
    - **Slight or No Damage**: Multi-storey buildings are more common, comprising **66% (42/64)**, while single-storey buildings represent **34% (22/64)**.
    - **Minor Damage (Partial)**: Multi-storey buildings dominate with **64% (274/431)**, compared to single-storey buildings at **36% (157/431)**.
    - **Major Damage (Partial)**: Multi-storey buildings account for **72% (52/72)**, with single-storey buildings making up **28% (20/72)**.
    - **Severe Damage**: Single-storey buildings represent **61% (20/33)**, and multi-storey buildings account for **39% (13/33)**.
    - **Fully Destroyed**: Multi-storey buildings are more prevalent, making up **62% (28/45)**, compared to single-storey buildings at **38% (17/45)**.
- **Almuhafazah Block**:
    - **Slight or No Damage**: Multi-storey buildings are **70% (64/91)**, while single-storey buildings account for **30% (27/91)**.
    - **Minor Damage (Partial)**: Multi-storey buildings make up **65% (263/405)**, compared to single-storey buildings at **35% (142/405)**.
    - **Major Damage (Partial)**: Multi-storey buildings dominate at **66% (58/88)**, while single-storey buildings account for **34% (30/88)**.
    - **Severe Damage**: Multi-storey buildings make up **57% (16/28)**, while single-storey buildings account for **43% (12/28)**.
    - **Fully Destroyed**: Multi-storey buildings represent **83% (5/6)**, with single-storey buildings at **17% (1/6)**.
- **Bank Altaslif Block**:
    - **Slight or No Damage**: Single-storey buildings are **77% (27/35)**, compared to multi-storey buildings at **23% (8/35)**.
    - **Minor Damage (Partial)**: Single-storey buildings account for **78% (38/49)**, while multi-storey buildings make up **22% (11/49)**.
    - **Major Damage (Partial)**: Single-storey buildings dominate, with negligible figures for multi-storey buildings.
- **Sabir Al Mawadim Block (Al Mawadim Block)**:
    - **Slight or No Damage**: Multi-storey buildings are more common, comprising **69% (364/526)**, while single-storey buildings make up **31% (162/526)**.
    - **Minor Damage (Partial)**: Multi-storey buildings account for **69% (429/624)**, with single-storey buildings at **31% (195/624)**.
    - **Major Damage (Partial)**: Multi-storey buildings dominate at **69% (51/74)**, with single-storey buildings at **31% (23/74)**.
    - **Severe Damage**: Multi-storey buildings represent **57% (13/23)**, while single-storey buildings account for **43% (10/23)**.
    - **Fully Destroyed**: Multi-storey buildings are **79% (11/14)**, while single-storey buildings make up **21% (3/14)**.

Overall Analysis:

Ratios of Building Types:

- **Single-Storey Buildings: More prevalent in Salah Block and Bank Altaslif Block, with ratios ranging from 50% to 78% depending on damage levels.**

- **Multi-Storey Buildings: Dominate in Al-Jahmaliah and Thuabat Block, Almuhafazah Block, and Sabir Al Mawadim Block, with ratios often exceeding 60%.**

6.4.4 Number of Stories

The following graph illustrates the distribution of the number of stories in multi-storey buildings across the **Salah** and **Sabir Al Mawadim** districts.

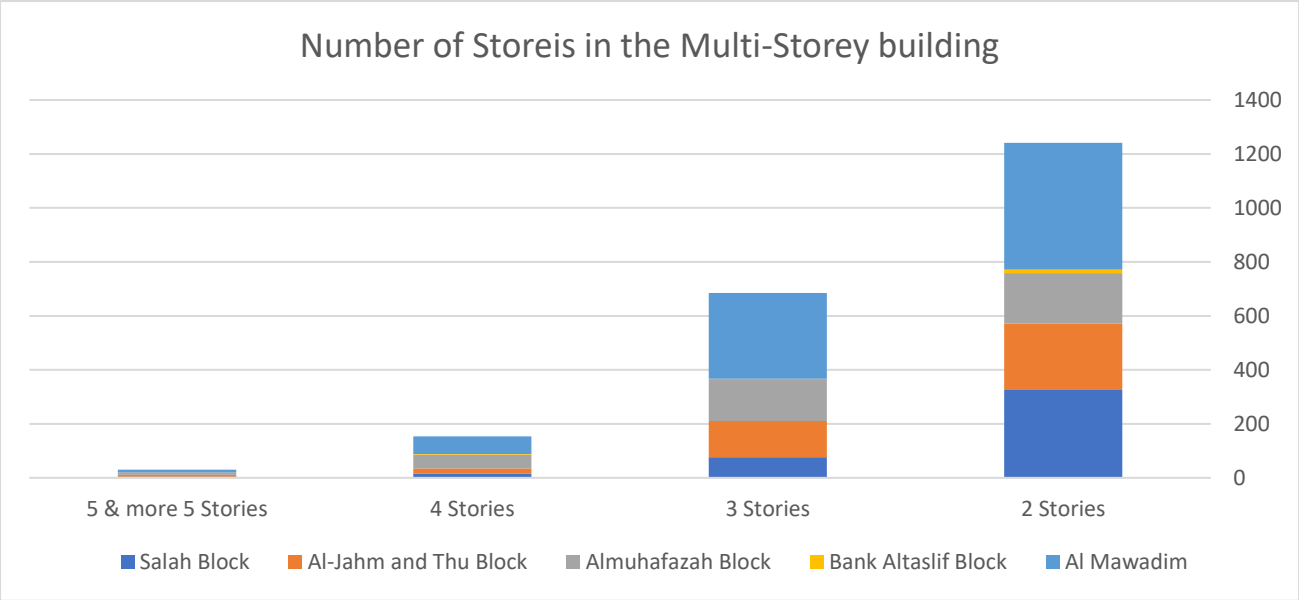


Chart 6-16

Overview of by Blocks:

- **Salah block**:
  - **Salah Block**: In **Slight or No Damage**, the majority of multi-storey buildings have 2 stories (49), followed by 3 stories (10). Higher story counts (4 to 8 stories) are rare, with only minimal cases (1 for 8 stories).
  - **Minor Damage (Partial)** shows an increase in the number of 2-story buildings (217) and 3-story buildings (47), while buildings with 4 stories and higher remain uncommon.
  - **Major Damage (Partial)** features 2-story (32) and 3-story (7) buildings, with minimal representation in higher story counts.
  - **Severe Damage** and **Fully Destroyed** categories have fewer buildings, with 2-story (16) and 3-story (6) structures being the most common.
- **Al-Jahmaliah and Thuabat Block**: In **Slight or No Damage**, 2-story (23) and 3-story (16) buildings are the majority.
  - **Minor Damage (Partial)** records a notable increase in 2-story (168) and 3-story (87) buildings, with very few buildings having 5 or more stories.
  - **Major Damage (Partial)** includes 2-story (31) and 3-story (17) structures, with even fewer higher-story buildings.
  - **Severe Damage** and **Fully Destroyed** categories show minimal cases, primarily involving 2-story and 3-story buildings.
- **Almuhafazah Block**: **Slight or No Damage** has a balanced count of 2-story (22) and 3-story (29) buildings.
  - **Minor Damage (Partial)** sees more 2-story (123) and 3-story (104) buildings, with a few buildings having up to 8 stories.
  - **Major Damage (Partial)** shows fewer cases, with 2-story (31) and 3-story (16) buildings.
  - **Severe Damage** and **Fully Destroyed** have limited data, mainly with 2-story and 3-story buildings.
- **Bank Altaslif Block**: Shows low figures overall, with **Slight or No Damage** reporting a few 2-story (6) buildings and minimal counts in other categories.
- **Al Mawadim Block**: In **Slight or No Damage**, there is a significant number of 2-story (189) and 3-story (142) buildings.
  - **Minor Damage (Partial)** reports more 2-story (237) and 3-story (148) buildings, with a few up to 8 stories.
  - **Major Damage (Partial)** features 2-story (32) and 3-story (17) buildings.

- **Severe Damage** and **Fully Destroyed** levels have very few multi-storey buildings, primarily focusing on 2-story and 3-story structures.

Overall, across **Salah** and **Sabir Al Mawadim** districts, 2-story and 3-story buildings dominate the multi-storey category across all damage levels, particularly in **Slight or No Damage** and **Minor Damage (Partial)**. The number of higher-story buildings (4 stories and above) significantly decreases as damage severity increases, with minimal representation in **Severe Damage** and **Fully Destroyed** categories. This trend suggests that taller structures may be more resilient or less common in these areas or may suffer disproportionately in **Severe Damage** cases.

6.4.5 House Area

The graph displays the distribution of house areas among different blocks, highlighting the number of houses within specified size categories.

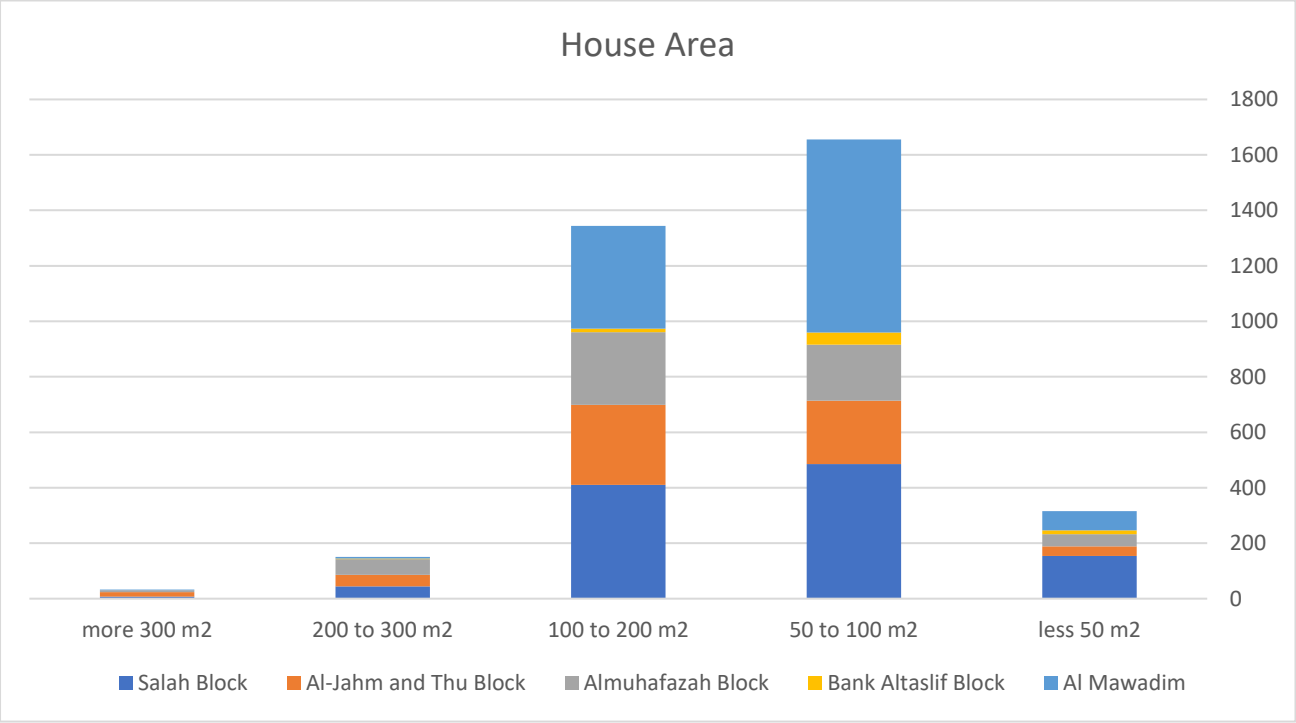


Chart 6-17

Overview of by Blocks:

- **Salah Block**:
  - **Salah Block**: In areas with **Slight or No Damage**, houses between 50 to 100 m² (65) and 100 to 200 m² (52) are most common.
  - **Minor Damage (Partial)** sees a significant increase in houses of 50 to 100 m² (331) and 100 to 200 m² (283).
  - **Major Damage (Partial)** shows fewer cases, with most houses falling within the 50 to 100 m² (46) and 100 to 200 m² (36) ranges.
  - **Severe Damage** records minimal cases, with the majority in the 50 to 100 m² (18) range.
  - **Fully Destroyed** areas show even fewer cases, with 50 to 100 m² (25) and 100 to 200 m² (19) being the most common.
- **Al-Jahmaliah and Thuabat Block**: Follows a similar pattern. In **Slight or No Damage**, houses of 100 to 200 m² (31) and 50 to 100 m² (22) are prevalent.
  - **Minor Damage (Partial)** has 164 houses of 50 to 100 m² and 187 of 100 to 200 m².
  - **Major Damage (Partial)** shows a concentration in 100 to 200 m² (36).
  - **Severe Damage** and **Fully Destroyed** levels are minimal, with the most common areas being 50 to 100 m² (12) and 100 to 200 m² (14).

- **Almuhafazah Block**: Indicates that **Slight or No Damage** includes 100 to 200 m² (41) and 50 to 100 m² (16) as common sizes.
    - **Minor Damage (Partial)** predominantly has 100 to 200 m² (162) and 50 to 100 m² (143).
    - **Major Damage (Partial)** shows most houses in the 100 to 200 m² (41) range.
    - **Severe Damage** and **Fully Destroyed** areas have minimal cases, with very few houses recorded.
- **Bank Altaslif Block**: Has the lowest numbers, with **Slight or No Damage** primarily consisting of 50 to 100 m² (21).
    - **Minor Damage (Partial)** has few records, with 50 to 100 m² (23) as the most common.
    - Higher damage levels have negligible data.
- **Al Mawadim Block**: **Slight or No Damage** shows houses of 50 to 100 m² (266) and 100 to 200 m² (167) as predominant.
    - **Minor Damage (Partial)** has an increase in 50 to 100 m² (374) and 100 to 200 m² (168).
    - **Major Damage (Partial)** records most houses in the 50 to 100 m² (36) range.
    - **Severe Damage** and **Fully Destroyed** categories show very few cases, with most in the 50 to 100 m² range.

Overall, across **Salah** and **Sabir Al Mawadim** districts, houses between 50 to 100 m² and 100 to 200 m² are the most prevalent across all damage levels, particularly in **Slight or No Damage** and **Minor Damage (Partial)** areas. Larger houses over 200 m² are less common and mostly appear in areas with minimal damage. As the severity of damage increases, the distribution of house areas shifts, with fewer cases recorded in **Severe Damage** and **Fully Destroyed** categories.

6.5 Damage Information:

6.5.1 Reason for House Damage

The graph illustrates the reasons for house damage across different blocks, categorizing the primary causes as conflict, natural disaster, and the time and lack of maintenance. It highlights the frequency of each reason in relation to the overall damage reported.

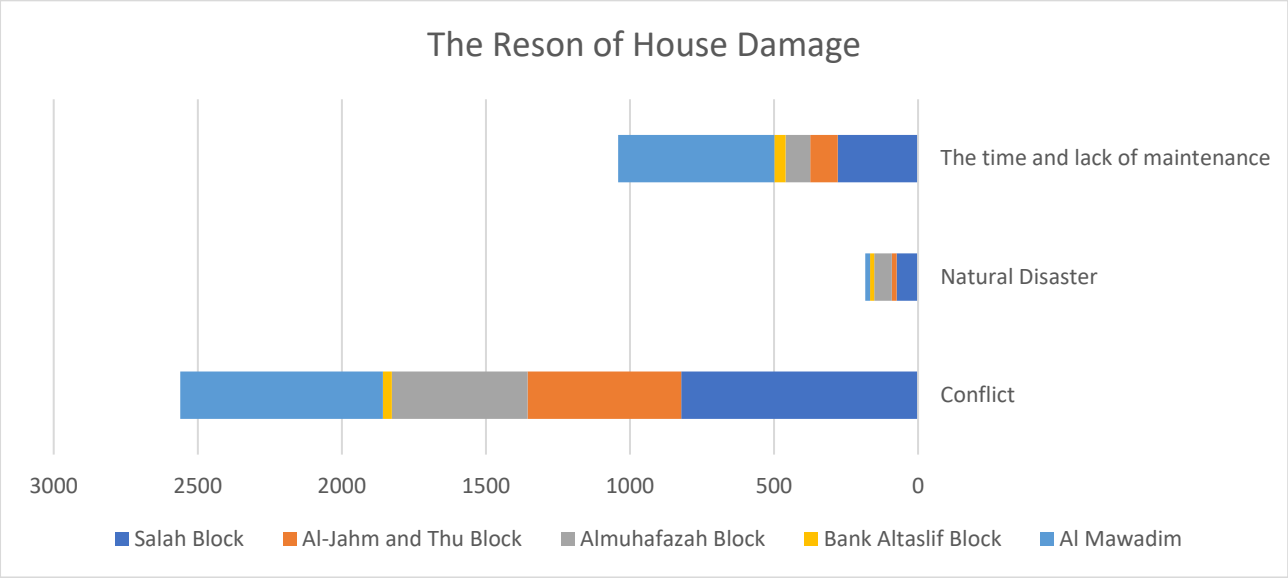


Chart 6-18

Overview of by Blocks:

- **Salah Block**:
    - **Salah Block**: In areas with **Slight or No Damage**, the main reasons for damage are conflict (95) and lack of maintenance (80). In **Minor Damage (Partial)**, the predominant cause is conflict (570), followed by lack of maintenance (153) and natural disasters (61).
    - **Major Damage (Partial)** also primarily results from conflict (65), with a lower count for lack of maintenance (34). In **Severe Damage**, conflict remains the primary cause (42), and in **Fully Destroyed** areas, it accounts for (50) of the damage, with minimal contributions from natural disasters and maintenance issues.

- **Al-Jahmaliah and Thuabat Block**: Shows similar trends. For **Slight or No Damage**, the main reasons are conflict (38) and lack of maintenance (26). In **Minor Damage (Partial)**, conflict (356) and maintenance issues (61) dominate.
    - **Major Damage (Partial)** is primarily caused by conflict (64), and **Severe Damage** has conflict (32) as the leading cause, while **Fully Destroyed** areas also reflect conflict (43) as the main reason, with minimal other causes.
- **Almuhafazah Block**: Indicates that in **Slight or No Damage**, conflict (57) and lack of maintenance (30) are common reasons.
    - **Minor Damage (Partial)** shows conflict (308) as the dominant reason, with natural disasters (56) and maintenance issues (41) also present. In **Major Damage (Partial)**, conflict (79) continues to be the main reason. **Severe Damage** and **Fully Destroyed** areas have lower counts, primarily due to conflict.
- **Bank Altaslif Block**: Records fewer cases overall, with **Slight or No Damage** indicating conflict (7) and lack of maintenance (26) as reasons. In **Minor Damage (Partial)**, conflict (23) is the leading cause. Higher damage levels have minimal data, but conflict remains notable.
- **Al Mawadim Block**: For **Slight or No Damage**, common reasons include time and lack of maintenance (274) and conflict (247). In **Minor Damage (Partial)**, conflict (393) is primarily responsible, followed by maintenance issues (221).
    - **Major Damage (Partial)** also shows conflict (34) as the main reason, while **Severe Damage** has conflict (20) as the most frequent cause. **Fully Destroyed** areas report conflict (9) as the predominant reason, with minimal maintenance issues noted.

Overall, across **Salah** and **Sabir Al Mawadim** districts, conflict is the most common reason for house damage at all damage levels, especially in **Minor Damage (Partial)** and **Major Damage (Partial)** categories. Lack of maintenance is also significant, particularly in areas with **Slight or No Damage**. Natural disasters contribute less frequently but are still present, especially in **Minor Damage (Partial)** areas. As damage severity increases, conflict remains the primary reason, while maintenance and natural disasters play a smaller role.

6.5.2 Repair Status

The graph presents the status of repairs for houses across various damage levels in different blocks. It categorizes the data into **Slight or No Damage**, **Minor Damage (Partial)**, **Major Damage (Partial)**, **Severe Damage**, and **Fully Destroyed** houses, indicating the number of houses that have been repaired or remain unrepaired in each category.

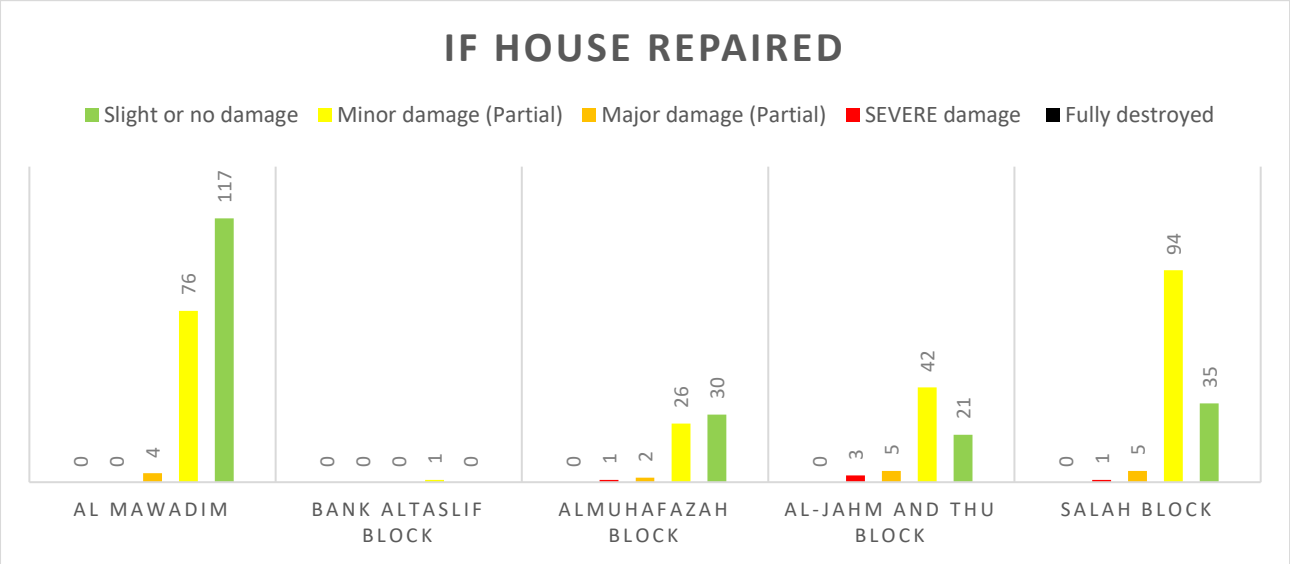


Chart 6-19

Overview of by Blocks:

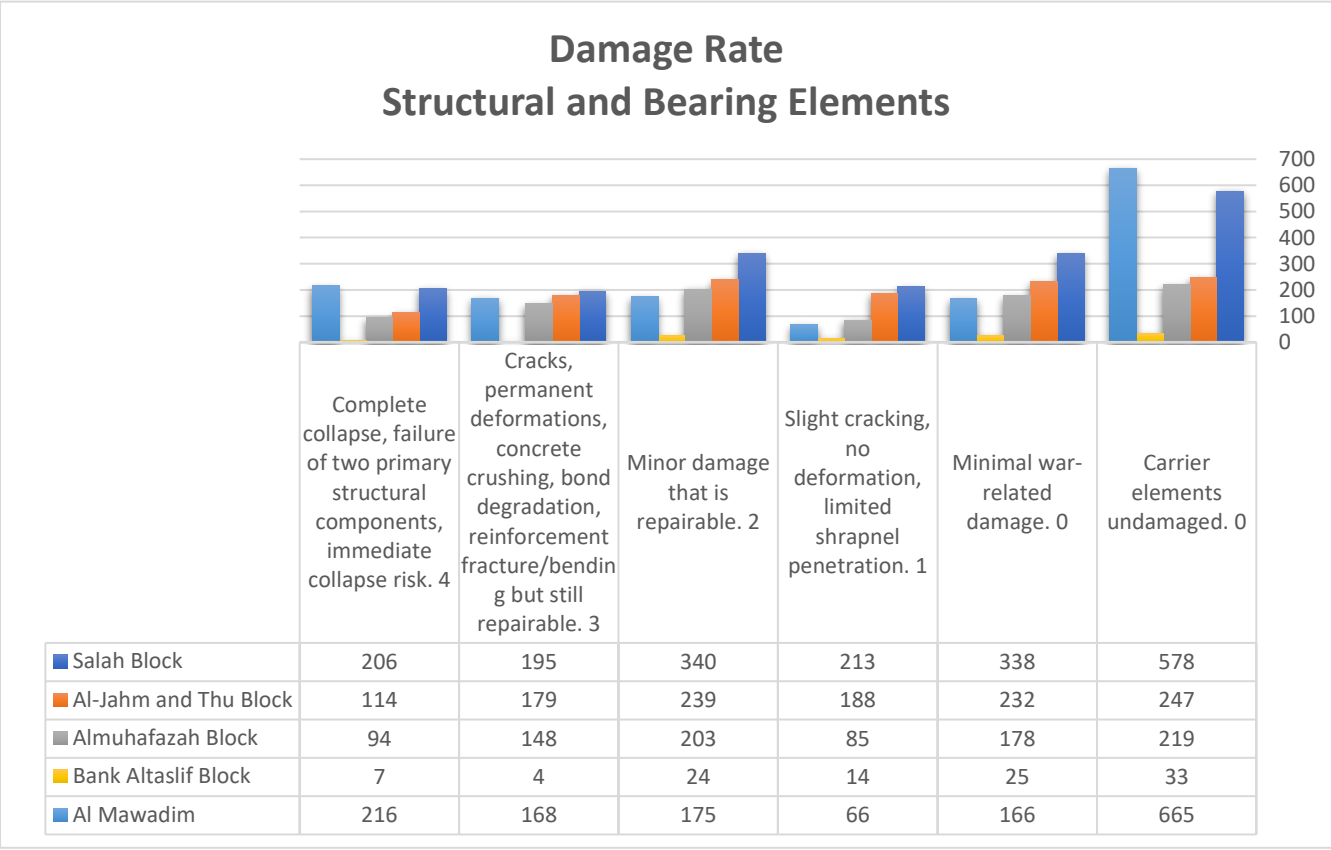
- **Salah Block**:
    - **Salah Block**: In areas with **Slight or No Damage**, 35 buildings have undergone maintenance or repairs. This number increases significantly in **Minor Damage (Partial)**, with 94 buildings receiving repairs.
    - **Major Damage (Partial)** shows a sharp decrease, with only 5 buildings maintained, while **Severe Damage** has just 1 building recorded as repaired. **Fully Destroyed** areas report no buildings maintained.

- **Al-Jahmaliah and Thuabat Block**: Records 21 buildings maintained in **Slight or No Damage** areas. In **Minor Damage (Partial)**, there are 42 buildings with repairs, and **Major Damage (Partial)** has 5. **Severe Damage** shows only 3 buildings repaired, and **Fully Destroyed** areas have none.
- **Almuhafazah Block**: Indicates 30 buildings maintained in **Slight or No Damage** areas and 26 in **Minor Damage (Partial)**. **Major Damage (Partial)** has only 2 buildings maintained, with 1 in **Severe Damage** and none in **Fully Destroyed**.
- **Bank Altaslif Block**: Shows very low numbers, with only 1 building maintained in **Minor Damage (Partial)** and none recorded in any other category.
- **Al Mawadim Block**: **Slight or No Damage** areas show 117 buildings maintained, while **Minor Damage (Partial)** has 76. In **Major Damage (Partial)**, only 4 buildings underwent maintenance, with no maintenance reported for **Severe Damage** or **Fully Destroyed** areas.

Overall, across **Salah** and **Sabir Al Mawadim** districts, the majority of building maintenance and repairs occur in areas with **Slight or No Damage** and **Minor Damage (Partial)**. Maintenance becomes minimal in **Major Damage (Partial)** and nearly non-existent in **Severe Damage** and **Fully Destroyed** areas, indicating that as damage severity increases, the likelihood of buildings receiving maintenance or repairs diminishes significantly.

6.5.3 Damage Rate: Structural and Bearing Elements

This graph illustrates the damage rates of structural and bearing elements across different blocks, categorizing the types of damage from complete collapse to undamaged carrier elements. The data highlights the frequency of various damage levels, including complete collapse, significant cracks, minor repairable damage, and instances of undamaged carrier elements. Each block is represented, allowing for comparison of structural integrity across the assessed areas.



	Complete collapse, failure of two primary structural components, immediate collapse risk. 4	Cracks, permanent deformations, concrete crushing, bond degradation, reinforcement fracture/bending but still repairable. 3	Minor damage that is repairable. 2	Slight cracking, no deformation, limited shrapnel penetration. 1	Minimal war-related damage. 0	Carrier elements undamaged. 0
Salah Block	206	195	340	213	338	578
Al-Jahm and Thu Block	114	179	239	188	232	247
Almuhafazah Block	94	148	203	85	178	219
Bank Altaslif Block	7	4	24	14	25	33
Al Mawadim	216	168	175	66	166	665

Chart 6-20

Overview of by Blocks:

- **Salah Block**:

    - **Salah Block**: In **Slight or No Damage**, most structures have undamaged carrier elements (123) with minimal war-related damage (29). In **Minor Damage (Partial)**, there are higher instances of minor repairable damage (292) and slight cracking (167).
    - **Major Damage (Partial)** shows fewer undamaged structures (40), with repairable cracks and deformations (33) being the main issue. **Severe Damage** features a small number of cases with a high risk of collapse (34). In **Fully Destroyed** areas, there are few undamaged elements, with some complete collapses (48).
- **Al-Jahmaliah and Thuabat Block**: In **Slight or No Damage**, most elements are undamaged (46). **Minor Damage (Partial)** includes significant minimal damage (196) and slight cracking (156).
    - **Major Damage (Partial)** primarily shows repairable cracks (21) and minor cases with higher damage (48). **Severe Damage** has fewer cases, with significant damage in some structures (16). **Fully Destroyed** areas have very few undamaged elements, with notable collapse cases (40).
- **Almuhafazah Block**: In **Slight or No Damage**, primarily features undamaged elements (56). **Minor Damage (Partial)** highlights **Minor Damage (Partial)** (174) and minimal war-related damage (133).
    - **Major Damage (Partial)** records 30 cases of repairable deformations, while **Severe Damage** shows few instances with high damage (16). **Fully Destroyed** areas report minimal cases, with very few undamaged structures (5).
- **Bank Altaslif Block**: Shows low figures, with **Slight or No Damage** having most elements undamaged (11). **Minor Damage (Partial)** displays limited minor repairable damage (21). Higher damage levels have minimal data.
- **Al Mawadim Block**: In **Slight or No Damage**, there are significant cases with undamaged elements (413). **Minor Damage (Partial)** includes repairable damage (171) and slight cracking (109).
    - **Major Damage (Partial)** highlights repairable cracks (61). **Severe Damage** and **Fully Destroyed** levels show few undamaged elements, with some complete collapses (13).

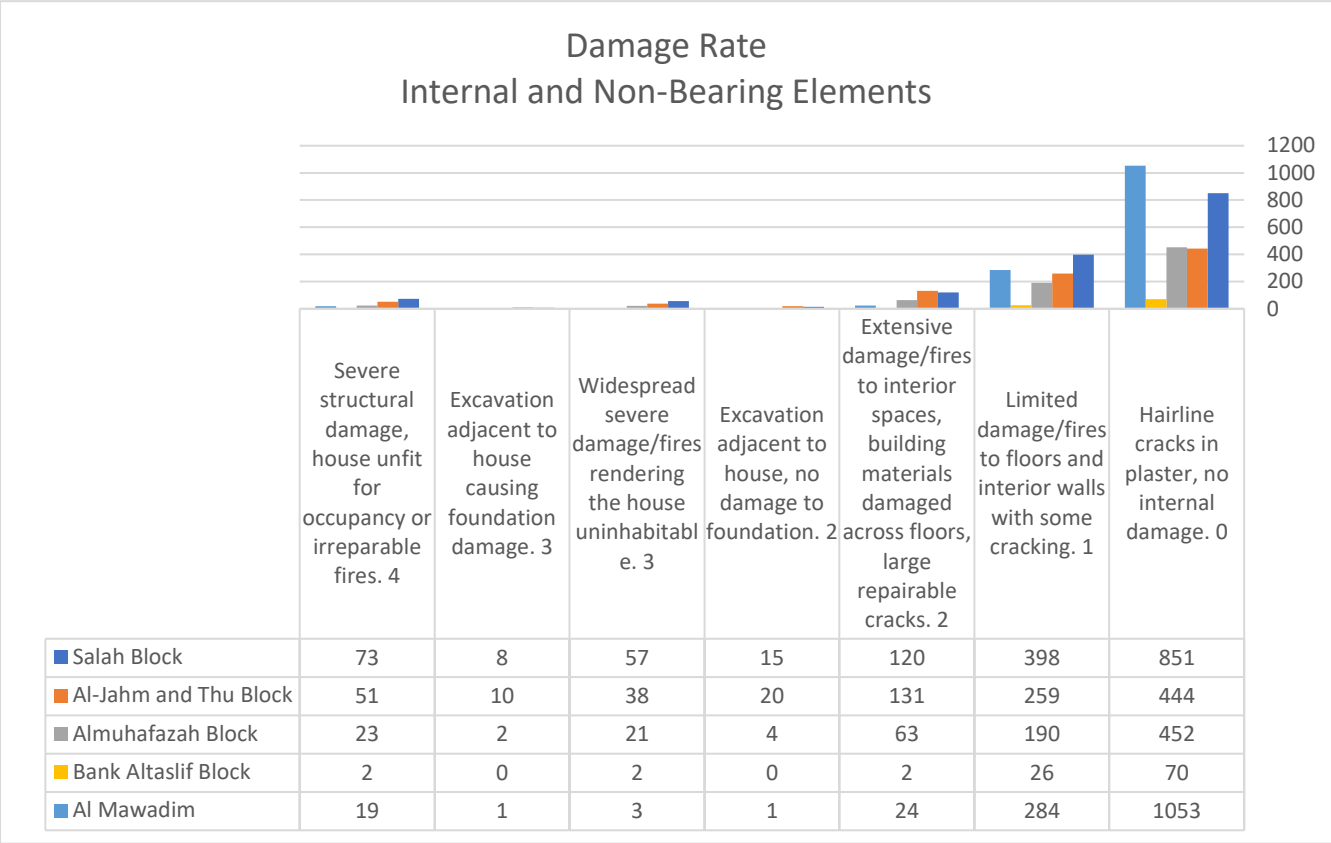
Results of Damage
Overall results reflect the extent of damage across districts:

- **Salah Block**: In **Slight or No Damage**, most buildings (124) have result 0 (no significant damage). **Minor Damage (Partial)** sees an increase in result 2 (256) and result 3 (88), indicating repairable damage.
    - **Major Damage (Partial)** shifts toward result 3 (58), while **Severe Damage** reports higher instances of result 3 and 4 (34), showing severe deformations or collapse risk. **Fully Destroyed** areas mostly fall under result 4 (48).
- **Al-Jahmaliah and Thuabat Block**: Similar trends appear, with **Slight or No Damage** having result 0 (45) as the most frequent. **Minor Damage (Partial)** is dominated by result 2 (169) and 3 (91).
    - **Major Damage (Partial)** has a higher occurrence of result 3 (41), while **Severe Damage** shows result 3 and 4 (16) prominently. **Fully Destroyed** areas have result 4 (40) as the main outcome.
- **Almuhafazah Block**: In **Slight or No Damage**, most results are 0 (56). **Minor Damage (Partial)** includes results of 2 (163) and 3 (62).
    - **Major Damage (Partial)** mainly reports result 3 (48). **Severe Damage** and **Fully Destroyed** levels show result 4 (16) with very few undamaged structures.
- **Bank Altaslif Block**: Records low numbers, with **Slight or No Damage** results showing 0 (11). **Minor Damage (Partial)** has a higher count of result 2 (21). Higher damage levels have minimal records.
- **Al Mawadim Block**: Indicates **Slight or No Damage** results in 0 (413). **Minor Damage (Partial)** features results of 2 (152) and 3 (80).
    - **Major Damage (Partial)** records result 3 (57). **Severe Damage** and **Fully Destroyed** areas have minimal results but include **Severe Damage** (result 4).

Overall, observations indicate that across **Salah** and **Sabir Al Mawadim** districts, undamaged carrier elements and minimal war-related damage are common in **Slight or No Damage** areas. As damage severity increases, data shifts toward repairable damage (results 2 and 3) in **Minor Damage (Partial)** and **Major Damage (Partial)** levels. **Severe Damage** and **Fully Destroyed** categories show increased occurrences of complete collapses (result 4), indicating significant structural failure.

6.5.4 Internal and Non-Bearing Elements

This graph presents the damage rates of internal and non-bearing elements across different blocks, categorizing the types of damage from severe structural issues rendering houses uninhabitable to minimal hairline cracks. The data highlights the frequency of various damage levels, including extensive internal damage, excavation impacts, and conditions that are still repairable. Each block is represented, facilitating comparison of the state of internal and non-bearing elements across the assessed areas.



	Severe structural damage, house unfit for occupancy or irreparable fires. 4	Excavation adjacent to house causing foundation damage. 3	Widespread severe damage/fires rendering the house uninhabitable. 3	Excavation adjacent to house, no damage to foundation. 2	Extensive damage/fires to interior spaces, building materials damaged across floors, large repairable cracks. 2	Limited damage/fires to floors and interior walls with some cracking. 1	Hairline cracks in plaster, no internal damage. 0
Salah Block	73	8	57	15	120	398	851
Al-Jahm and Thu Block	51	10	38	20	131	259	444
Almuhafazah Block	23	2	21	4	63	190	452
Bank Altaslif Block	2	0	2	0	2	26	70
Al Mawadim	19	1	3	1	24	284	1053

Chart 6-21

Overview of by Blocks:

- **Salah Block**:
  - **Salah Block**: In **Slight or No Damage**, most cases have only hairline cracks with no internal damage (180). **Minor Damage (Partial)** sees limited damage (311) and significant repairable interior damage (79).
  - **Major Damage (Partial)** shows a decrease, with limited damage (60) and fewer severe cases (14). **Severe Damage** records more severe instances (17) and severe structural damage (21). **Fully Destroyed** areas indicate a notable amount of **Severe Damage** (44).
- **Al-Jahmaliah and Thuabat Block**: **Slight or No Damage** primarily shows hairline cracks (62).
  - **Minor Damage (Partial)** records significant limited damage (205) and repairable interior issues (77).
  - **Major Damage (Partial)** highlights extensive interior damage (36) and severe cases (9). **Severe Damage** has fewer cases, with structural damage appearing more frequently (11). **Fully Destroyed** areas show an increase in **Severe Damage** (38).
- **Almuhafazah Block**: **Slight or No Damage** has hairline cracks (91) as the main type.
  - **Minor Damage (Partial)** shows limited damage (141) and some repairable interior issues (28).
  - **Major Damage (Partial)** records repairable issues (40) and **Severe Damage** (12). **Severe Damage** has minimal data, while **Fully Destroyed** areas report very few cases (4).
- **Bank Altaslif Block**: **Slight or No Damage** shows 35 cases of hairline cracks.
  - **Minor Damage (Partial)** records limited damage (24) but minimal **Severe Damage** across higher damage levels.
- **Al Mawadim Block**: **Slight or No Damage** shows a high count of hairline cracks (526).
  - **Minor Damage (Partial)** includes limited damage (219) and minimal repairable interior issues (9).
  - **Major Damage (Partial)** highlights some cases of repairable interior damage (46) and **Severe Damage** (12). **Severe Damage** and **Fully Destroyed** categories report minimal instances, with a few cases of severe structural damage (11).

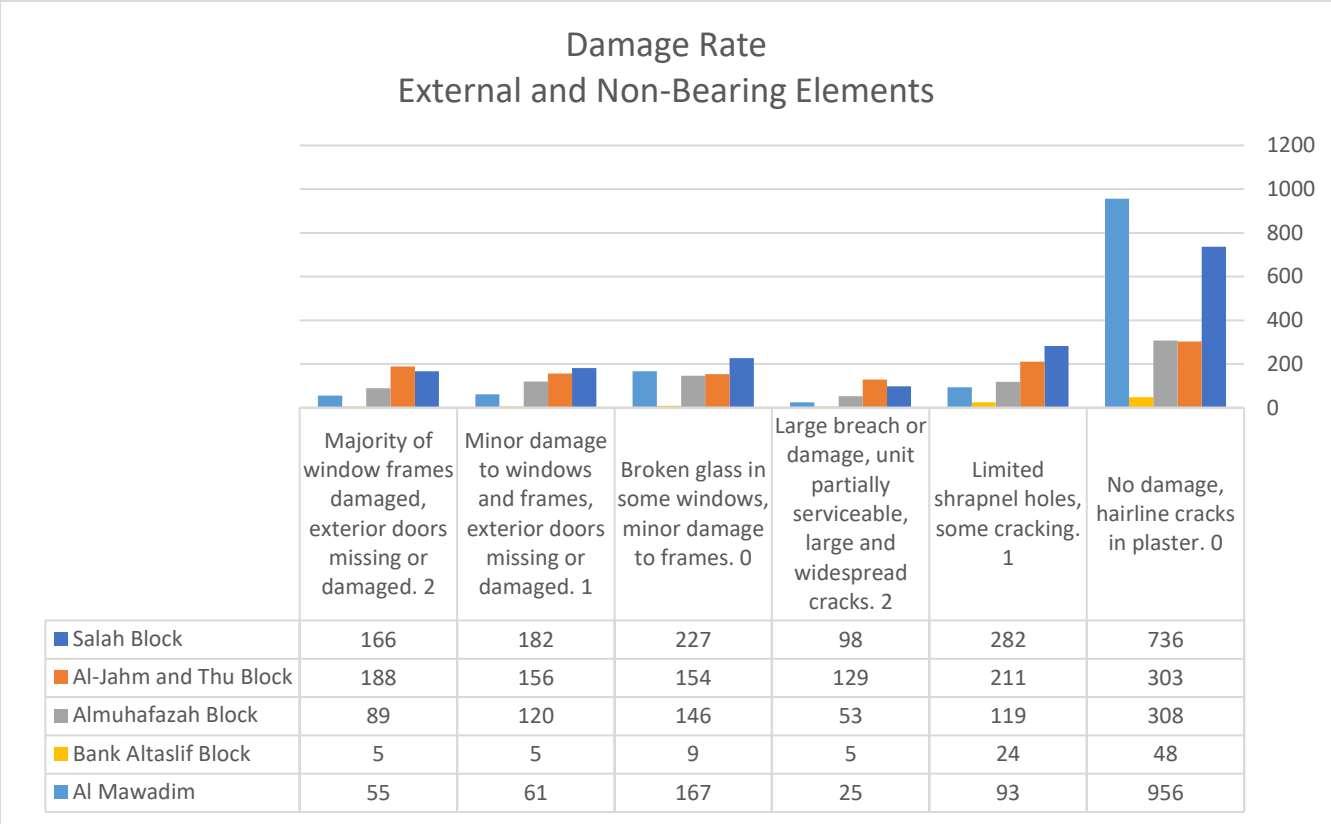
Results of Damage Analysis

- **Salah Block**: In **Slight or No Damage**, the primary result is no significant damage (result 0, 172). **Minor Damage (Partial)** records limited damage (result 1, 242) and repairable issues (result 2, 67).
    - **Major Damage (Partial)** shows repairable damage (result 2, 18) and severe outcomes (result 4, 6). **Severe Damage** includes severe issues (result 4, 21), while **Fully Destroyed** areas are dominated by complete structural failure (result 4, 44).
- **Al-Jahmaliah and Thuabat Block**: **Slight or No Damage** shows minimal damage (result 0, 56). **Minor Damage (Partial)** results are higher in limited damage (result 1, 138).
    - **Major Damage (Partial)** includes cases of repairable and **Severe Damage** (result 3 and 4). **Fully Destroyed** areas primarily show severe outcomes (result 4, 38).
- **Almuhafazah Block**: **Slight or No Damage** primarily reports no significant damage (result 0, 91). **Minor Damage (Partial)** shows result 1 (128) and repairable issues (result 2, 26).
    - **Major Damage (Partial)** shifts to repairable and **Severe Damage** (result 3 and 4). **Fully Destroyed** has minimal instances.
- **Bank Altaslif Block**: **Slight or No Damage** shows limited data, with hairline cracks most common (result 0, 34).
    - **Minor Damage (Partial)** includes limited damage (result 1, 22), with no major outcomes reported in higher damage levels.
- **Al Mawadim Block**: **Slight or No Damage** has minimal damage (result 0, 521).
    - **Minor Damage (Partial)** results include limited damage (result 1, 212) and repairable interior damage (result 2, 9). **Major Damage (Partial)** records some repairable issues and severe outcomes (result 4, 2). **Severe Damage** and **Fully Destroyed** have minimal severe results.

Overall, observations indicate that across **Salah** and **Sabir Al Mawadim** districts, hairline cracks and limited damage are most common in **Slight or No Damage** and **Minor Damage (Partial)** categories. As damage severity increases, the results shift towards limited shrapnel damage (result 1) and large, repairable damage (result 2). **Severe Damage** and **Fully Destroyed** areas frequently report extensive and **Severe Damage**, indicating significant issues with internal and non-bearing elements.

6.5.5 External and Non-Bearing Elements

This graph illustrates the damage rates of external and non-bearing elements across various blocks, detailing the extent of damage from minor issues such as window frame damage to significant breaches affecting the overall structural integrity. The data categorizes the frequency of different damage levels, providing a comparative overview of the condition of external and non-bearing elements across the assessed areas.



	Majority of window frames damaged, exterior doors missing or damaged. 2	Minor damage to windows and frames, exterior doors missing or damaged. 1	Broken glass in some windows, minor damage to frames. 0	Large breach or damage, unit partially serviceable, large and widespread cracks. 2	Limited shrapnel holes, some cracking. 1	No damage, hairline cracks in plaster. 0
Salah Block	166	182	227	98	282	736
Al-Jahm and Thu Block	188	156	154	129	211	303
Almuhafazah Block	89	120	146	53	119	308
Bank Altaslif Block	5	5	9	5	24	48
Al Mawadim	55	61	167	25	93	956

Chart 6-22

Overview of by Blocks:

- **Salah Block**:
  - **Salah Block**: In **Slight or No Damage**, most structures have no significant damage (147), while limited shrapnel holes (11) are also recorded.
  - **Minor Damage (Partial)** sees a significant number of structures with no damage (540) and limited damage (226), but a smaller number with more severe, repairable damage (67).
  - **Major Damage (Partial)** has decreasing cases of no damage (35) and more instances of repairable damage (30).
  - **Severe Damage** shows a further decline, with cases of limited and **Severe Damage** (31). **Fully Destroyed** areas indicate **Severe Damage** (42) as the main outcome.
- **Al-Jahmaliah and Thuabat Block**: **Slight or No Damage** primarily shows no significant damage (46).
  - **Minor Damage (Partial)** has many structures with no damage (228) but significant numbers showing limited damage (170) and repairable damage (76).
  - **Major Damage (Partial)** sees fewer cases of no damage (24), with more cases of extensive damage (29).
  - **Severe Damage** has limited cases of **Major Damage (Partial)** (28), while **Fully Destroyed** areas show a higher occurrence of severe outcomes (39).
- **Almuhafazah Block**: **Slight or No Damage** primarily reports no damage (70).
  - **Minor Damage (Partial)** includes cases with no damage (215) and limited damage (88).
  - **Major Damage (Partial)** has repairable damage (26). **Severe Damage** and **Fully Destroyed** areas record minimal cases, mostly showing **Severe Damage** (4).
- **Bank Altaslif Block**: **Slight or No Damage** shows minimal cases with no significant damage (16).
  - **Minor Damage (Partial)** has low figures with limited damage (23). Higher damage levels report minimal data.
- **Al Mawadim Block**: **Slight or No Damage** shows a high count of cases with no damage (456).
  - **Minor Damage (Partial)** records many structures with no damage (473) and fewer with repairable damage (24).
  - **Major Damage (Partial)** shows a significant reduction, with a limited number of cases having repairable damage (39). **Severe Damage** and **Fully Destroyed** categories report few **Severe Damage** cases (12).

Results of Damage Analysis

- **Salah Block**: In **Slight or No Damage**, the primary result is no significant damage (result 0, 138). **Minor Damage (Partial)** highlights result 0 (418) as the most frequent outcome, with a significant number showing result 2 (107).
    - **Major Damage (Partial)** records an increase in result 2 (44). **Severe Damage** shows an increase in repairable damage (result 2, 31), and **Fully Destroyed** areas are dominated by severe outcomes (result 2, 42).
- **Al-Jahmaliah and Thuabat Block**: **Slight or No Damage** mainly shows result 0 (43). **Minor Damage (Partial)** has a balanced distribution of result 0 (143) and result 2 (138).
    - **Major Damage (Partial)** shifts toward repairable damage (result 2, 47). **Severe Damage** results show more significant repairable issues (result 2, 28), while **Fully Destroyed** areas primarily show severe outcomes (result 2, 39).
- **Almuhafazah Block**: **Slight or No Damage** mostly reports result 0 (70). **Minor Damage (Partial)** has result 0 (219) and result 2 (51).
    - **Major Damage (Partial)** has a higher count of result 2 (49). **Severe Damage** and **Fully Destroyed** levels show minimal occurrences.
- **Bank Altaslif Block**: **Slight or No Damage** primarily records no significant damage (result 0, 17). **Minor Damage (Partial)** results are split between result 0 (19) and limited repairable damage (result 1). Higher damage levels have negligible data.
- **Al Mawadim Block**: **Slight or No Damage** reports result 0 (449). **Minor Damage (Partial)** results include many cases with result 0 (482) and some with result 2 (36).
    - **Major Damage (Partial)** records limited cases of repairable damage (result 2, 18). **Severe Damage** and **Fully Destroyed** have minimal cases but show severe outcomes (result 2, 12).

Overall, observations indicate that across **Salah** and **Sabir Al Mawadim** districts, no damage or hairline cracks are most common in **Slight or No Damage** and **Minor Damage (Partial)** categories. As damage severity increases, the results shift towards limited shrapnel damage (result 1) and large, repairable damage (result 2). **Severe Damage** and **Fully Destroyed** areas frequently report extensive and **Severe Damage**, indicating significant issues with external non-bearing elements.

6.6 Rehabilitation Required:

6.6.1 Estimated Debris Removal Cost

This graph illustrates the estimated costs for rubble clearance categorized by different cost ranges. It provides an overview of the financial implications associated with debris removal in the assessed areas, reflecting how varying levels of damage impact the costs involved in recovery efforts.

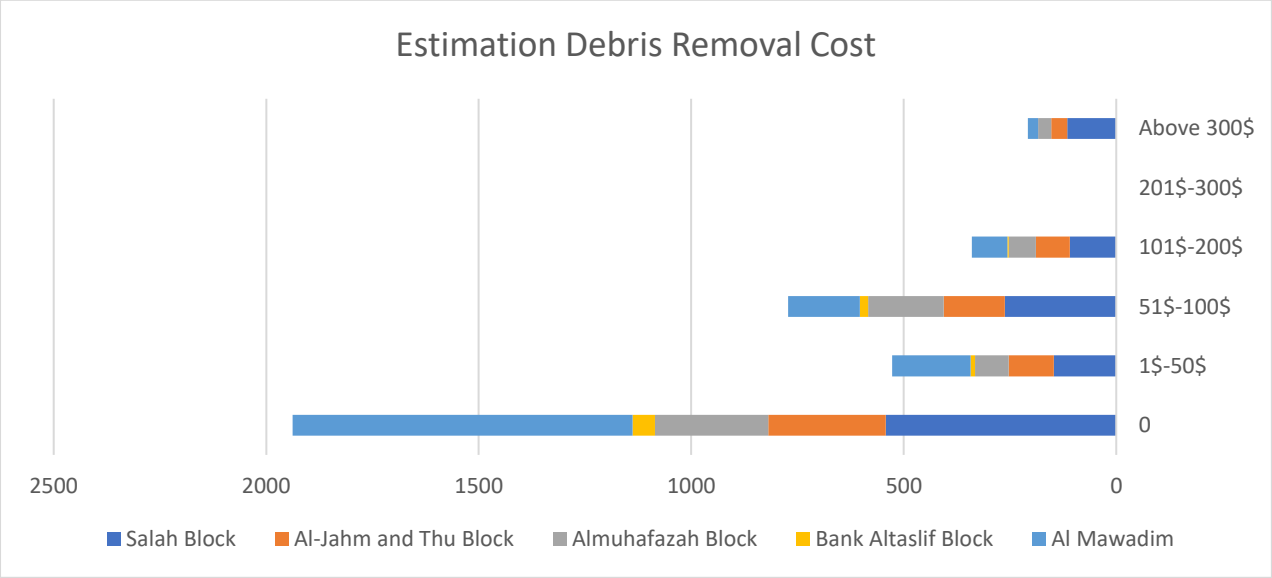


Chart 6-23

Overview of by Blocks:

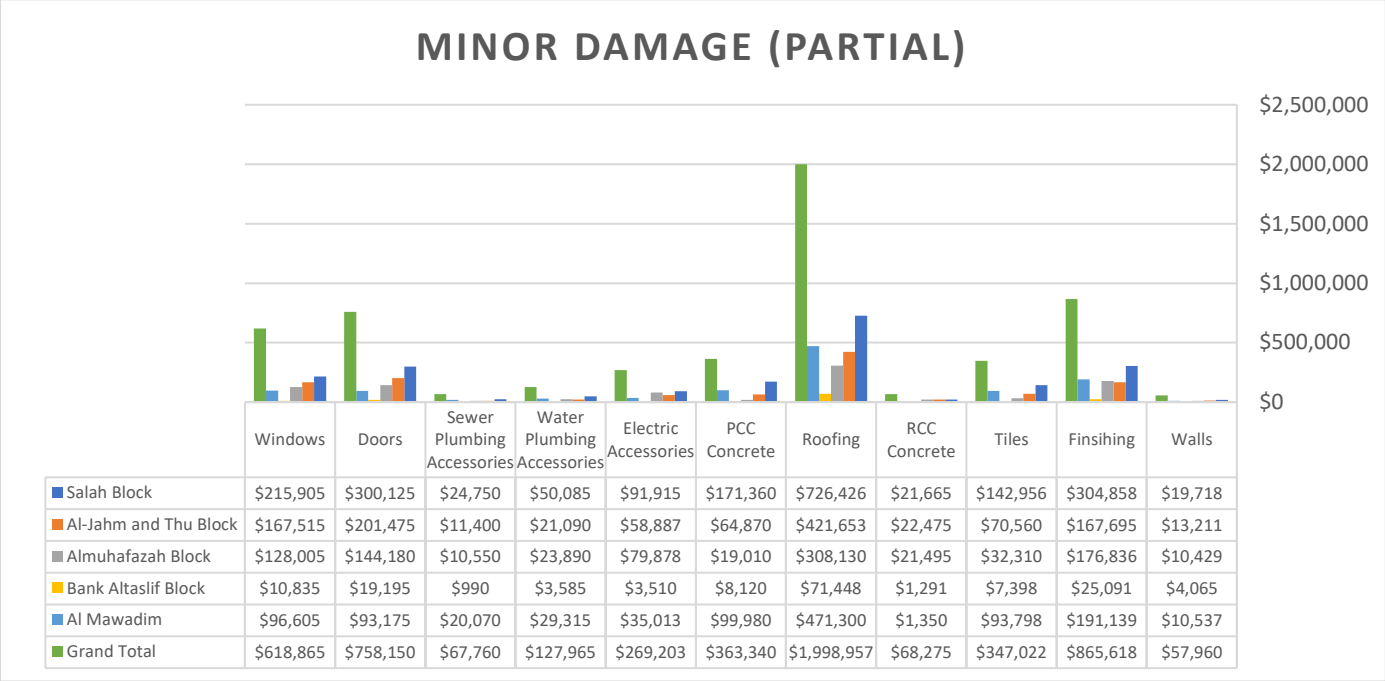
- **Salah Block**:
    - **Salah Block**: In areas with **Slight or No Damage**, 182 instances report no cost ($0) for rubble clearance. For **Minor Damage (Partial)**, costs are distributed across various ranges: 133 cases in the $1-$50 range and 239 in the $51-$100 range. Higher cost categories include $101-$200 (75 cases), with smaller numbers in the $201-$300 and above $300 ranges (74 and 18 cases, respectively).
    - **Major Damage (Partial)** shows increases in the $51-$100 (19 cases) and $101-$200 (28 cases) ranges. In **Severe Damage**, there are varied costs, with 23 cases reporting $101-$200. **Fully Destroyed** areas primarily report no cost (52 cases).
- **Al-Jahmaliah and Thuabat Block**: In **Slight or No Damage**, most instances report no cost (64). **Minor Damage (Partial)** includes significant numbers in the $1-$50 range (95) and $51-$100 (121), with fewer instances in higher categories like $101-$200 (58).
    - **Major Damage (Partial)** highlights 20 cases in the $51-$100 range, with fewer in $101-$200. **Severe Damage** has lower counts, primarily in the $1-$50 and $51-$100 ranges, while **Fully Destroyed** areas report a small number with no cost (45).
- **Almuhafazah Block**: In **Slight or No Damage**, most cases show no cost (91). **Minor Damage (Partial)** has 64 in the $1-$50 range and 168 in $51-$100.
    - **Major Damage (Partial)** indicates fewer cases, with notable costs in $101-$200 (26). **Severe Damage** and **Fully Destroyed** areas report minimal cases, primarily at $0 and low numbers in $1-$50.
- **Bank Altaslif Block**: Records fewer data points, with **Slight or No Damage** having no cost (35). **Minor Damage (Partial)** shows small counts in the $1-$50 (11) and $51-$100 (18) ranges, with minimal higher costs.
- **Al Mawadim Block**: In **Slight or No Damage**, all cases report no cost (526). **Minor Damage (Partial)** includes 169 in the $1-$50 range and 167 in the $51-$100 range.
    - **Major Damage (Partial)** shows reduced numbers, with a few cases in $1-$50 (12) and $51-$100 (2). **Severe Damage** and **Fully Destroyed** categories report minimal numbers, primarily in lower-cost brackets ($1-$50).

Overall Observations

Across **Salah** and **Sabir Al Mawadim** districts, most areas with **Slight or No Damage** report no cost for rubble clearance. In **Minor Damage (Partial)**, there is significant distribution in the $1-$50 and $51-$100 ranges. Higher damage levels, such as **Major Damage (Partial)** and **Severe Damage**, show an increase in the $101-$200 range, but fewer cases in higher cost brackets. **Fully Destroyed** areas primarily report $0 cost, with few instances in the higher cost categories. This data suggests that as damage severity increases, the associated costs for rubble clearance tend to spread across mid-range cost brackets, with select cases reaching higher levels.

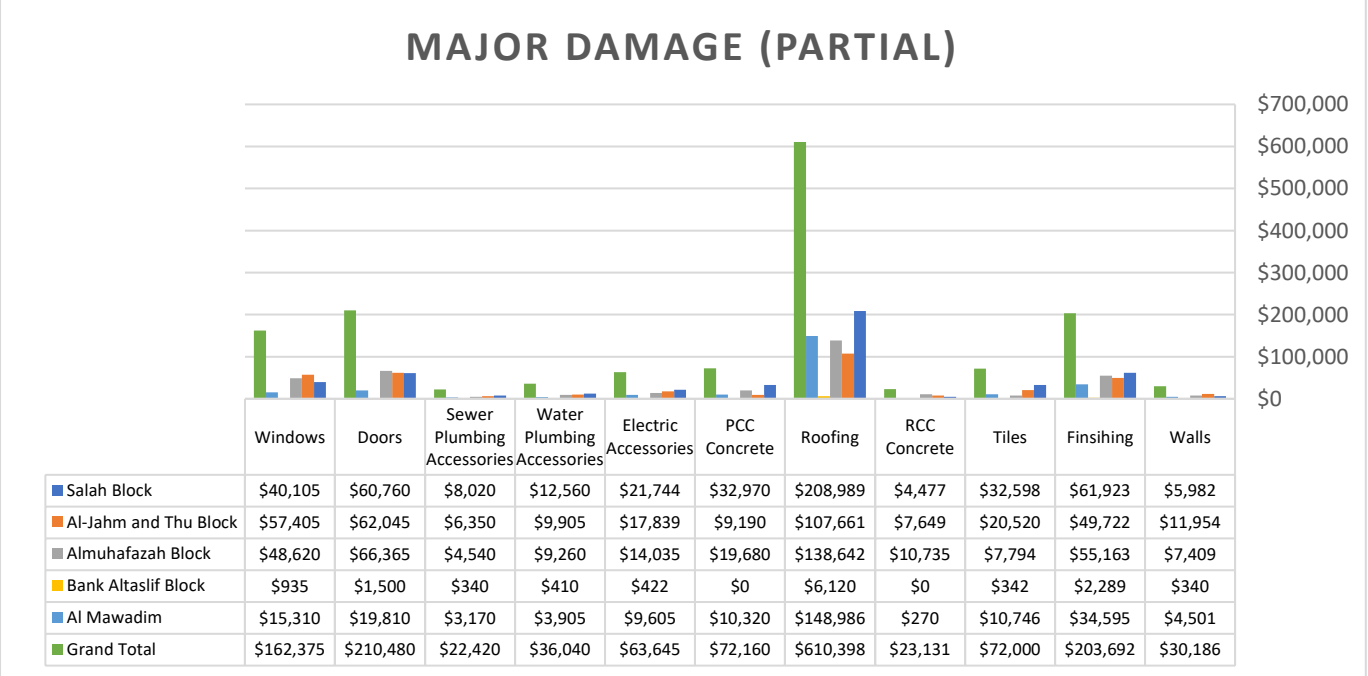
6.6.2 Bills of Quantities (BoQs)

Graphs depicting cost estimates for different damage levels across various building elements are included for clarity and detailed analysis.



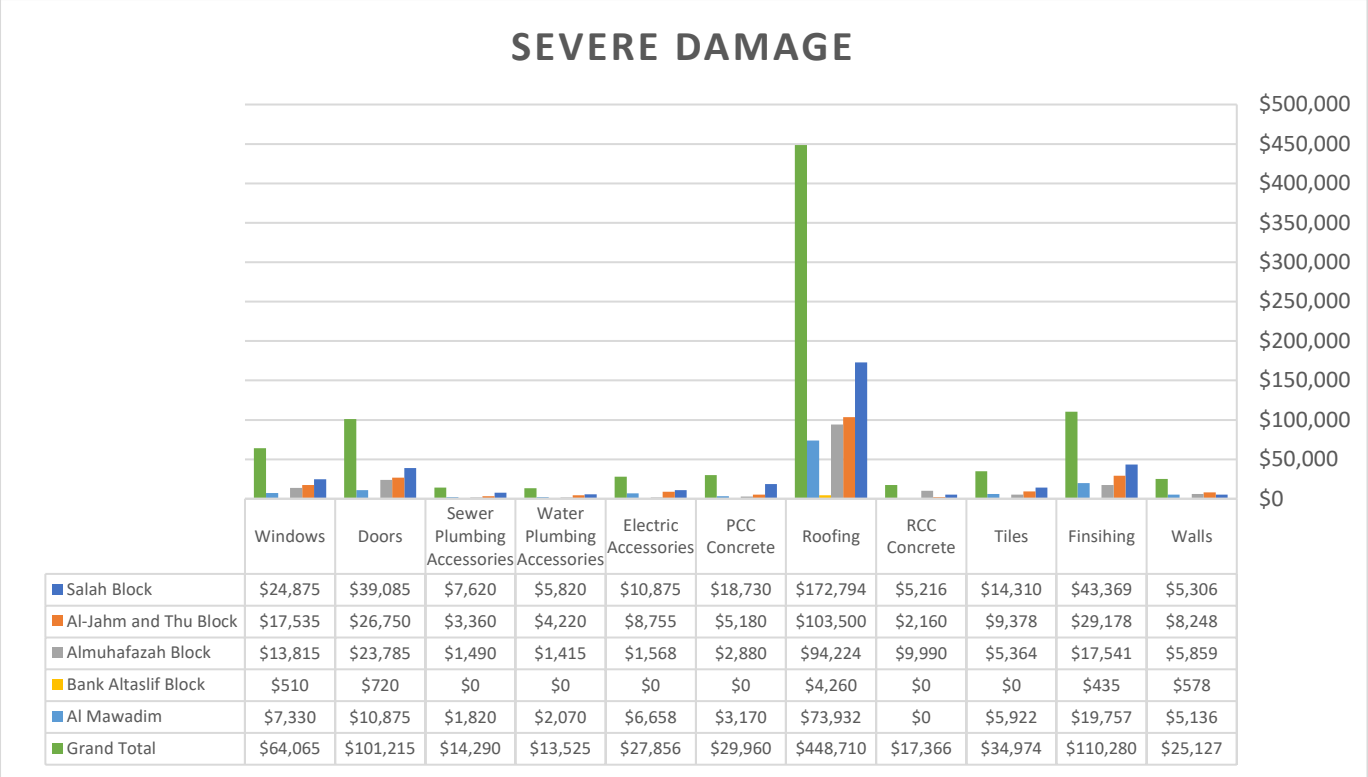
	Windows	Doors	Sewer Plumbing Accessories	Water Plumbing Accessories	Electric Accessories	PCC Concrete	Roofing	RCC Concrete	Tiles	Finsihing	Walls
Salah Block	$215,905	$300,125	$24,750	$50,085	$91,915	$171,360	$726,426	$21,665	$142,956	$304,858	$19,718
Al-Jahm and Thu Block	$167,515	$201,475	$11,400	$21,090	$58,887	$64,870	$421,653	$22,475	$70,560	$167,695	$13,211
Almuhafazah Block	$128,005	$144,180	$10,550	$23,890	$79,878	$19,010	$308,130	$21,495	$32,310	$176,836	$10,429
Bank Altaslif Block	$10,835	$19,195	$990	$3,585	$3,510	$8,120	$71,448	$1,291	$7,398	$25,091	$4,065
Al Mawadim	$96,605	$93,175	$20,070	$29,315	$35,013	$99,980	$471,300	$1,350	$93,798	$191,139	$10,537
Grand Total	$618,865	$758,150	$67,760	$127,965	$269,203	$363,340	$1,998,957	$68,275	$347,022	$865,618	$57,960

Chart 6-24



	Windows	Doors	Sewer Plumbing Accessories	Water Plumbing Accessories	Electric Accessories	PCC Concrete	Roofing	RCC Concrete	Tiles	Finsihing	Walls
Salah Block	$40,105	$60,760	$8,020	$12,560	$21,744	$32,970	$208,989	$4,477	$32,598	$61,923	$5,982
Al-Jahm and Thu Block	$57,405	$62,045	$6,350	$9,905	$17,839	$9,190	$107,661	$7,649	$20,520	$49,722	$11,954
Almuhafazah Block	$48,620	$66,365	$4,540	$9,260	$14,035	$19,680	$138,642	$10,735	$7,794	$55,163	$7,409
Bank Altaslif Block	$935	$1,500	$340	$410	$422	$0	$6,120	$0	$342	$2,289	$340
Al Mawadim	$15,310	$19,810	$3,170	$3,905	$9,605	$10,320	$148,986	$270	$10,746	$34,595	$4,501
Grand Total	$162,375	$210,480	$22,420	$36,040	$63,645	$72,160	$610,398	$23,131	$72,000	$203,692	$30,186

Chart 6-25



	Windows	Doors	Sewer Plumbing Accessories	Water Plumbing Accessories	Electric Accessories	PCC Concrete	Roofing	RCC Concrete	Tiles	Finsihing	Walls
Salah Block	$24,875	$39,085	$7,620	$5,820	$10,875	$18,730	$172,794	$5,216	$14,310	$43,369	$5,306
Al-Jahm and Thu Block	$17,535	$26,750	$3,360	$4,220	$8,755	$5,180	$103,500	$2,160	$9,378	$29,178	$8,248
Almuhafazah Block	$13,815	$23,785	$1,490	$1,415	$1,568	$2,880	$94,224	$9,990	$5,364	$17,541	$5,859
Bank Altaslif Block	$510	$720	$0	$0	$0	$0	$4,260	$0	$0	$435	$578
Al Mawadim	$7,330	$10,875	$1,820	$2,070	$6,658	$3,170	$73,932	$0	$5,922	$19,757	$5,136
Grand Total	$64,065	$101,215	$14,290	$13,525	$27,856	$29,960	$448,710	$17,366	$34,974	$110,280	$25,127

Chart 6-26

This analysis highlights the estimated repair costs for various building elements across damage levels in **Salah** and **Sabir Al Mawadim** districts:

- **Salah Block**:
  - **Salah Block**: In **Minor Damage (Partial)**, the highest repair costs are in roofing ($726,426) and finishing ($304,858), followed by RCC concrete ($142,956).
  - **Major Damage (Partial)** shows notable repair costs in roofing ($208,989) and finishing ($61,923).
  - **Severe Damage** records lower total repair costs, with roofing ($172,794) being the highest among elements.
  - The total repair costs across all damage levels in **Salah Block** amount to $2,708,964, reflecting significant repair needs in areas with partial and **Severe Damage**.
- **Al-Jahmaliah and Thuabat Block**: In **Minor Damage (Partial)**, substantial costs are noted in roofing ($421,653) and finishing ($167,695).
  - **Major Damage (Partial)** incurs notable expenses in roofing ($107,661) and finishing ($49,722).
  - **Severe Damage** has expenses in roofing ($103,500).
  - The total cost across all damage levels in **Al-Jahmaliah and Thuabat Block** sums to $1,806,715.
- **Almuhafazah Block**: In **Minor Damage (Partial)**, significant repair costs are in roofing ($308,130) and finishing ($176,836).
  - **Major Damage (Partial)** shows lower costs in roofing ($138,642) and finishing ($55,163).
  - The total repair costs across damage levels in **Almuhafazah Block** are approximately $1,473,510.
- **Bank Altaslif Block**: In **Minor Damage (Partial)**, roofing ($71,448) incurs moderate costs, with the total for repairs in **Bank Altaslif Block** standing at $166,164, indicating that repairs needed are less extensive compared to other blocks.
- **Al Mawadim Block**: In **Minor Damage (Partial)**, substantial costs occur, particularly in roofing ($471,300) and finishing ($191,139).
  - **Major Damage (Partial)** shows expenses mainly in roofing ($148,986).
  - **Severe Damage** indicates fewer costs, with roofing ($73,932) still notable.
  - The total cost for **Al Mawadim Block** across all damage levels is approximately $1,614,457.

Comparative charts illustrate the distribution of costs per block, providing insights into the specific repair needs across the assessed areas.

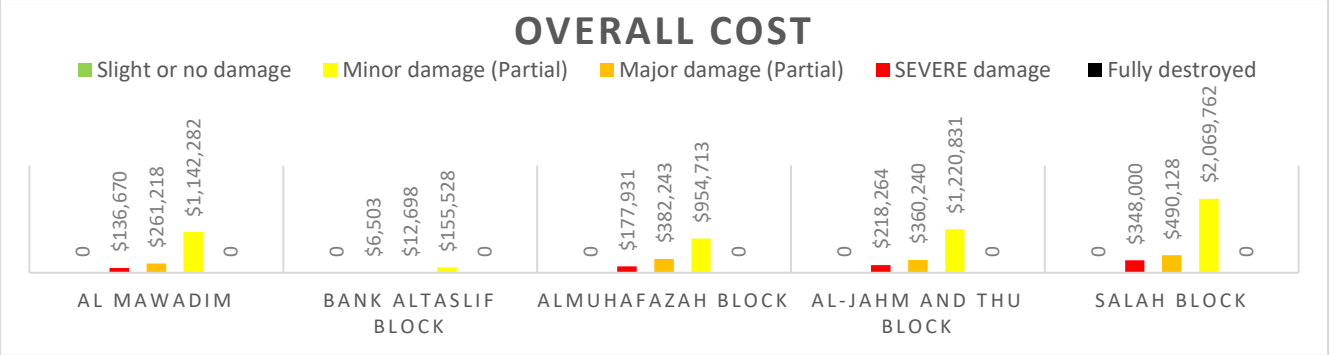


Chart 6-27

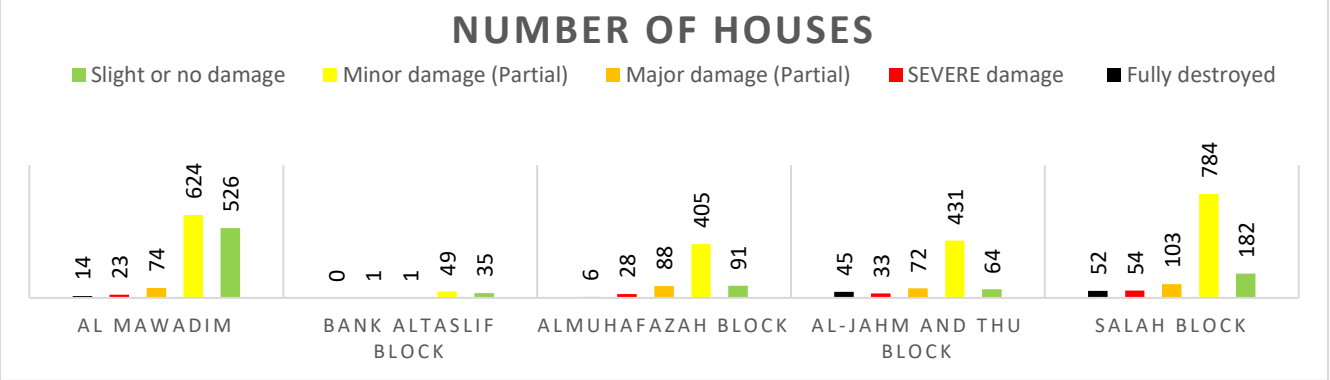


Chart 6-28

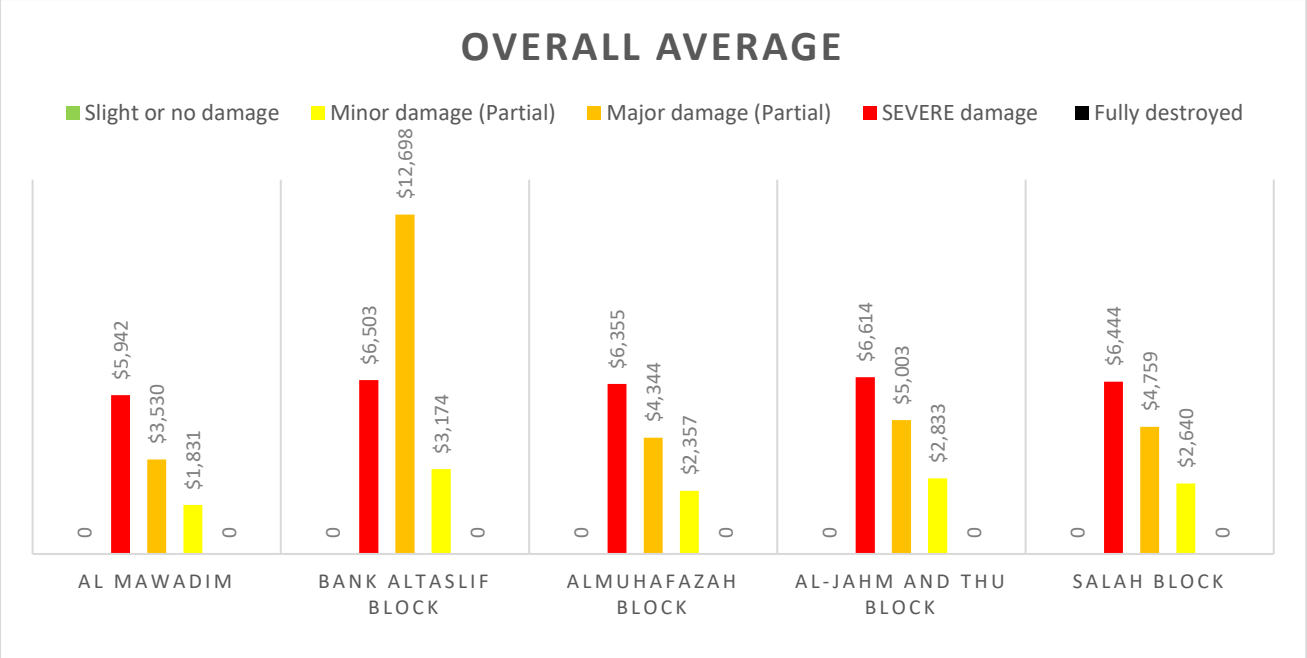


Chart 6-29

Total Costs Across Districts

The total repair cost for the Salah and Sabir Al Mawadim districts amounts to **$7,937,009**, covering the damage levels of Minor Damage (Partial), Major Damage (Partial), and Severe Damage. Slightly damaged houses and fully collapsed houses are not included in this total as they fall outside the scope of significant repair interventions. Slightly damaged houses require minimal or no repair work, while fully collapsed houses need complete reconstruction.

The **Shelter Cluster's focus** is on **Minor Damage (Partial)**, which accounts for the largest share of the total cost at **69.84%** or **$5,543,115**. The main cost drivers for this category are roofing, finishing, and windows, which amount to $1,998,957, $865,618, and $618,865, respectively. The block-specific costs for Minor Damage (Partial) are as follows: Salah Block accounts for $1,576,208, Al-Jahmaliah and Thuabat Block for $1,249,693, Almuhafazah Block for $953,923, Bank Altaslif Block for $176,088, and Al Mawadim Block for $1,587,203.

For **Major Damage (Partial)**, the total cost amounts to **$1,506,526**, which represents **18.98%** of the overall repair costs. Roofing, finishing, and doors are the primary cost drivers, amounting to $610,398, $203,692, and $210,480, respectively. The block-specific costs for Major Damage (Partial) include $456,488 for Salah Block, $362,270 for Al-Jahmaliah and Thuabat Block, $353,703 for Almuhafazah Block, $12,812 for Bank Altaslif Block, and $321,253 for Al Mawadim Block.

Severe Damage accounts for the remaining **11.18%** of the total costs, amounting to **$887,368**. The key cost drivers in this category are roofing, finishing, and doors, which total $448,710, $110,280, and $101,215, respectively. The block-specific costs for Severe Damage are $348,930 for Salah Block, $219,114 for Al-Jahmaliah and Thuabat Block, $177,961 for Almuhafazah Block, $6,103 for Bank Altaslif Block, and $135,260 for Al Mawadim Block.

It is important to note that the total repair costs do not include the categories of slightly damaged houses or fully collapsed houses. Slightly damaged houses require minimal interventions and are excluded from the financial estimates, while fully collapsed houses are beyond repair and require complete reconstruction, which is outside the scope of this report.

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7. Challenges and Limitations

This section outlines the key challenges and limitations encountered during the assessment process, which may impact the accuracy and comprehensiveness of the findings:

7.1 Time Constraints

- **Description of the Challenge**: The assessment period was limited to one and a half months for evaluating over 4,000 houses. This timeframe was insufficient for conducting thorough assessments, especially given the scale and complexity of the task.
- **Impact on Activities**: The tight schedule led to rushed evaluations, potentially compromising the quality of data collected. Critical details regarding the extent of damage and specific needs of affected households may have been overlooked due to the pressure to complete the assessments quickly.
- **Mitigation Strategies**:
    - Prioritized high-impact areas for assessment to ensure critical regions were evaluated thoroughly within the limited timeframe.
    - Developed streamlined assessment protocols to maximize efficiency during data collection.

7.2 Accessibility and Security Concerns

- **Description of the Challenge**: Ongoing conflict in **Taiz** posed significant security risks for assessment teams. Access to certain areas was restricted due to travel limitations and threats of violence, further complicating the assessment process.
- **Impact on Activities**: Security concerns limited the ability to conduct comprehensive data collection in all neighborhoods, leading to incomplete assessments and delays in recovery planning. This also strained relationships with community members who were eager to participate in the assessment.
- **Mitigation Strategies**:
    - Collaborated with local authorities to identify safer routes for assessments.
    - Employed local guides familiar with the area to navigate securely.
    - Established real-time communication with security personnel for timely updates.

7.3 Data Accessibility and Limitations

- **Description of the Challenge**: Local authorities were not well-prepared to provide accurate and timely data. Officials were overwhelmed with requests, which led to delays and difficulties in obtaining complete lists of damaged houses. This resulted in duplicated records and inclusion of houses that were reported to have no damage.
- **Impact on Activities**: These issues hindered effective data collection and delayed recovery planning, complicating efforts to understand the full extent of damage within the community.
- **Mitigation Strategies**:
    - Established clear communication channels and deadlines with local authorities to facilitate timely data sharing.
    - Utilized the **NMO** Data Information Management system to cross-check for duplicates and verify records.
    - Conducted field visits and interviews for data verification and engaged local authorities and community representatives to enhance understanding and build trust.

7.4 Capacity Gaps Among Field Team

- **Description of the Challenge**: Despite training local partners, varying levels of expertise among team members created challenges in data collection and analysis. Some team members struggled with the technical aspects of assessment tools, affecting the quality of gathered data.
- **Impact on Activities**: These capacity gaps hindered the overall effectiveness of the assessments, resulting in inconsistent data quality and delays in recovery planning.
- **Mitigation Strategies**:
    - Implemented targeted training sessions to enhance technical skills, particularly in evaluating house damage and using assessment tools effectively.
    - Fostered a mentorship approach within the teams to promote knowledge sharing and skill development among less experienced members.

7.5 Resource Limitations

- **Description of the Challenge**: Limited financial and logistical resources significantly hindered the scale and speed of the house damage assessment. The need for additional enumerators and technical experts was evident, but budget constraints restricted recruitment efforts.
- **Impact on Activities**: Resource limitations affected the thoroughness of the assessments, leading to some communities being under-assessed. This incomplete data collection hindered the ability to fully understand the extent of damage and specific needs of affected households, ultimately delaying recovery planning and interventions.
- **Mitigation Strategies**:
    - Prioritized key areas for assessment to maximize the impact of available resources and ensure that the most affected areas received adequate attention.
    - Leveraged local knowledge and community involvement to supplement the efforts of the limited enumerators and technical experts.

7.6 Variability in Damage Assessment

- **Description of the Challenge**: Differences in the assessment team's interpretation of damage severity led to inconsistencies in categorizing damage levels. This subjectivity could affect the comparability of results across different teams and areas.
- **Impact on Activities**: Variability in assessments may have resulted in skewed data, complicating recovery efforts and the allocation of resources.
- **Mitigation Strategies**:
    - Aimed to standardize assessment protocols and ensure thorough training in damage categorization techniques to enhance consistency in evaluations.
    - Conducted regular calibration meetings to discuss and align on assessment criteria among team members.

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8. NMO Technical Capacity

This section evaluates the technical capacity of **Nahda Makers Organization** (**NMO**) in conducting house damage assessments and supporting rehabilitation efforts in **Taiz**.

8.1 Extensive Experience in House Rehabilitation

NMO has been actively engaged in house rehabilitation for over two years, successfully rehabilitating more than 1,500 houses under its projects. This extensive experience equips the organization with valuable insights into the challenges and best practices associated with residential rehabilitation in conflict-affected areas.

8.2 Qualified and Skilled Personnel

NMO boasts a team of more than 10 qualified engineers who possess strong knowledge and experience in addressing various and complex technical problems related to house rehabilitation. Their expertise enables **NMO** to conduct thorough assessments and implement effective solutions tailored to the specific needs of each damaged structure.

8.3 Capacity Building Initiatives

In addition to its operational capabilities, **NMO** is committed to capacity building through training programs. Over the past two years, the organization has trained more than 20 postgraduate engineers, aligning with its goal of enhancing local expertise in rehabilitation efforts. Many of these trained engineers have actively participated in the recent damage assessments, contributing their knowledge and skills to the evaluation process.

8.4 Utilization of Advanced Tools

NMO leverages digital tools, such as **KOBO**, for data collection and management, enhancing the efficiency and accuracy of assessments. This systematic approach allows for organized documentation of findings and facilitates the generation of Bills of Quantities (**BoQs**) for rehabilitation.

8.5 Established Partnerships

NMO has developed strong collaborations with local authorities and the **Shelter Cluster**, enabling access to critical information and resources necessary for effective assessment and recovery planning.

8.6 Conclusion

NMO's robust technical capacity, underscored by its extensive experience in house rehabilitation, qualified personnel, and commitment to capacity building, positions the organization as a key player in addressing the housing crisis in **Taiz**. By leveraging its strengths and continuing to enhance its capabilities, **NMO** can effectively conduct thorough assessments and implement impactful rehabilitation strategies, ultimately supporting the recovery of affected households.

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9. Recommendations

Based on the assessment findings and the challenges encountered during the evaluation process, the following recommendations are proposed to enhance the effectiveness of recovery and rehabilitation efforts in **Taiz**:

9.1 Prioritize Rehabilitation of Minor Damage (Partial) Houses

Given that a significant majority of assessed houses fall under the "**Minor Damage (Partial)**" category, it is recommended to prioritize these properties for rehabilitation. Addressing these cases promptly will facilitate faster recovery for affected households and help restore community stability.

9.2 Enhance Collaboration with Local Authorities

Strengthen partnerships with local authorities to improve data accuracy and accessibility. Establish regular communication channels to ensure timely sharing of information regarding damaged houses and the status of rehabilitation efforts. This will help minimize duplication and improve the overall coordination of recovery interventions.

9.3 Implement Comprehensive Training Programs

Develop and implement ongoing training programs for **NMO** engineers and local partners to enhance their technical skills in damage assessment and rehabilitation practices. These programs should focus on advanced techniques, assessment tools, and damage categorization to ensure consistent and accurate evaluations across teams.

9.4 Expand Capacity Building Initiatives

Continue the capacity-building initiatives for postgraduate engineers by providing them with hands-on experience in assessments and rehabilitation projects. Encourage their involvement in future evaluations and training sessions to foster local expertise and ensure sustainability in recovery efforts.

9.5 Establish Adequate Planning and Time Management

Implement a structured planning framework that allows for sufficient time to conduct thorough assessments. Allocate dedicated timelines for each phase of the assessment process, ensuring that:

- Initial planning and coordination with local authorities are completed well in advance.
- Field assessments are scheduled with adequate time to revisit and verify data if necessary.
- Data analysis and reporting are given ample time to ensure high-quality output and accurate conclusions.

9.6 Increase Resource Allocation for Assessments

Advocate for increased financial and logistical resources to expand the scale of assessments and rehabilitation projects. This includes recruiting additional enumerators and technical experts to ensure thorough evaluations and timely interventions in affected areas.

9.7 Establish Clear Assessment Protocols

Standardize assessment protocols to reduce variability in damage categorization among team members. Regular calibration meetings should be held to align team members on assessment criteria, ensuring that all evaluations are consistent and comparable.

9.8 Utilize Technology for Data Management

Enhance the use of digital tools and data management systems to streamline data collection and analysis. Implement real-time data entry and verification processes to reduce reliance on self-reported data and minimize errors associated with duplication.

9.9 Focus on Community Engagement

Engage community members actively in the rehabilitation process by soliciting their input and involving them in decision-making. This will not only strengthen relationships but also empower affected households, ensuring that rehabilitation efforts are aligned with their needs and priorities.

9.10 Monitor and Evaluate Recovery Efforts

Establish a framework for monitoring and evaluating the impact of rehabilitation efforts regularly. This should include assessing the effectiveness of interventions and the satisfaction of affected households with the recovery process, allowing for adaptive management and continuous improvement.

9.11 Address Security and Accessibility Concerns

Develop strategies to address security and accessibility issues that may hinder assessment and rehabilitation efforts. This could involve collaborating with local security personnel to identify safe routes and times for conducting assessments in conflict-affected areas.

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10. Conclusion

This report provides a comprehensive assessment of housing damage in Taiz, Yemen, highlighting the severe impact of ongoing conflict on residential infrastructure and the pressing need for effective recovery interventions. The evaluation of 3,785 houses revealed widespread damage, with a significant portion categorized as "Minor Damage (Partial)." This highlights the urgent need to prioritize rehabilitation efforts to restore safe and habitable living conditions for affected households.

In addition to assessing housing damage, this report underscores the critical gaps in service infrastructure across key sectors such as education, health, and livelihoods. The ongoing conflict has severely disrupted community life, forcing residents to flee and undermining access to essential services. Schools, health facilities, and markets have been significantly affected, leaving communities with limited access to quality education, regular healthcare, and livelihood opportunities. Addressing these gaps is essential for fostering sustainable recovery and resilience.

The assessment methodology utilized, including coordination with local authorities and the Shelter Cluster, enabled a systematic evaluation of the damage while incorporating Geographic Information System (GIS) technology to enhance strategic recovery planning. However, challenges such as security risks, limited access to some areas, and insufficient collaboration with overwhelmed local authorities affected the completeness and accuracy of the findings. These issues highlight the need for improved communication, resource allocation, and stakeholder engagement in future recovery efforts.

Despite these challenges, the technical expertise and capacity of Nahda Makers Organization (NMO) were evident. With a proven record of rehabilitating over 1,500 houses and training more than 20 postgraduate engineers, NMO is well-positioned to play a pivotal role in the recovery process. Building on these strengths, the report recommends a holistic approach that not only prioritizes the rehabilitation of "Minor Damage (Partial)" houses but also emphasizes addressing gaps in essential services.

Key recommendations include:

- Prioritizing the repair and restoration of housing categorized under Minor and Major Damage (Partial), which represent 89% of the repair costs.
- Investing in education by repairing schools, providing learning materials, and addressing barriers to access.
- Enhancing health services by rehabilitating health facilities and establishing mobile clinics to reach underserved populations.
- Revitalizing livelihoods through job creation, vocational training programs, and market accessibility improvements.
- Strengthening collaboration among local authorities, NGOs, and community organizations to ensure effective and inclusive recovery strategies.

In conclusion, the recovery and rehabilitation of Taiz's infrastructure require a coordinated, multi-sectoral approach involving all stakeholders. By addressing the immediate needs of housing and service infrastructure, fostering community resilience, and leveraging NMO's capacity, there is a viable pathway to restoring normalcy and stability in Taiz. These efforts will contribute to rebuilding not just houses but also the foundations of a thriving and resilient community, even in the face of ongoing adversity.

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11. Photos:

Fig 11-1 During a field visit in Saber Al Mawadim, Taiz, an enumerator verifies house damage with the owner, inputting crucial information via KoBO.

Fig 11-2 Fully damaged houses in Saber Al Mawadim, Taiz, overgrown with vegetation and deemed unsuitable for living.

Fig 11-3 NMO enumerator engages with the house owner in Saber Al Mawadim, Taiz, as he inputs information using KoBO, ensuring accurate data collection for ongoing assessments.

Fig 11-4 An abandoned old house in Saber Al Mawadim, left by its owners due to the impact of war, now stands in disrepair and is unsuitable for living.

Fig 11-5 Inside an abandoned house in Saber Al Mawadim, the remnants of a once lively home reveal the impact of war, with sunlight streaming through openings and vegetation reclaiming the space.

Fig 11-6 Inside another room of the abandoned house in Saber Al Mawadim, sunlight filters through the crumbling roof and a broken window, casting eerie shadows on the walls and revealing the remnants of a once-vibrant space now overtaken by nature.

Fig 11-7 This once-popular public resting and viewing building in Saber Al Mawadim, Taiz, Now lies in ruins, heavily damaged by air strikes during the war, a stark reminder of the conflict's impact on the community.

Fig 11-8 Remnants of an old home in Saber Al Mawadim, with cracked walls and broken windows, stand as a testament to the destruction wrought by war, now overrun by nature and time.

Fig 11-9 NMO engineer conducts a technical assessment of a damaged room in a house in Saber Al Mawadim, Taiz, which has become uninhabitable due to war. While the house owner resides in a safer area of the home, this section is no longer suitable for living.

Fig 11-10 An overview of a deteriorating structure in Saber Al Mawadim, Taiz, where nature is reclaiming the space. The roof has collapsed, and vegetation now flourishes in the once-occupied area, highlighting the impact of abandonment and the effects of war.

Fig 11-11 Cracked and weathered, the facade of an abandoned house in Saber Al Mawadim, Taiz, reflects the toll of conflict. The remnants of its architectural beauty stand in stark contrast to the neglect and devastation surrounding it.

Fig 11-12 Inside a once vibrant room in Saber Al Mawadim, Taiz, the remnants of stained glass windows and cracked walls tell the story of a home damaged by armed clashes during the war. The side wall has collapsed, leaning precariously against the nearby mountain.

Fig 11-13 Remnants of a building in Saber Al Mawadim, Taiz, stand in stark contrast to the encroaching vegetation. The structure, abandoned and damaged by the war, reveals open doorways and collapsed sections, symbolizing the ongoing impact of conflict on the community.

Fig 11-14 During a field visit by technical expert from the shelter cluster in Salah, Taiz. The NMO Engineers evaluates the impact of the war on the local infrastructure, gathering crucial information for rehabilitation efforts.

Fig 11-15 From a damaged building overlooking one of the most impacted main streets in Salah, Taiz, an NMO engineer evaluates the extent of destruction. Both sides of the street bear the scars of war, with buildings visibly damaged and in disrepair, underscoring the urgent need for rehabilitation and support in the community.

Fig 11-16 Inside a damaged room in a building in Salah, Taiz, remnants of wallpaper and broken windows reflect the destruction wrought by war. The debris scattered across the floor and the exposed walls tell a story of neglect and the urgent need for reconstruction.

Fig 11-17 View from a damaged window in a building in Salah, Taiz, overlooking the war-torn landscape. The ruins of nearby structures reflect the impact of conflict on the community, showcasing the need for urgent rehabilitation efforts.

Fig 11-18 Inside another damaged room in Salah, Taiz, the walls bear the scars of conflict with visible cracks and debris scattered across the floor. The light filtering through the broken window highlights the extent of neglect and the urgent need for restoration.

Fig 11-19 During a verification visit by the shelter cluster representative, discussions take place with local residents in Salah, Taiz. The engagement emphasizes the importance of community input in assessing damage and planning for rehabilitation efforts.

Fig 11-20 NMO engineer conducts a thorough assessment in a damaged room in Salah, Taiz. The visible deterioration of the ceiling and walls underscores the severe impact of armed conflict, highlighting the critical need for intervention and support from the shelter cluster.

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