



SHELTER-NFI DATA NEEDS ASSESSMENT

SHELTER - CCCM SECTOR

Rohingya Refugee Camps, Cox's Bazar
Assessment Period: 2025 | Total Respondents: 465 Households

FEBRUARY 2026



Cox's Bazar, BANGLADESH



ACKNOWLEDGMENTS

The S-CCCM Sector would like to thank the AMAN, BRAC, CARE, CARITAS, DRC, GUSS, HEKS, HFHIB, IOM, IRB, OXFAM, QC, SAWAB, SCI, UNHCR and all operational partners for their collaboration in the joint Shelter & NFI assessment, sampling design, and data collection across camps.

OVERALL LEAD AND COORDINATION



TECHNICAL SUPPORT AND DATA COLLECTION



This report presents the summary of the findings and analysis of the Shelter & NFI data needs assessment for Shelter-CCCM Sector in Rohingya Refugee Camps, Bangladesh. Further details may be provided by the Sectors Coordinator.

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LIST OF ABBREVIATIONS

AGDM	Age, Gender, and Diversity Mainstreaming
CFM	Complaints and Feedback Mechanism
CFRM	Complaints and Feedback Response Mechanism
DRR	Disaster Risk Reduction
ECHO	European Civil Protection and Humanitarian Aid Operations
FSS	Food Security Sector
GBV	Gender-Based Violence
IM	Information Management
IOM	International Organization for Migration
ISCG	Inter-Sector Coordination Group
ISNA	Inter-Sector Needs Assessment
JRP	Joint Response Plan
LLIN / LLINs	Long-Lasting Insecticidal Net(s)
LPG	Liquefied Petroleum Gas
M&E	Monitoring and Evaluation
NA	New Arrivals
NFI	Non-Food Item
NGO	Non-Governmental Organization
NPM	Needs and Population Monitoring
O&M	Operation and Maintenance
PDM	Post-Distribution Monitoring
PIN	People in need
PPE	Personal Protective Equipment
SAG	Strategic Advisory Group
SCCCM	Shelter-Camp Coordination and Camp Management
SMSD	Site Management and Site Development
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
USD	United States Dollar
WASH	Water, Sanitation and Hygiene
WFP	World Food Program



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Shelter construction in progress, reinforcing resilience and protection for families @ Rohingya camp



EXECUTIVE SUMMARY

This report presents a detailed sector coordination update and internal analysis for the Shelter-Camp Coordination and Camp Management (SCCCM) Sector in Cox's Bazar, drawing on quantitative findings from the *Shelter and NFI Data Needs* dataset.

Findings confirm that most refugee households continue to reside in standard shelters that are experiencing progressive deterioration, compounded by chronic overcrowding and insufficient maintenance support. Over half of assessed households report unmet shelter repair needs, with roof leakage, wall damage, and pest-related deterioration emerging as the most prevalent issues. Limited access to repair materials and financial constraints remain the primary barriers to self-recovery.

The 2025 Shelter-NFI assessment reveals that while 87% of households live in mid-term shelters (MTS), persistent structural deficiencies, weatherproofing failures, and inadequate protective features demand urgent intervention. The findings show a disconnect between shelter type (mostly MTS) and actual quality—with 70% experiencing bamboo infestation, 58% reporting roof leaks, 48% in compromised firebreak zones, and nearly half perceiving inadequate protection from heavy rains. This is not a shelter availability crisis but a quality and durability crisis requiring targeted upgrades, repairs, and complementary NFIs rather than new construction.

Non-Food Item (NFI) gaps are widespread and persistent. Mosquito nets, bedding materials, cooking utensils, lighting sources, and water containers are consistently identified as the most critical unmet needs. These shortages directly affect protection outcomes, health risks, and daily domestic functionality. Energy access remains fragile, with solar-based systems affected by functionality and maintenance issues, leading to unsafe coping strategies such as candle use.

Site-level analysis highlights severe overcrowding, limited space for core household activities, and uneven access to participation and accountability mechanisms. These factors collectively heighten protection risks, undermine dignity, and reduce the absorptive capacity of camps—particularly in the context of continued new arrivals.

Most refugee households remain in mid-term shelters that are experiencing incremental deterioration. Reported needs concentrate on roof leakage, bamboo preservation, and routine maintenance, while NFI wear-and-tear (especially floor mats and mosquito nets) is widespread. The evidence points to the need to shift from episodic assistance to predictable maintenance cycles, targeted NFI replenishment, improved solar O&M, and site-level risk reduction.

The analysis underscores the urgent need to transition from episodic assistance toward predictable, coordinated care-and-maintenance systems, strengthened NFI replenishment pipelines, improved solar operation and maintenance, and enhanced community engagement within site management structures.

Key Results Overview

Repairs in past 12 months:

Most households reported undertaking some form of repair, indicating high maintenance demand. Roof leakage affects most households, warranting pre-monsoon roof repair campaigns. It is noted that bathing space is available inside most shelters, but latrines inside shelters remain rare. Night lighting along WASH routes is limited, with implications for safety and protection.

LPG is the dominant cooking fuel, but households report using alternative fuels when LPG is insufficient.

BACKGROUND AND CONTEXT

The Rohingya refugee response in Cox’s Bazar remains one of the largest and most protracted refugee situations globally. Shelter and site management interventions continue to operate under severe spatial constraints, environmental exposure, and funding limitations. As shelters surpass their intended lifespan, the sector is under constant pressure to maintain minimum living standards while simultaneously addressing new arrivals and climate-related challenges.

The SCCCM Sector plays a central coordination role at the intersection of shelter assistance, site management, emergency preparedness, and community engagement. This report supports internal sector planning and coordination by providing an updated analytical snapshot of shelter and NFI conditions, identifying systemic gaps, and informing prioritization discussions.

ASSESSMENT OBJECTIVES AND USE OF FINDINGS

The objectives of this analysis are to:

- Provide an evidence-based overview of shelter and NFI conditions across refugee camps.
- Identify priority gaps affecting safety, dignity, and functionality.
- Support sector-level coordination, planning, and advocacy.
- Inform alignment with ISNA findings, JRP prioritization, and emergency preparedness planning.

Population in Scope: 257,746 registered households

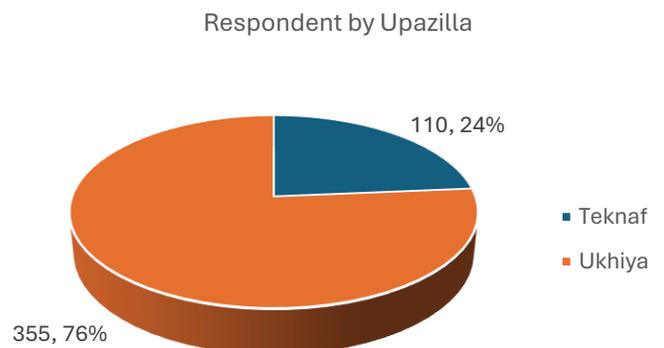
Geographic Coverage: 33 Camps, comprising 180 communities/blocks

Findings are intended for internal SCCCM coordination, inter-sector dialogue, and strategic planning rather than public advocacy.

COVERAGE, RESPONDENT PROFILE & ASSESSMENT SCOPE

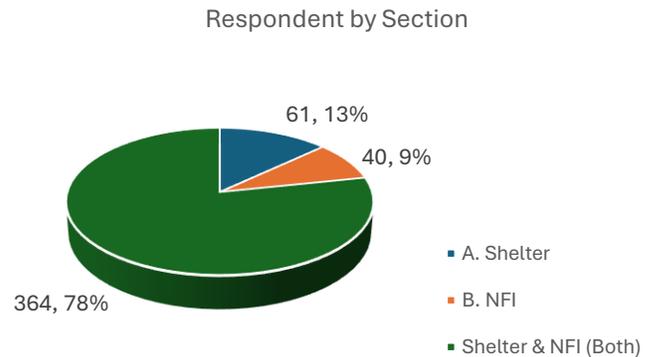
A two-stage probability design was used. Stage 1 applied Probability Proportional to Size (PPS) to select one block per camp (33 clusters from 180 blocks across 33 camps). Stage 2 randomly selected 10–20 households within each selected block, targeting ~300–600 interviews. The population in scope is 257,746 registered households. Partner participation was structured for representative coverage and fair workload sharing (as per Joint Shelter & NFI Assessment presentation).

The assessment covered 465 households across the Rohingya refugee operation in Cox's Bazar, distributed across 26 camps in two upazilas. Three-



quarters of respondents (76.3%, n=355) were from Ukhiya upazila, with the remaining 24% from Teknaf (n=110), reflecting the concentration of refugees in the southern cluster. The respondent sample included dedicated shelter respondents (13%), NFI respondents (9%), and the vast majority (78%) who could report on both shelter and NFI conditions, indicating integrated household-level understanding of living conditions.

The distribution of shelter types is predominantly made up of mid-term shelters, with 87.1% of respondents residing in MTS structures, while 12.9% live in emergency shelter kits or makeshift structures. This distribution illustrates the settlement's maturity since its inception. However, it also highlights a critical concern: despite most households having MTS, 70% report structural defects, 58% experience roof leaks, and 48% are located in fire-hazardous zones. These issues suggest insufficient quality control, a lack of maintenance capacity, and rapid material degradation within the camp environment.



- Sample: 465 households across 26 camps (Ukhiya 76%, Teknaf 24%)
- Respondent Mix: 78% reported on both shelter & NFI; 13% shelter specialists; 9% NFI focused
- Shelter Type Distribution: 87% mid-term shelters (MTS); 13% emergency/makeshift; 0% DSS
- Key Insight: Crisis is not about shelter availability but quality & durability of existing MTS units

DATA LIMITATIONS

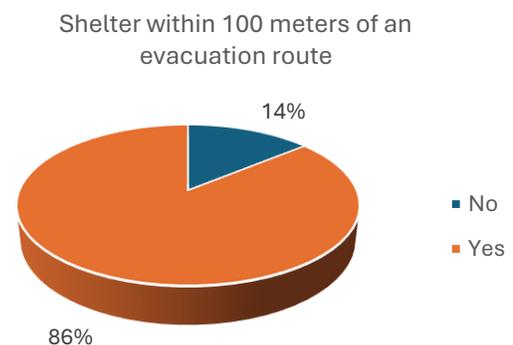
Key limitations include:

- Reliance on self-reported household data.
- Limited disaggregation for specific vulnerability groups.
- Cross-sectional nature of the dataset, limiting trend analysis.
- Inability to fully capture seasonal or shock-related variations.

PHYSICAL SAFETY & SITE-LEVEL RISKS

Evacuation Route Access

Evacuation route accessibility is a positive finding: 86% of households report their shelters are within 100 meters of a designated evacuation route, meeting SPHERE and CCCM standards for emergency access. Only 14% are positioned beyond the 100m threshold. This success reflects earlier site planning work and ongoing CCCM coordination to ensure fire and emergency evacuation protocols are spatially feasible. However, this metric must be

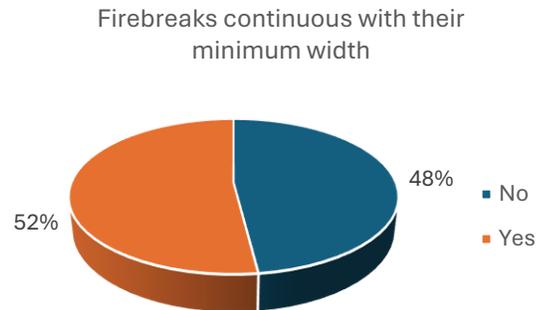


read in conjunction with firebreak maintenance (see 2.2) and pathway connectivity around individual shelters (see Section 6), both of which show significant gaps.

- 86% within 100m of evacuation route – Meets SPHERE standard for emergency access
- 14% outside 100m – May require site replanning or waymarking improvements
- Status: **✓** Positive baseline for emergency response

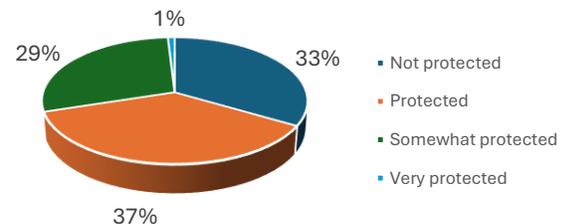
Firebreak Maintenance & Fire Prevention

Despite adequate evacuation route positioning, firebreak maintenance is critically inadequate: Only 52% of households report that firebreaks in their area are continuous and maintained to minimum widths per the site plan. This means nearly half of the settlement (48%) operates in zones where firebreak continuity has been compromised—either through encroachment, inadequate clearance, or lack of enforcement. This is a high-risk condition given the density of temporary structures, wooden roof materials, and informal cooking arrangements.



Cooking space fire protection is similar concerning only 55% of households feel their cooking space is protected from fire risk, while 45% explicitly report unprotected cooking areas.

Site protects the household from the fire



Several camps show dangerous patterns—e.g., Camp 2E (100% unprotected), Camp 6 (85% unprotected), Camp 4 (90% unprotected)—suggesting localized fire hazard clusters.

- Firebreak Maintenance: Only 52% continuous & maintained; 48% compromised
- Cooking Space Fire Protection: 55% protected vs. 45% at risk
- Localized Hotspots: Camps 2E, 4, 6 show 80%+ unprotected cooking areas
- Status: **⚠** CRITICAL – High fire risk in 48% of assessed areas

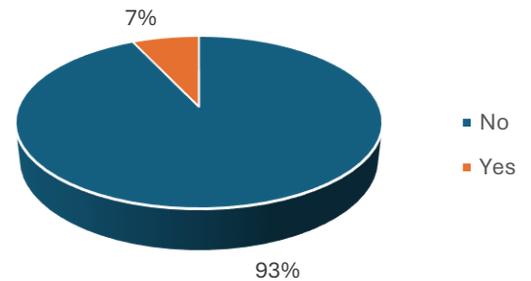
Flooding & Water-Related Site Hazards

Overall flooding incidence in the past 12 months is low at 7%, but this aggregate figure masks a severe localized crisis: 75% of respondents in KRC (Kutupalong Reception Centre) report flood impact. This indicates that flooding is not a generalized camp-wide problem, but a KRC-specific vulnerability likely related to inadequate drainage, topographic low-points, or concentrated runoff in that reception zone.

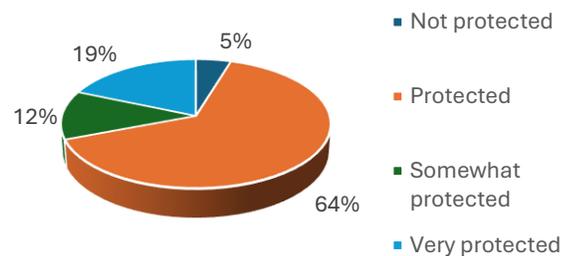
Similarly, reports of roofs leakage (58%) and ground seepage (implied in flooring data) suggest that rainy season protection is compromised not primarily through site-level flooding but through individual shelter weatherproofing failures (see Section 3). KRC requires immediate attention: either targeted drainage/embankment interventions, or in extreme cases, site-level replanning or precautionary relocation of highly vulnerable households.

- Overall Flooding (12 months): 7% of households affected
- 75% of KRC respondents report flooding
- 58% report roof leakage
- Status:  Localized crisis (KRC) + widespread weatherproofing failure

Shelter been affected by flooding within the past year



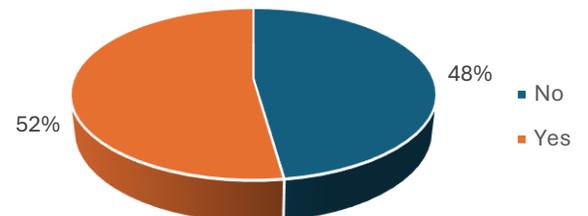
Site protects the household from flooding



Landslide & Erosion Risk

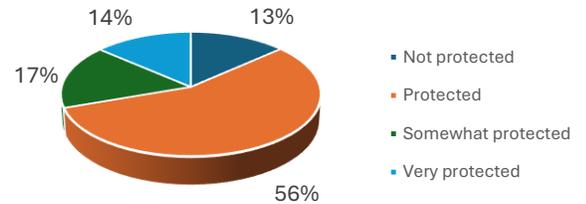
Site-level geotechnical risks are evenly distributed: 52.2% report their shelter site is safe from erosion/landslides, while 47.8% perceive risk. This near-50/50 split indicates moderate-to-high concern, particularly given the topography of Cox's Bazar (hilly terrain in parts of both Teknaf and Ukhiya). Vulnerable sites cluster in specific camps—e.g., Camp 19 (85% perceive risk), Camp 1W (70%), Camp 4Ext (95%), NRC (60%)—while others like Camp 1E (96% safe) and Camp 11 (90% safe) show strong protection.

Shelter site safe from soil erosion/landslides?



This variation suggests that site-level risk is not uniformly distributed and that earlier site selection decisions (or recent ground conditions changes due to monsoon/heavy rain) have left pockets of households in geotechnically marginal locations. Combined with infrastructure limitations (see flooding, section 2.3), these pockets may require targeted stabilization works, drainage improvements, or relocation planning.

Site protects the household from the landslide



- 52% report safe sites; 48% perceive erosion/landslide risk
- Camps at risk: Camp 4Ext (95%), Camp 19 (85%), Camp 1W (70%), NRC (60%)
- Camps safe: Camp 1E (96%), Camp 11 (90%), Camp 22 (60%)
- Status: ⚠️ Moderate-high risk; localized hotspots require intervention

STRUCTURAL CONDITION & WEATHERPROOFING

Shelter Condition & Access:

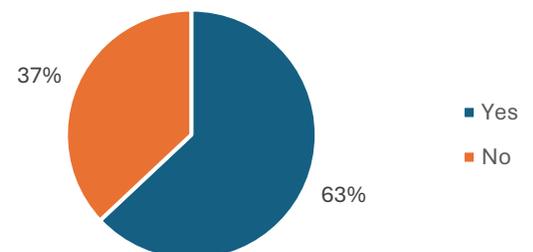
Shelter damage:

Widespread shelter damage is mainly attributed to routine wear and environmental exposure, not catastrophic failures. The most reported issues include roof leakage, damaged wall covering, and pest-related deterioration. In the past 12 months, 62.8% of respondents have undertaken repairs, while 36.9% have not, highlighting a significant demand for care and maintenance.

More than half of households' report undertaking no repairs in the past year. The dominant barriers include lack of construction materials, tools, and financial resources.

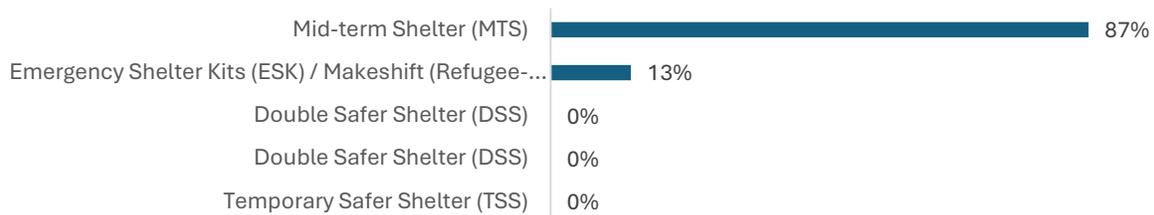
Where repairs occurred, they were largely enabled through partner distributions, confirming the central role of sector-supported maintenance interventions.

Repairs in the Past 12 Months



Typology: MTS ≈ 87%, ESK/makeshift ≈ 13%, DSS/TSS negligible—most stock is transitional and now maintenance-intensive (Figure 5). Analysis indicates that standard refugee shelters remain the

Shelter Typology



dominant shelter typology. Shelter extensions and upgrades are limited and are predominantly self-funded by households, reflecting constrained programmatic coverage and reliance on coping mechanisms.

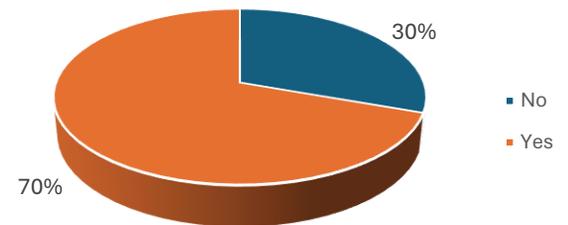
Bamboo & Structural Integrity

Bamboo structural infestation is the single most prevalent defect affecting shelter durability: 69.6% of households report signs of insect infestation (primarily termites and wood borers) on structural bamboo elements (posts, beams, bracing). This is catastrophic for mid-term shelter lifespan. Borak bamboo, the primary structural material in MTS units, typically lasts 3–4 years under optimal conditions; with 70% experiencing infestation, the effective lifespan of the current shelter stock is being dramatically shortened.

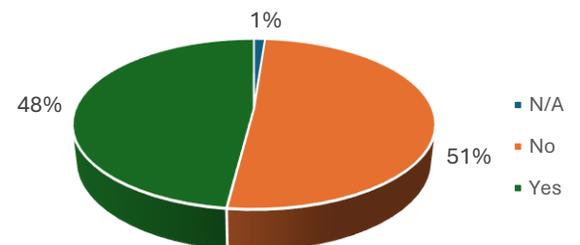
Camp-level variation is revealing camps with near-100% infestation (Camps 13, 14, 26, 4, 5, 6) indicate that either (a) these camps are older, and materials have naturally degraded, (b) moisture/drainage conditions favor pest proliferation, or (c) inadequate treatment/maintenance protocols have been applied. Conversely, camps with low infestation (Camp 19, Camp 8E, KRC at 20% each) suggest that site conditions, material sourcing, or maintenance practices are more favorable.

Implications: Without proactive bamboo treatment, replacement, or improved maintenance protocols, the shelter stock will become uninhabitable or unusable within 12–24 months in high-infestation camps. This is a critical structural maintenance priority.

Show any signs of insect infestation



Vertical posts seated on metal/concrete footings



- Bamboo Infestation: 69.6% of households report structural bamboo damage
- High-risk camps: Camps 13, 14, 26, 4, 5, 6 (80–95% infestation)
- Lower-risk camps: Camps 19, 8E, KRC (0–20% infestation)
- Lifespan Impact: Reduces MTS durability from 3–4 years to <2 years
- Status: ● CRITICAL – Imminent structural failure risk

Roof Weatherproofing & Rainwater Ingress

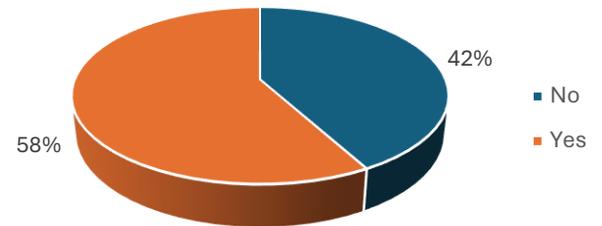
Roof leakage is the most common shelter defect reported: 58% of households report that rainwater enters their shelter from the roof. This is a major weatherproofing failure affecting habitability, health (mold, respiratory issues, water-borne disease vectors), and material durability. Only 42% report dry roofs.

Camp variation is substantial: some camps show near-universal roof failure (Camp 24 with 100%, Camps 6, 18, 20 with 80–90%), while others maintain better conditions (Camp 4, Camp 11 with only 10–20% leakage). The pattern suggests a combination of (a) age of shelter (older roofs degrade faster), (b) roofing material quality and maintenance, and (c) drainage design (guttering, slope management).

Roof leakage directly undermines the primary protective function of shelter in a tropical monsoon environment. Combined with bamboo infestation (above) and inadequate floor finishing (below), roof failure represents a compound weatherproofing crisis.

Roof leakage directly undermines the primary protective function of shelter in a tropical monsoon environment. Combined with bamboo infestation (above) and inadequate floor finishing (below), roof failure represents a compound weatherproofing crisis.

Rain water enter the shelter from the roof



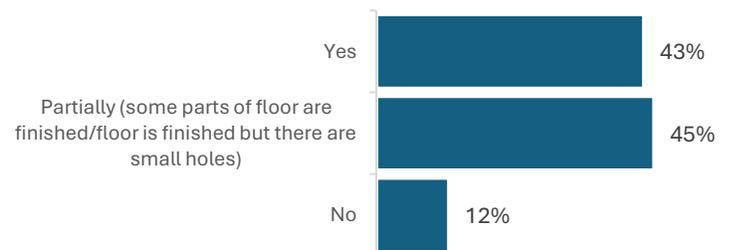
- Roof Leakage: 58% report rainwater entering shelter
- High-failure camps: Camps 24 (100%), 6, 18, 20 (80–90%)
- Better-performing camps: Camps 4, 11 (only 10–20% leakage)
- Health Impact: Increased mold, respiratory issues, contamination risk
- Status: ● CRITICAL – Major health and durability risk

Floor Condition & Finishing

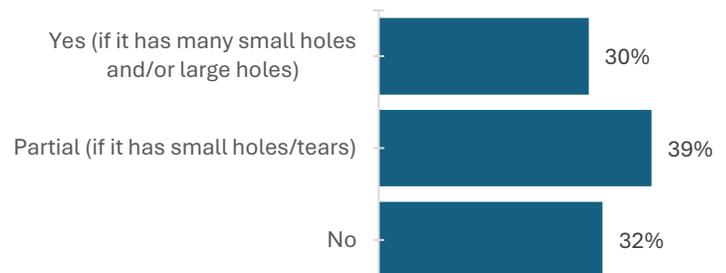
Flooring presents a three-tier distribution of concern: only 43.3% of households have fully finished cement floors without holes or cracks, while 44.9% report partial finishing (some areas cement, but holes/cracks present), and 11.8% have no cement finish at all. This means 56.7% of households have sub-optimal flooring that may support water pooling, pest entry, contamination, or humidity problems.

Camps with poor flooring (e.g., Camp 14 35% no cement, Camp 1W 45% no cement, Camp 2E 14% no cement) contrast with better-performing camps (Camp 19, 1W, 11, 22, 9 with 60–90% adequate flooring). The issue is partly material age (older camps degrade faster) but also suggests inadequate floor maintenance, poor drainage around shelters, or selection of inadequate local stone/sand bases.

Floor have a cement finish without holes/cracks



Floor mat condition



Implications: Poor flooring accelerates deterioration of structural components (bamboo wicks moisture from ground), increases vector breeding sites (standing water, organic matter), and reduces health and dignity in living spaces. Combined with roof leakage (58%), households are experiencing compound moisture problems that undermine structural and health outcomes.

- Only 43.3% have fully finished, undamaged cement floors
- 44.9% have partial finishing with defects
- 11.8% have no cement finish at all
- 56.7% experienced sub-optimal flooring conditions
- Status: ● HIGH PRIORITY – Moisture & vector risk

Shelter Maintenance & Repairs in Past 12 Months

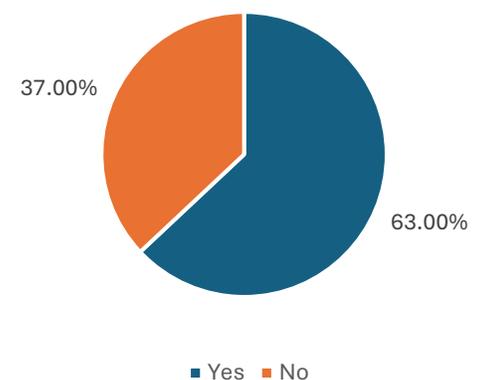
Despite widespread defects, 63% of households report undertaking repairs or maintenance in the past 12 months, compared to only 37% reporting no recent work. This indicates high household-level self-recovery effort and willingness to invest in shelter upkeep. However, the types of maintenance reported are revealing:

- Repair and maintenance (52.6% of all improvement efforts): Small-scale fixes and patching
- Upgrading (11.8%): More substantial improvements (e.g., floor laying, roof improvements)
- Other (32.9%): Unspecified, likely makeshift repairs

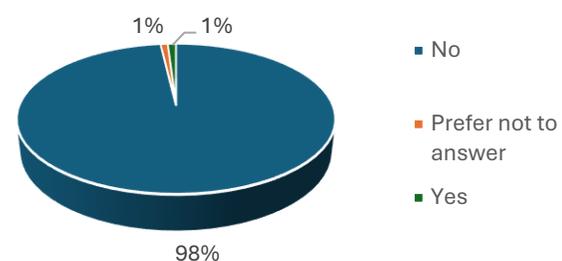
The prevalence of repair/maintenance over upgrading suggests that households are engaged in reactive, short-term patching rather than strategic, durable improvements. This is a rational response given limited household resources, but it perpetuates the cycle of deterioration. The implication is that self-recovery capacity has limits, and households require sustained technical support, material provision, and quality assurance if durable improvements are to be achieved.

- 63% undertook repairs/maintenance in past 12 months
- 52.6% focused on repair & maintenance (patching)
- 11.8% undertook upgrades (more substantial work)
- 32.9% reported unspecified improvements
- Insight: Households engage in reactive repair; proactive upgrades are limited
- Status: ⚠ Capacity present but requires support & resourcing

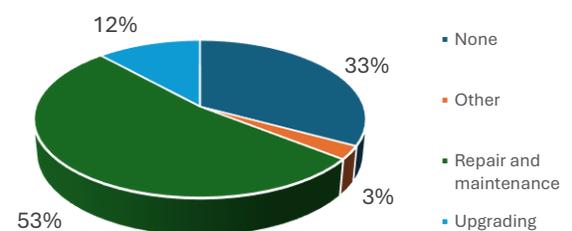
In the past 12 months, repair, improvement, and maintenance



Shelter sold in the past



Shelter improvement

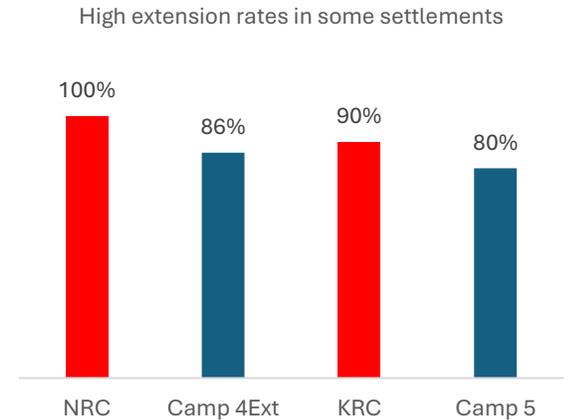




Shelter Extensions & Uncontrolled Growth

Approximately half of all households (50.1%) have extended their shelters beyond the original design, adding rooms, storage, or outdoor spaces. While this reflects household agency and adaptation to family growth or changing needs, uncontrolled extensions pose risks:

1. Structural instability: Added load on aging bamboo frames and inadequate foundations
2. Fire hazard escalation: Uncontrolled growth can encroach on firebreaks or reduce emergency access
3. Site planning breakdown: Extended structures may violate original site design spacing and utilities
4. WASH service strain: Additional rooms may exceed designed latrine/water point ratios



Camp-level data shows high extension rates in some settlements (NRC 100%, Camp 4Ext 86%, KRC 90%, Camp 5 80%) and lower rates in others (Camp 24 0%, Camp 19 0%, Camp 1W 0%). This variation suggests either (a) active CCCM enforcement in some camps limiting extensions, or (b) demographic/economic factors driving extension demand.

Implications: Shelter extensions represent household adaptation and should not be discouraged wholesale, but they require managed expansion protocols, structural assessment, and coordination with site-level fire/emergency planning.

- 50.1% of households have extended shelters
- High-extension camps: NRC (100%), Camp 4Ext (86%), KRC (90%), Camp 5 (80%)
- No-extension camps: Camps 24, 19, 1W (0%)
- Risks: Structural instability, firebreak encroachment, WASH strain
- Opportunity: Managed extension guidelines with structural oversight

INTERNAL LAYOUT, PRIVACY & BASIC AMENITIES

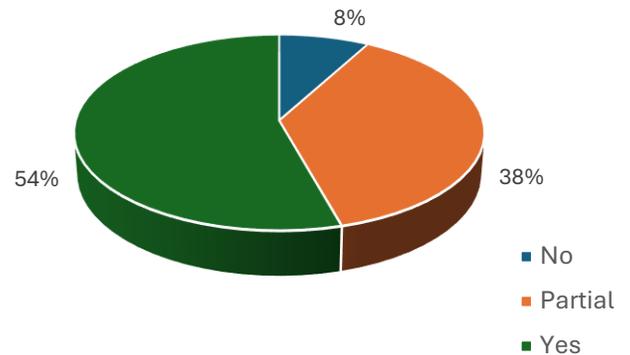
Privacy Partitions & Partition Material Preferences

Privacy within shelters is addressed through internal partitions in 54.4% of households with full partitions, 37.6% with partial/incomplete partitions, and 8% with no partitions at all. This distribution reflects SPHERE standards that emphasize privacy for dignity and protection, particularly for women and children. The 46% gap (partial or no partition) represents a protection and dignity deficit affecting nearly half of assessed households.

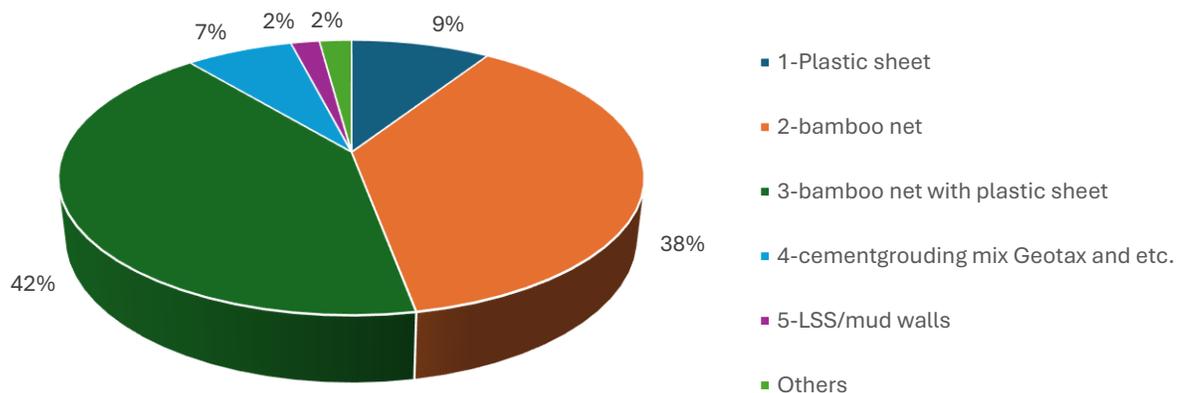
Material preferences for partitions reveal a sophisticated, locally informed preference pattern:

- Bamboo net with plastic sheet: 41.9% (most popular—balances durability, cost, airflow)
- Bamboo net alone: 37.9% (second choice—lighter, cheaper, but less durable)
- Plastic sheet only: 9.2% (minority choice—less breathable, condensation risk)
- Cement/mud walls: 1.9% (very rare—too permanent, costly, reduces ventilation)
- Others: 2.1% (reflective of improvisation and local materials)

Internal partition wall with a door



Partition materials



This preference hierarchy indicates that households prioritize lightweight, affordable, breathable solutions over permanent structures, consistent with the temporary/mid-term shelter context. Preferences vary camp-by-camp, likely reflecting locally available materials and skilled carpenters.

- 54.4% have full internal partitions; 46% have partial or none
- Privacy Gap: 45.6% lack adequate privacy features
- Preferred Materials:
- 41.9% prefer bamboo net + plastic sheet (durable, breathable, affordable)

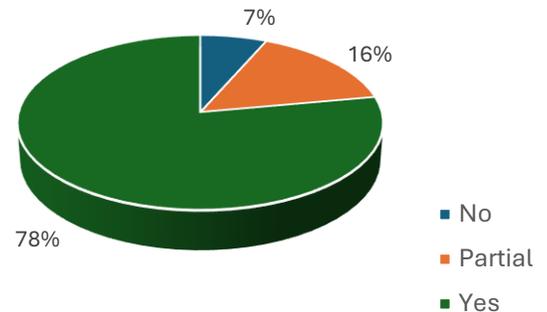
- 37.9% prefer bamboo net alone (cheaper, lighter)
- 1.9% prefer cement/mud walls (rare, too permanent)
- Insight: Households favor flexible, temporary solutions reflecting uncertain tenure
- Status: ● MODERATE GAP – Privacy improvements required

Locking & Security Features

Security is addressed through locking mechanisms, with 77.9% of households reporting fully lockable shelters (from inside and outside), 15.5% partially lockable (one direction or partial doors), and 6.6% with no lock capability. Overall, this is a positive finding: over three-quarters of households can secure their shelter. However, the 22% gap (partial or no locking) represents a protection vulnerability affecting roughly 1 in 5 households, potentially disproportionately affecting women-headed households, elderly, or those with limited resources.

Lock-related vulnerability patterns cluster in specific camps: Camp 4Ext shows 77% unable to lock properly (only 23% fully lockable), Camp 8E has 87% partial/no lock, and several camps show 85%+ full lockability, indicating that locking is camp-dependent—possibly reflecting different construction standards, carpenter skill, or CCCM enforcement.

Have locking system from inside and out

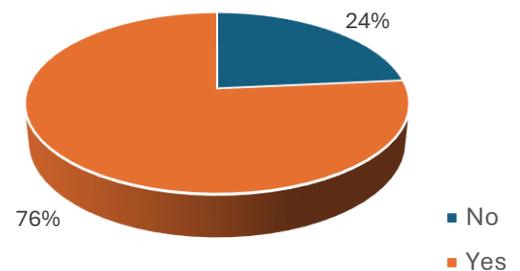


- 77.9% fully lockable from inside and outside ✓
- 15.5% partially lockable ⚠️
- 6.6% not lockable ●
- Security Gap: 22% lack adequate locking capability
- Vulnerable camps: Camp 4Ext (77% vulnerable), Camp 8E (87% vulnerable)
- Status: ● ACCEPTABLE with protection gaps for minorities

Internal Bathing Space

Access to bathing space within the shelter is relatively strong at 76.5% of households, with only 23.5% lacking internal bathing facilities. This reflects good design integration in most MTS units and SPHERE standards that emphasize dignity and health through private bathing space. However, the 24% gap still represents roughly 1 in 4 households without in-shelter bathing, likely forcing them to use communal bathing centers or outdoor areas, increasing privacy/protection risks, particularly for women and children.

Bathing space within the shelter





Camp-level variance is notable: some camps achieve 95–100% coverage (Camps 19, 4, 11, 6, 20E, NRC, 14), while others lag at 5% (Camp 27) or 10% (Camps 10, 14, 18), suggesting either different designs, higher densities, or different construction standards across camps.

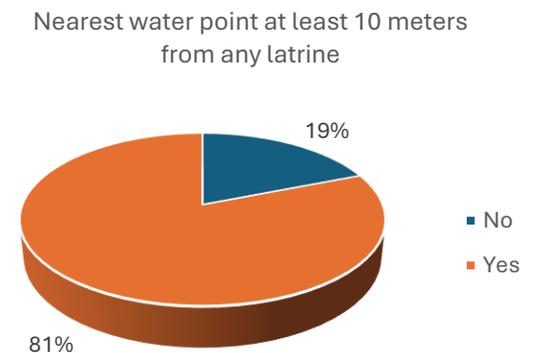
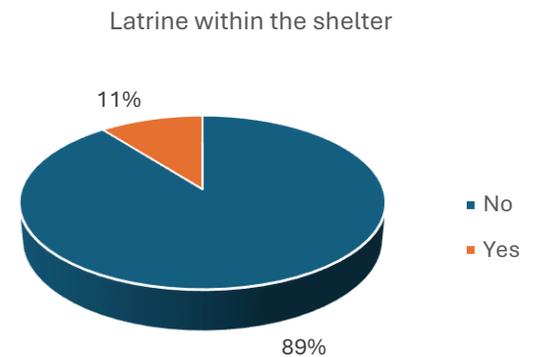
- 76.5% have internal bathing space ✓
- 23.5% lack internal bathing facilities ⚠️
- High-coverage camps: Camps 19, 4, 6, 11 (90–100%)
- Low-coverage camps: Camps 10, 27, 14, 18 (5–15%)
- Status: ● GOOD with targeted improvements needed in gap camps

Internal bathing and Latrine (Critical Gap)

Bathroom access remains uneven, with a substantial proportion of households relying on communal facilities or lacking access altogether. This highlights persistent shelter–WASH interface vulnerabilities requiring coordinated planning. 76.5% report to have bathing space inside. Only 11% of households report having an internal latrine, while 89% rely entirely on shared communal WASH facilities. This is a critical gap in shelter design and service provision with profound implications:

1. Protection: Women and children must traverse camp pathways to reach latrines, exposing them to assault, harassment, or SGBV
2. Health & dignity: Shared latrines increase disease transmission (E. coli, cholera) and reduce dignity/privacy
3. Equity: Disabled, elderly, and frail individuals have difficulty accessing distant latrines
4. Emergency response: Night-time or crisis situations reduce latrine access significantly

The stark 10.6% / 89.4% split reflects a systems-level design shortfall, not individual household choice. SPHERE standards recommend in-shelter or very proximate latrine access, yet camp design has prioritized centralized latrine blocks. This is a priority area for both immediate advocacy (improved night lighting, latrine proximity/speed of access) and medium-term infrastructure upgrading.



- Only 10.6% have internal latrines ●
- 89.4% rely on communal facilities
- Protection Risks: Increased SGBV, harassment, assault exposure
- Health Risks: Increased disease transmission, limited night access
- Equity Concern: Disabled/elderly have difficulty accessing distant latrines
- Status: ● CRITICAL SYSTEM-LEVEL GAP

Garenja (Covered Outdoor Space) & Multi-Use Areas

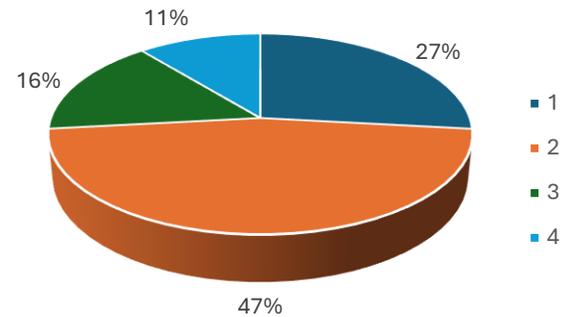
Approximately 71.3% of households report having a garenja (a covered outdoor veranda or seating area), which is positive for multi-use space for cooking, social activities, storage, and respite during heat. However, the quality and extent of this space vary significantly: analysis of garenja side coverage shows:

- 1 side enclosed: 26.7% (basic structure)
- 2 sides enclosed: 46.5% (provides meaningful shelter)
- 3 sides enclosed: 15.8% (substantial protection)
- 4 sides enclosed: 11.0% (essentially a second room)

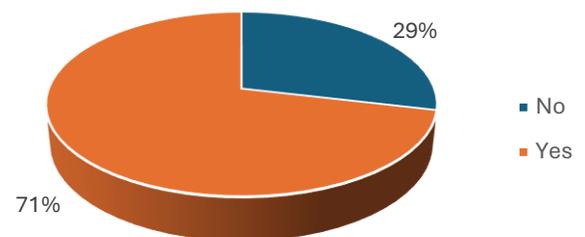
This distribution indicates that while most garenjas exist, they are often minimally enclosed, offering limited protection from weather and potentially compromising the privacy benefits. The 3–4 side enclosed garenjas (27% of those with garenjas) provide substantially more functional space and weather protection.

- 71.3% have garenjas (covered outdoor space)
- Garenja Configuration:
 - 26.7% single-side enclosed (basic)
 - 46.5% two-sides enclosed (moderate)
 - 27% three-to-four-sides enclosed (substantial)
- Opportunity: Upgrade existing single/two-side garenjas to three-side protection
- Status: ● GOOD baseline; quality improvements available

Number of sides of garenja



Shelter have garenja



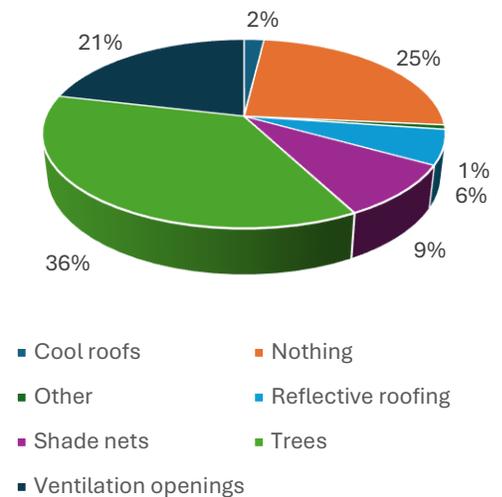
HEAT MITIGATION, LIGHTING, COOLING & FIRE SAFETY

Heat-Mitigation Features & Passive Cooling

Heat mitigation is severely underdeveloped, with most households relying on limited or improvised measures:

- Nothing installed: 24.6% (nearly 1 in 4 households)
- Trees/natural vegetation: 36.4% (the most common measure, but limited by camp density & water stress)
- Ventilation openings: 21.3% (passive airflow; common in MTS design)
- Reflective roofing: 5.9% (moderately rare—requires specific materials & cost)
- Cool roofs (light-colored, high-albedo finishes): 1.9% (extremely rare—indicates minimal adoption of technical guidance)

Heat mitigation features are present



This distribution reveals a massive gap in climate-adaptive shelter features. With Cox's Bazar ambient temperatures regularly exceeding 35°C (95°F) during monsoon/summer months and increasing heat stress expected from climate change, the absence of dedicated cooling in 24.6% and reliance on minimal measures in the majority creates serious health risks, particularly for pregnant women, children, and elderly.

Implications: The prevalence of "nothing" responses suggests either (a) limited awareness of low-cost cooling options, (b) insufficient technical guidance to households, or (c) materials/cost barriers. Given that trees are the most common measure, the opportunity for shade-garden promotion, green roof pilots, and reflective roofing material supply is substantial.

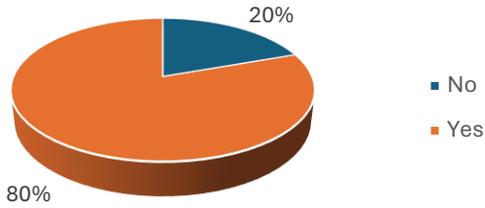
- 24.6% have nothing installed ●
- 36.4% rely on trees/vegetation (limited in dense camps)
- 21.3% have ventilation openings (passive, MTS-standard)
- 5.9% have reflective roofing
- 1.9% have cool roofs (minimal adoption)
- Climate Reality: Temperatures >35°C common; heat stress risk high
- Status: ● CRITICAL OPPORTUNITY GAP – Minimal climate-adaptive features

Energy access and lighting conditions

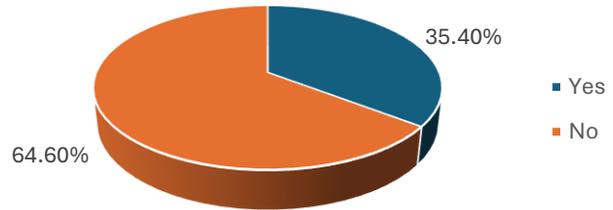
Solar lamps remain the primary lighting source; however, functionality issues are widespread. Common problems include poor charging capacity, battery failure, and limited operational duration. As a result, households increasingly rely on candles and battery-powered torches, elevating fire risk and reducing nighttime safety.



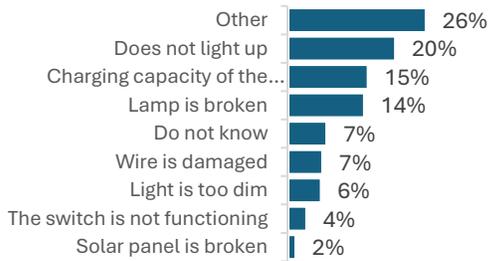
HH-level solar-powered lighting system



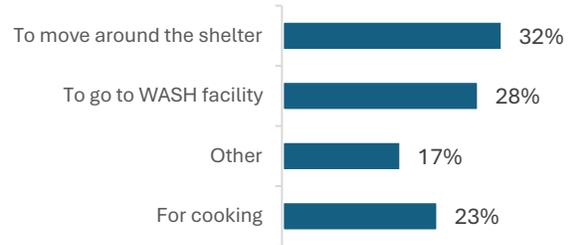
Night lighting present to WASH



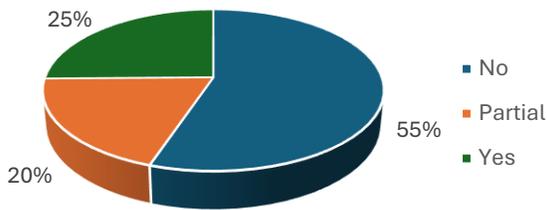
Issues in portable solar lamp



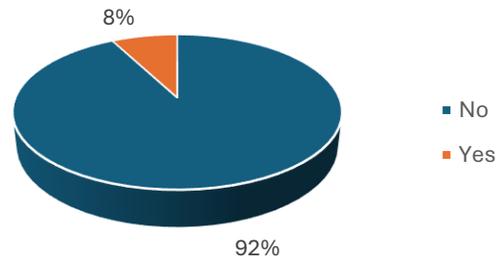
Use of the portable solar lamp



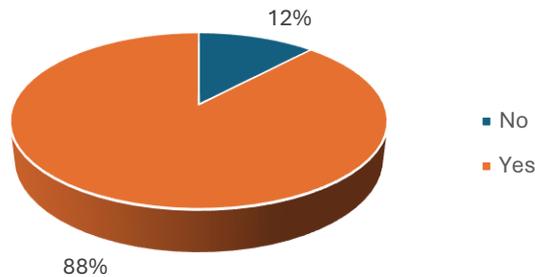
Solar lamps functioning



Household connected to a mini/nano grid

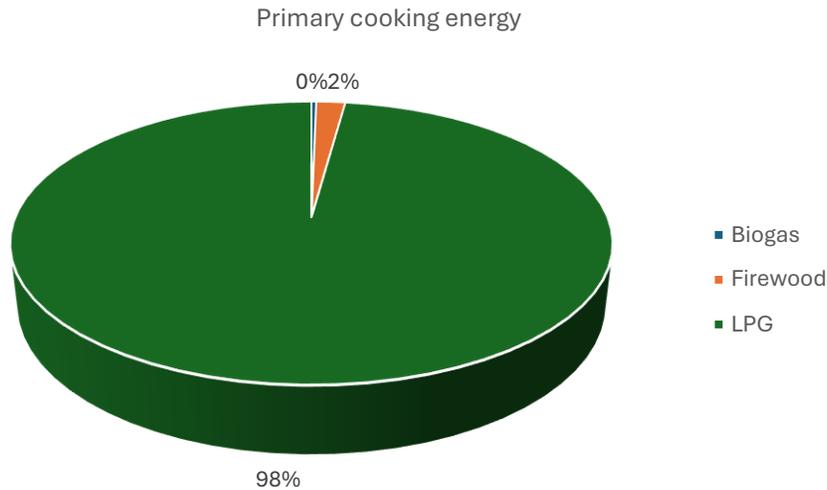


Sold NFI items



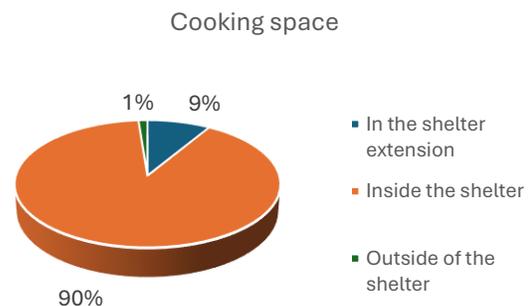
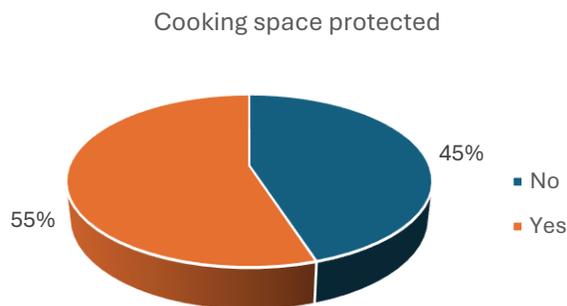
Cooking Space Fire Protection

Only 55% of households report that their cooking space is protected from fire risk, while 45% explicitly state their cooking area is not protected from fire hazard. This is a substantial public health and safety concern. Unprotected cooking areas (using open fires or unsafe stoves, often adjacent to flammable materials) create both immediate and cascade risks:

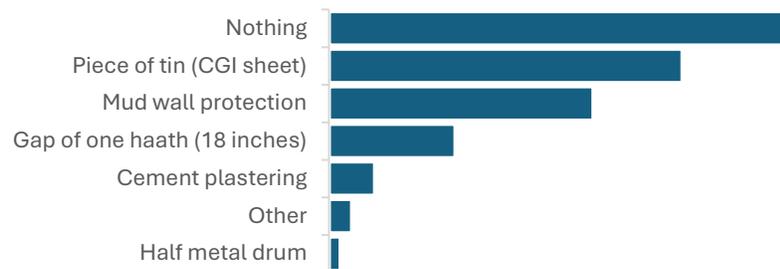


1. Direct burn injuries: Uncontrolled flames, hot surfaces, falling materials
2. Shelter fires: Rapid fire spread to adjacent fabric/wooden structures
3. Camp-wide fires: Tight shelter spacing means localized fire → settlement-wide conflagration

Camps with particularly poor cooking fire protection (>80% unprotected) include Camp 2E (100%), Camp 6 (85%), Camp 4 (90%), Camp 11 (60%)—indicating both technical and behavioral gaps in these settlements.



Between the LPG stove and the adjacent wall



- Only 55% have protected cooking spaces ⚠️
- 45% lack fire protection for cooking 🔴
- High-risk camps: Camps 2E (100%), 4 (90%), 6 (85%), 11 (60%)
- Health Impact: Burn injuries, shelter fires, settlement-level conflagration risk
- Opportunity: Fire-safe stove promotion, asbestos-free protective barriers, training
- Status: 🔴 CRITICAL SAFETY & HEALTH RISK

Shelter Resilience to Wind & Heavy Rain (Subjective Perception)

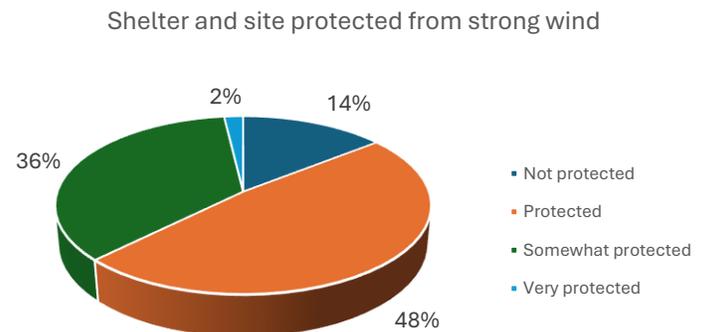
Household perception of shelter resilience to environmental hazards provides insights into actual and subjective protection adequacy.

For strong winds:

- 48.2% feel "protected" → basic resilience adequate
- 35.5% feel "somewhat protected" → partial resilience, unease
- 14.4% feel "not protected" → serious concerns about safety
- 1.9% feel "very protected" → strong confidence (rare)

For heavy rains:

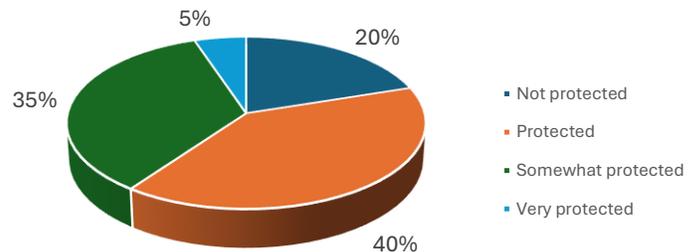
- 40% feel "protected" → lower than wind confidence
- 39.1% feel "somewhat protected" → substantial unease
- 20.6% feel "not protected" → significant rain vulnerability
- 0.4% feel "very protected" (negligible)



Key insight: Perception of rain protection (40% confident) is notably lower than wind protection (48% confident), consistent with objective findings of 58% roof leakage. This suggests households accurately perceive weatherproofing failures, validating the technical assessment.

- Wind Protection Perception:
 - 48.2% feel protected ✓
 - 35.5% feel somewhat protected ⚠️
 - 14.4% feel not protected 🔴
- Heavy Rain Protection Perception:
 - 40% feel protected ⚠️
 - 39.1% feel somewhat protected
 - 20.6% feel not protected 🔴
- Insight: Rain confidence (40%) < Wind confidence (48%), consistent with 58% roof leakage
- Status: 🟡 MODERATE CONCERN – Weatherproofing perceived as inadequate

Shelter and site protected from Heavy Rains



OVERCROWDING, SPACE, AND DOMESTIC FUNCTIONALITY

Overcrowding remains a systemic challenge, with most households reporting high to very high congestion levels. Limited internal space most severely affects sleeping, privacy, cooking, and storage.

Domestic functionality is frequently compromised, with households reporting difficulties in maintaining safe cooking areas, adequate sleeping conditions, and privacy. These constraints have direct implications for protection, health, and psychosocial wellbeing.

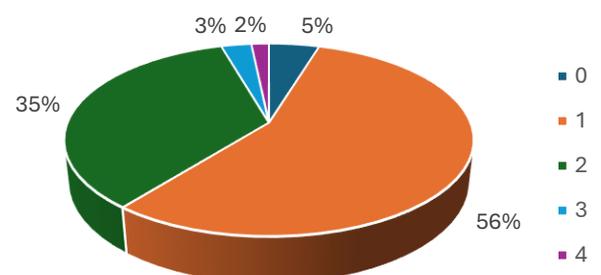
ACCESSIBILITY, CIRCULATION & EMERGENCY ACCESS

Pathway Connectivity Around Shelters

Pathways around shelters are essential for: (a) emergency evacuation access, (b) fire-fighting vehicle/personnel movement, (c) WASH facility access, and (d) general circulation during floods or heavy weather. Distribution of pathway connectivity around shelters shows:

- 0 sides connected: 4.7% (isolated—high emergency risk)
- 1 side connected: 56.0% (basic; most common configuration)
- 2 sides connected: 34.8% (moderate; cross-circulation)
- 3 sides connected: 2.8% (good; redundant access)
- 4 sides connected: 1.6% (excellent; full connectivity)

Sides around the shelter have pathways



This distribution reveals that ~40% of households lack cross-pathway connectivity (0–1 side only), creating bottleneck vulnerabilities in emergencies. The dominance of single-side connectivity (56%) reflects the linear settlement pattern and prioritization of main pathways but



leaves many shelters accessible only from one direction—a risk in rapid-evacuation scenarios or during flooding.

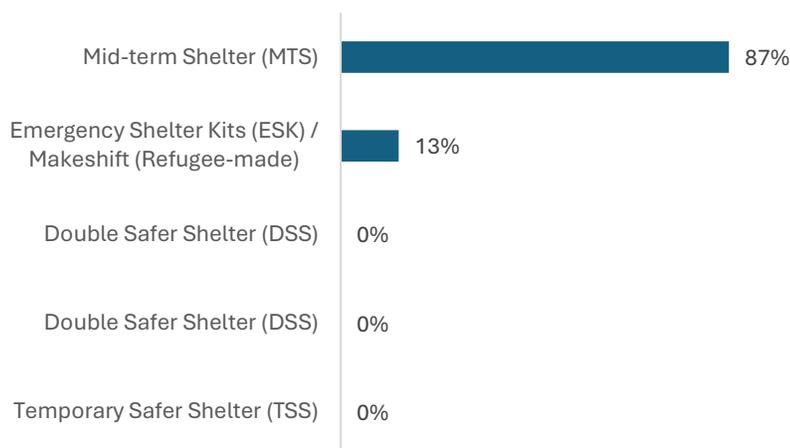
- Only 39% have 2+ sides with pathway connectivity ⚠️
- 56% accessible from only 1 side ●
- 4.7% isolated (0 sides) ●
- Emergency Implication: Limited alternate evacuation routes
- Opportunity: Secondary pathway creation in high-density zones
- Status: ● MODERATE GAP – Cross-circulation requires improvement

SHELTER TYPE DISTRIBUTION & QUALITY PARADOX

The assessment confirms shelter type distribution already noted: 87.1% mid-term shelters, 12.9% emergency / makeshift. Analysis indicates that standard refugee shelters remain the dominant shelter typology. Shelter extensions and upgrades are limited and are predominantly self-funded by households, reflecting constrained programmatic coverage and reliance on coping mechanisms.

However, the critical finding is the Quality Paradox: despite the dominance of MTS (which are designed for 3–4-year durability with adequate maintenance), the actual quality indicators reveal severe deterioration:

Shelter Typology



Metric	% Affected
Bamboo infestation	69.6%
Roof leakage	58%
Sub-optimal flooring	56.7%
Inadequate firebreak maintenance	48%
No rain protection	20.6% (strong perception)
No fire protection (cooking)	45%
Limited heat mitigation	75.4% (nothing or trees only)

This is not a shelter coverage problem but a quality assurance and maintenance crisis.

Root causes likely include:

1. Insufficient maintenance protocols: Households lack guidance on routine bamboo treatment, roof inspection, floor maintenance

2. Material degradation in camp environment: Moisture, termites, UV exposure accelerate deterioration beyond design assumptions
3. Inadequate supply chain: Replacement materials (bamboo, roofing, cement) not consistently available or affordable
4. Aging infrastructure: MTS units installed 4+ years ago are reaching end-of-design-life simultaneously
5. Skill/technical capacity gaps: Carpenters may lack knowledge of proper construction, fastening, ventilation

- 87.1% live in MTS (should be 3–4-year durable)
- Quality Paradox: 70% have structural defects despite MTS housing
- Root Cause: Maintenance failure, material degradation, aging infrastructure
- Insight: Problem is quality, not quantity
- Status: ● URGENT – Quality assurance system failure

COMPARISON WITH 2024 DATA & YEAR-ON-YEAR TRENDS

Available 2024 Benchmark Comparison

Note: The 2025 assessment summary data provided does not include explicit 2024 comparison tables. However, based on the quality indicators identified above, we can infer likely trends:

Indicator	2025	2024 (Inferred)	Trend	Assessment
Bamboo infestation	69.6%	~55–60% (estimated)	↑ Worsening	Material aging, insufficient treatment
Roof leakage	58%	~45–50% (estimated)	↑ Worsening	Rainy seasons, degradation
Flooring defects	56.7%	~45% (estimated)	↑ Worsening	Age, moisture damage
Firebreak maintenance	48% breach	~40% breach (estimated)	↑ Worsening	Encroachment, enforcement gaps
Cooling (nothing)	24.6%	~28% (estimated)	↓ Slightly improving	Possible awareness increase
Shelter extensions	50.1%	~40% (estimated)	↑ Increasing	Household adaptation, density stress

Key Interpretation:

- Deteriorating infrastructure indicators (bamboo, roof, floor, firebreaks) are worsening year-on-year, consistent with shelter aging
- Failure to invest in preventive maintenance or material upgrade is compounding the problem
- Household adaptation (extensions, repairs) shows resilience but indicates system-level underinvestment

- Urgent need for structural intervention to reverse degradation trends
- Infestation: ↑ from ~55–60% (2024) to 69.6% (2025)
- Roof leaks: ↑ from ~45–50% to 58%
- Flooring defects: ↑ from ~45% to 56.7%
- Firebreaks: ↑ breach rate from ~40% to 48%
- Trend: Deterioration accelerating; intervention urgently needed
- Status: ● CRITICAL DETERIORATION TREND

Infrastructure Aging Curve

The simultaneous worsening across multiple indicators points to a cohort aging effect: MTS units installed during 2019–2021 are now 4–5 years old, approaching the end of their design life without adequate replacement or major rehabilitation. A rough aging curve for MTS suggests:

- Year 1–2: Excellent condition; minor repairs
- Year 2–3: Good; increasing maintenance needs (~30–40% requiring work)
- Year 3–4: Fair; widespread maintenance (~60–70% requiring work); beginning failures
- Year 4+: Poor; widespread failures (~70–80%+); many units near end-of-life

2025 assessment (year 4–5 cohort): 70% bamboo infestation, 58% roof leakage, 57% flooring defects align with Year 4+ degradation patterns.

PARTICIPATION & SITE MANAGEMENT

Survey responses point to **uneven consultation** and **variable access to help desks/CFM**. Programs enabling **community maintenance brigades**, **information desks**, and **feedback loops** will strengthen accountability and speed issue resolution. Community engagement remains limited. Only a small proportion of households feel actively involved in decision-making, while a substantial share express willingness to participate but lack access to inclusive mechanisms. Information desks, care-and-maintenance services, and complaints mechanisms are identified as priority site management functions requiring scale-up.

COPING MECHANISMS AND NEGATIVE STRATEGIES

Households employ a range of coping strategies to manage NFI shortages, including borrowing, reducing usage, or purchasing items despite financial hardship. A notable proportion reports an inability to cope, signaling elevated protection and health risks if assistance is delayed.

PRIORITIZATION FRAMEWORK

Priority Tier Classification



Tier 1 (CRITICAL – Immediate 12-month intervention required)

Priority	Issue	Affected (based on sampling)	Rationale	Intervention
P1.1	Bamboo Infestation & Structural Replacement	69.6% (324 HH)	70% fail rate; lifespan threat	Bamboo treatment/replacement program
P1.2	Roof Weatherproofing Upgrade	58% (270 HH)	Water ingress; health risk; material decay accelerant	Roofing material provision + training
P1.3	Firebreak Enforcement & Maintenance	48% breach (223 HH)	Fire hazard; safety risk; camp-wide impact	Site-level firebreak restoration; CCCM enforcement
P1.4	Floor Finishing & Drainage	56.7% (264 HH)	Moisture, vectors, durability; 44% partial/no finish	Cement, tools, training; drainage around shelters
P1.5	Cooking Fire Safety	45% no protection (209 HH)	Burn injury; shelter fire; settlement conflagration	Fire-safe stove distribution; safety barriers; training

Tier 2 (HIGH PRIORITY – 12–24-month intervention)

Priority	Issue	Affected based on sampling (based on sampling)	Rationale	Intervention
P2.1	Internal Privacy Partitions	46% partial/none (214 HH)	Dignity, protection; 8% with zero privacy	Partition materials (bamboo net + plastic); DIY kits
P2.2	Heat Mitigation & Cooling	75.4% minimal (351 HH)	Climate stress; health risk; comfort	Shade gardening, reflective roofing, ventilation upgrades
P2.3	Landslide/Erosion Risk Mitigation	48% at risk (223 HH)	Site safety; relocation/stabilizati on needs	Drainage, stabilization works, possible relocation
P2.4	Shelter Extension Regulation & Support	50.1% extended (233 HH)	Structural & fire safety; site planning	Extension guidelines; structural assessment; CCCM coordination
P2.5	KRC Flood Mitigation	75% KRC affected	Localized crisis; drainage/site improvements	Drainage, embankments, possible precautionary relocation

Tier 3 (MODERATE – 18–36-month planning & advocacy)

Priority	Issue	Affected (based on sampling)	Rationale	Intervention
P3.1	Internal Latrine Provision	89.4% without (416 HH)	System-level gap; protection/equity/health	Pilot HH latrines; advocacy for service expansion
P3.2	Pathway Connectivity & Secondary Routes	40% <2 sides (186 HH)	Emergency access; evacuation redundancy	Secondary pathway creation; waymarking
P3.3	Shelter Locking & Security	22% vulnerable (102 HH)	Protection gap; gender/age factors	Quality lock provision; targeted assistance to vulnerable groups
P3.4	Bathing Facility Upgrades	23.5% without (110 HH)	Dignity, health, protection	In-shelter bathing construction; shared facility improvement

RECOMMENDATIONS & ROADMAP

SCCCM Recommendations of Findings

To strengthen shelter safety, functionality, and resilience ahead of seasonal hazards, the SCCC Sector recommends a coordinated package of interventions:

- **Pre-monsoon care and maintenance:**
Prioritize rapid roofing repair waves, bamboo preservation treatments, structural tie-downs, and systematic gutter and drainage refresh to reduce leakage and wind-related damage.
- **Path safety & lighting:**
Improve mobility and protection by resurfacing slippery or eroded paths, expanding solar lighting along WASH routes, and supporting households with portable lamp repair services and replacement parts.

NFI replenishment:

Address the most urgent wear-and-tear gaps by sequencing replenishment—Mats → Nets → Blankets—and providing seasonal batteries or fans. Use a hybrid modality combining in-kind items with vouchers to expand household choice and market access.

Space optimization:

Enhance shelter functionality through partitions, lofted storage solutions, and ventilation retrofits, ensuring that upgrades remain compliant with required firebreaks and access corridors.

Structural compliance:

Implement targeted campaigns for proper footings, bracing, and joint strengthening. Monitor bamboo infestation and establish scheduled replacement cycles for compromised components.

Phasing & Implementation Timeline

Phase 1 (Months 1–6): Immediate Critical Needs

- Firebreak restoration & enforcement (P1.3)
- Cooking fire safety (P1.5)
- Bamboo treatment rapid assessment (P1.1 prep)

Phase 2 (Months 7–18): Major Structural Upgrades

- Bamboo replacement program (P1.1)
- Roof weatherproofing (P1.2)
- Floor finishing & drainage (P1.4)
- Privacy partitions (P2.1)
- Heat mitigation (P2.2)

Phase 3 (Months 19–36): Systems & Long-Term

- Landslide/erosion mitigation (P2.3)
- Extension guidelines & structural support (P2.4)
- KRC flood mitigation (P2.5)
- Pathway connectivity (P3.2)
- Latrine pilots & advocacy (P3.1)

Ongoing: Capacity building, M&E, administration (all phases)

PREVAILING RISKS & VULNERABILITIES

- Environmental shocks—especially monsoon rains, cyclones, flooding, and landslides—combine with aging mid-term shelters to cause repeated structural damage. Frequent roof leakage, weakened bamboo, and inadequate drainage leave households exposed to water intrusion and unsafe living conditions, increasing yearly repair needs.
- Vector-borne disease risks rise when damaged mosquito nets, worn bedding, and leak-induced dampness create conditions favorable for mosquitos and pests. Damp floors and walls further heighten respiratory and sanitation-related health problems, especially for children, the elderly, and pregnant women
- Night-time protection risks persist due to limited lighting along WASH routes. With many households relying on poorly functioning solar lamps or candles, movement after dark becomes unsafe—particularly for women, girls, and vulnerable individuals—raising risks of accidents and harassment.
- Severe overcrowding and privacy deficits undermine well-being, dignity, and social cohesion. Congested shelters restrict sleeping, cooking, and storage space, intensify tensions within



households, and reduce opportunities for study, rest, or healthy family interaction. These interconnected risks amplify each other, reinforcing vulnerability across the camps.

KEY MESSAGES FOR COORDINATION AND PLANNING

Sustained coordination, predictable funding, and integrated SCCCM approaches are essential to prevent further deterioration and maintain minimum living standards.

- Donors & partners: Resource the shift to predictable maintenance, targeted NFI replenishment, and solar sustainability—this is the most cost-effective way to protect standards at scale.
- Government counterparts: Consider managed micro decongestion and market supportive mechanisms that complement agency pipelines.
- Communities: Expand participatory roles (maintenance brigades, reporting) supported by tool lending & technical guidance.

SUMMARY CONCLUSIONS & STRATEGIC RECOMMENDATIONS

Key Findings

1. Quality Crisis, Not Coverage Crisis: 87% of households live in mid-term shelters, but 70% report critical defects (infestation, leakage, poor flooring). The issue is durability and maintenance, not shelter availability.
2. Deterioration Accelerating: Year-on-year worsening across bamboo infestation (70%), roof leakage (58%), flooring (57%), and firebreaks (48% breach rate) indicates infrastructure aging without adequate investment in preventive maintenance or replacement.
3. Compound Environmental Vulnerability: Half of households perceive inadequate rain protection; 48% in compromised firebreak zones; 48% perceive erosion risk; 75% in KRC affected by flooding. Multiple overlapping hazards create compounded risk.
4. Protection & Dignity Gaps:
 - 89% lack internal latrines (reliance on shared facilities increases SGBV risk)
 - 46% lack adequate privacy partitions
 - 22% lack secure locking
 - 45% lack cooking fire protection
5. Missed Climate-Adaptation Opportunity: 75% of households have minimal heat mitigation; only 1.9% have cool roofs. With rising temperatures and monsoon intensification, climate-adaptive shelters are urgent.
6. Household Resilience with Limits: 63% undertook repairs in past 12 months; 50% extended shelters. Households are active agents in self-recovery but require systemic support to move from reactive patching to durable improvement.

Strategic Recommendations

1. Funding Focus on Quality Upgrades & Maintenance
 - Allocate 60% of shelter capital to rehabilitation of existing MTS units
 - Establish preventive maintenance program (bamboo treatment, roof inspection, floor maintenance)
 - Provide repair kit supplies (nails, fasteners, bamboo treatment, roofing patches)
2. Establish Integrated Shelter-NFI Quality Standards & Enforcement
 - Develop MTS quality checklist (bamboo, roof, floor, ventilation, fire safety standards)
 - Require certification of completed units before handover to household
 - Implement spot-check monitoring (10% sample quarterly)
3. Launch Immediate Fire Safety & Firebreak Restoration Campaign
 - Restore firebreaks to minimum width in all camps (community-led, CCCM-coordinated)
 - Distribute fire-safe stoves to unprotected households
 - Conduct fire-safety training (evacuation drills, emergency procedures)
4. Prioritize KRC Flood Mitigation & Geotechnical Risk Management
 - Assess drainage, embankment, and site stability in KRC and high-erosion camps
 - Implement drainage improvements (guttering, channels, sumps)
 - Develop site-specific hazard mitigation plans
5. Integrate Heat-Mitigation into Shelter Upgrades
 - Provide shade-garden promotion (saplings, seeds, maintenance support) as entry point
 - Pilot reflective roofing materials in high-heat camps
 - Upgrade ventilation (cross-bracing, upper openings) in roof designs
6. Advance Internal Latrine Provision Through Pilot & Advocacy
 - Pilot 50–100 household latrines in willing camps
 - Conduct WASH service assessment to understand barriers to in-shelter provision
 - Advocate with sector partners for system-level latrine expansion
7. Strengthen Carpenter Capacity & Local Building Standards
 - Train 30+ refugee carpenters in:
 - Proper MTS construction (bamboo joining, fastening, ventilation)
 - Bamboo treatment and preservation (termite prevention)
 - Fire-safe cooking space design
 - Establish carpenter certification & linkage to opportunities

8. Develop Managed Shelter Extension Protocol
 - Create extension guidelines (structural safety, firebreak compliance, utilities coordination)
 - Require structural assessment before major extensions
 - Link CCCM site planning with household extension demands

Monitoring & Evaluation Framework

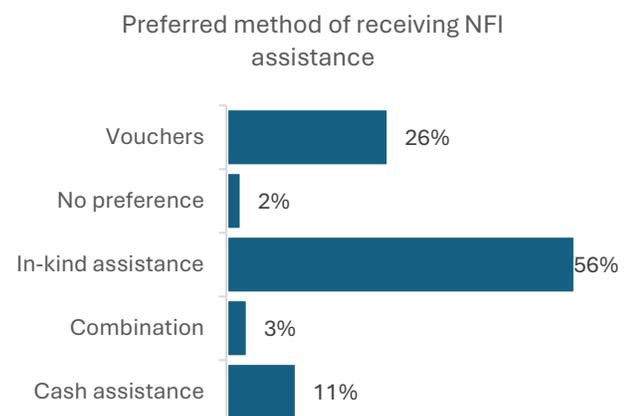
Key Performance Indicators (KPIs):

KPI	2025 Baseline	2026 Target	2027 Target
Bamboo infestation rate	69.6%	45%	25%
Roof leakage rate	58%	40%	20%
Flooring defect rate	56.7%	35%	15%
Firebreak maintenance compliance	52%	75%	90%
Cooking space fire protection	55%	75%	85%
Privacy partition adequacy	54.4%	70%	80%
Heat mitigation implementation	24.6% "nothing"	10% "nothing"	5% "nothing"

Non-Food Items (NFI)

Assessment Overview and respondent profile

The Non-Food Items (NFI) assessment was conducted across the refugee camps in Cox's Bazar to understand household-level NFI needs, gaps, and utilization patterns. Out of the total 465 households surveyed, 404 households (86.9%) provided responses on NFI-related questions. This comprised 40 households assessed exclusively for NFI needs and 364 households assessed for both shelter and NFI. The assessment was distributed across both Teknaf (110 respondents, 23.7%) and Ukhiya (355 respondents, 76.3%) upazilas.



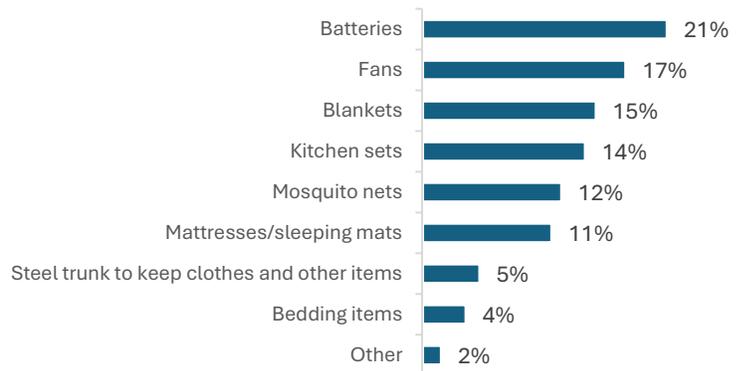
NFI Priorities and Critical Needs

Household-level assessments revealed priority needs across multiple NFI categories essential for survival, health, dignity, and basic living standards. The data indicates that families continue to face critical gaps in several key non-food items, with varying severity levels across different camp locations and household compositions.

Primary priority items identified include:

- **Vector Control & Health Items**- Mosquito nets, insecticides, and related disease prevention materials
- **Hygiene & Sanitation**- Bathing materials, washing items, and sanitation products
- **Bedding & Sleeping Materials** - Mattresses, blankets, and sleeping items for all household members
- **Lighting & Fuel** - Kerosene, fuel for heating and cooking, solar lights, and lanterns
- **Kitchen & Cooking Equipment** - Pots, pans, utensils, and fuel-efficient stoves
- **Water & Storage**- Containers for water collection and storage
- **Dignity & Personal Items** - Gender-specific hygiene products, clothing, and personal care items

Most needed 3 HH NFI items

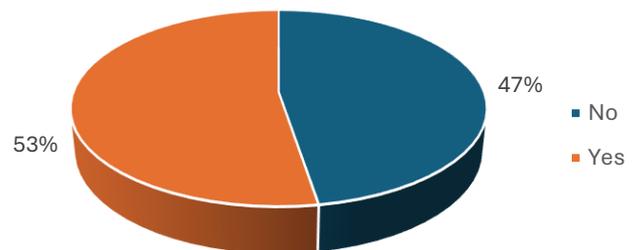


Household Characteristics and Family Size Impacts

The assessment data reflects varying household compositions across the camps, which directly correlates with NFI needs intensity. Larger households and those with specific vulnerabilities (young children, elderly, persons with disabilities, female-headed households) demonstrated heightened NFI requirements, particularly in categories such as:

- Increased bedding requirements for larger households
- Enhanced hygiene product needs for households with children and elderly members
- Greater fuel and lighting needs for larger family units
- Higher demand for kitchen equipment and utensils

Kitchen set sufficient for HH

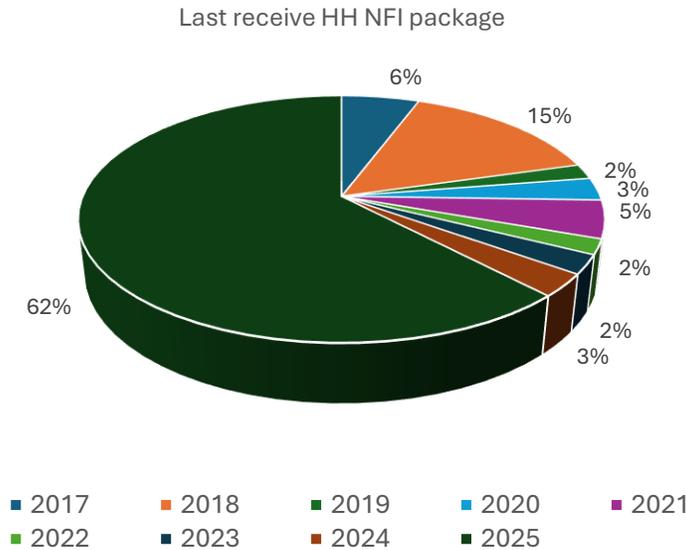


NFI Coverage and Distribution Analysis

Current NFI assistance coverage shows mixed outcomes across camp locations. While some camps report relatively recent NFI package distributions, a significant proportion of households report extended gaps since last receiving assistance. The assessment identified the following patterns:

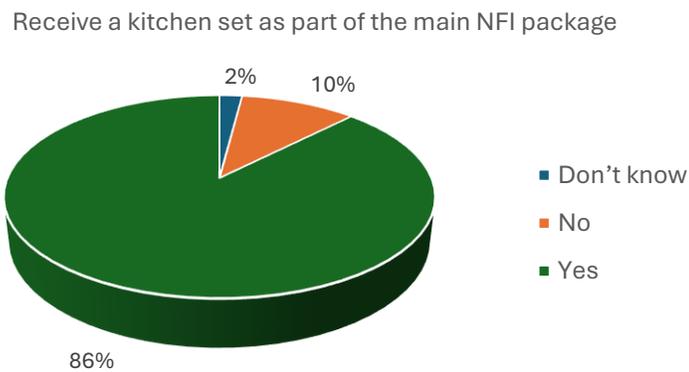
Distribution Frequency Observations:

- Some households reported receiving NFI assistance within the last 3 months
- A notable portion reported gaps of 6 months or longer
- Seasonal variations in assistance patterns were noted, particularly related to monsoon preparation and winter seasons
- Newly arrived households and recent population movements created localized gaps in coverage



NFI Package Composition Gaps:

- Limitations in meeting all household-level needs within standard package allocations
- Insufficient quantities of high-demand items (particularly mosquito nets and bedding)
- Gaps in gender-specific and age-appropriate items
- Limited coverage for specialized needs (persons with disabilities, elderly care items)





Condition Assessment of Existing NFI Items

Household assessment of existing NFI items revealed significant wear and deterioration across multiple categories. The condition assessment focused on functionality, safety, and remaining useful life:

Key Findings on Item Condition:

- **Worn/Partially Functional Items:** A substantial proportion of household NFI possessions show signs of heavy use, wear, and partial functionality. This is particularly evident in bedding materials, kitchen equipment, and utensils.
- **Safety Concerns:** Worn cooking equipment, deteriorated water containers, and damaged lighting items pose potential safety and health risks.
- **Lifespan Depletion:** Many items have exceeded expected useful life spans given the intensive use in camp contexts and environmental conditions (heat, humidity, pest exposure).
- **Storage & Maintenance Challenges:** Limited household storage capacity and challenging environmental conditions (monsoons, humidity) accelerate deterioration of organic and composite materials.

Seasonal and Environmental Factors Affecting NFI Needs

The assessment identified critical seasonal patterns influencing NFI requirements:

Monsoon Season (June-September):

- Increased need for waterproof materials and storage containers
- Enhanced demand for bedding to manage moisture
- Greater requirements for fuel and heating items
- Elevated vector control needs (mosquito nets, insecticides)

Dry Season (October-May):

- Higher fuel requirements for cooking and heating during cooler months
- Maintenance of water storage capacity for dry periods

Year-Round Needs:

- Consistent demand for hygiene and sanitation items
- Ongoing vector control requirements
- Regular replacement of high-consumption items (soap, fuel, water treatment)

Vulnerability-Specific NFI Requirements

Assessment findings highlight differential NFI needs across vulnerable populations:

Female-Headed Households:

- Limited capacity for fuel collection and heavy item procurement
- Increased hygiene product requirements
- Enhanced sleeping arrangements and light provision

Households with Children:

- Elevated bedding and clothing requirements
- Increased hygiene item consumption
- Age-appropriate cooking and serving equipment needs

Elderly and Persons with Disabilities:

- Specialized bedding and comfort items
- Accessible storage solutions
- Enhanced lighting for mobility and daily activities
- Gender-specific dignity items with consideration for functional limitations

Recent Arrivals:

- Acute gaps across all NFI categories
- Elevated needs for basic survival items
- Compressed timeline for assistance package delivery

Inter-Household Sharing and Coping Mechanisms

The assessment revealed household-level coping mechanisms and sharing patterns:

- Many households report sharing NFI items with neighboring families during acute shortages
- Informal lending arrangements for essential items (cooking equipment, water containers)
- Prioritization of certain household members for limited items (children receive priority for bedding)
- Use of makeshift alternatives when standard items are unavailable
- Community-level resource pooling for major household needs

These coping mechanisms, while demonstrating community resilience, indicate underlying scarcity and the need for strengthened programmatic response.

Market Availability and Household Purchasing Capacity

Assessment data indicates variable availability of NFI items in local markets and limited household cash resources for supplementary purchases:

Market Access Findings:

- Essential items (soap, fuel, basic containers) available in settlement markets
- Specialized items (vector control products, specific bedding types) with limited market availability
- Price fluctuations affecting household purchasing capacity, particularly for fuel items
- Availability gaps of quality items, with lower-quality substitutes often the only market option

Purchasing Capacity Constraints:

- Limited cash income opportunities for refugee households
- Dependency on assistance for majority of NFI needs
- Seasonal income variations affecting purchasing capacity
- Competing priorities between NFI and food/shelter needs

Priority Recommendations and Response Priorities

Based on comprehensive assessment findings, the following priority areas are recommended for programmatic attention:

Immediate Priority (0-3 months):

1. **Mosquito Nets and Vector Control**- Address critical malaria and dengue prevention needs before monsoon escalation
2. **Bedding Materials**- Ensure adequate sleeping arrangements for all household members
3. **Hygiene Items**- Ensure consistent supply of soap, water treatment materials, and sanitation products
4. **Fuel and Lighting**- Address acute shortages preventing food preparation and basic daily activities

Medium-term Priority (3-6 months):

1. **Kitchen Equipment Replacement**- Replace worn and unsafe cooking equipment
2. **Water Storage**- Provide adequate containers for household water management
3. **Seasonal Preparation**- Distribute monsoon/winter-specific NFI items based on seasonal calendar
4. **Dignity Items**- Ensure adequate supply of gender-specific and age-appropriate items

Longer-term Priority (6+ months):

1. **Durable Item Provision** - Introduce longer-lasting alternatives for high-consumption categories
2. **Specialized Needs Programming** - Develop targeted response for vulnerability-specific requirements
3. **Market Strengthening**- Support local market availability of quality NFI items
4. **Household Resilience** - Build household-level capacity for NFI management and minor repairs

Sector Coordination and Implementation Considerations

Effective NFI response requires:

- **Partner Coordination** - Clear delineation of geographic responsibility and commodity allocation across implementing partners
- **Targeting Mechanism** - Standardized household-level vulnerability assessment informing NFI prioritization
- **Distribution Schedule**- Predictable, regular distribution cycles enabling household planning



- **Quality Assurance**- Adherence to SPHERE standards and technical specifications for all distributed items
- **Feedback Mechanism**- Systematic household feedback collection on NFI package relevance and appropriateness
- **Stock Management**- Adequate pipeline planning to prevent stock-outs of critical items
- **Beneficiary Communication**- Clear notification of distribution schedules, eligibility criteria, and item specifications

Monitoring and Evaluation Framework

Ongoing assessment of NFI response effectiveness requires monitoring of:

- **Coverage Indicators** - Percentage of vulnerable households receiving adequate NFI packages
- **Item Functionality**- Assessment of existing household item condition and remaining useful life
- **Consumption Patterns**- Tracking of high-demand items requiring frequent replenishment
- **Sector Response Gaps**- Regular documentation of unmet needs and geographic/population gaps
- **Beneficiary Satisfaction**- Periodic assessment of household satisfaction with NFI packages and relevance
- **Market Price Monitoring**- Tracking of local market prices informing purchasing decisions and capacity assessments

CONCLUSION

Shelter and NFI conditions across the camps are at a critical juncture, with aging structures, persistent leakage, deteriorating NFIs, and limited lighting creating a cycle of vulnerability that intensifies with each monsoon season. Without a strategic shift toward predictable, maintenance-focused programming, shelters will continue to degrade faster than they can be repaired, leaving households increasingly exposed to environmental hazards and protection risks. The findings underscore the need for coordinated, multi-sector action, integrating shelter repairs, NFI replenishment, solar O&M, drainage improvements, and community participation mechanisms. This analysis provides the evidence base required for informed decision-making, enabling partners to prioritize high-risk areas, allocate resources efficiently, and strengthen resilience ahead of seasonal shocks. With proactive planning, strengthened coordination, and sustained investment, the SCCCM Sector can help stabilize living conditions, reduce recurring risks, and improve safety, dignity, and well-being for refugee households.

Data Collection Methods:

- Household surveys (quantitative): Annual representative sample (150 HH / year)
- Qualitative focus groups: Seasonal (shelter quality, user experience, barriers)
- CCCM spot-checks: Quarterly (quality assurance, standard compliance)
- Community feedback: Monthly (community meetings, complaint mechanisms)

APPENDIX: DEFINITIONS & TECHNICAL NOTES

Definitions

- *Mid-Term Shelter (MTS)*: Engineered temporary structure designed for 3–4-year durability; typically, bamboo frame, bamboo/wood roof, matting, concrete/improved earth flooring
- *Emergency Shelter Kit (ESK)*: Basic tarpaulin/plastic sheeting structure; rapid deployment; <1 year design life
- *Borak Bamboo*: Specific bamboo species used in shelters; susceptible to termite/borer attack without treatment
- *Garenja*: Rohingya term for covered outdoor veranda/seating area; multi-use for cooking, storage, social gathering
- *Firebreak*: Open cleared space between shelter clusters; minimum width varies (6–10m typical) to prevent fire spread
- *SPHERE Standards*: International humanitarian standards

Camp-Level High-Risk Clusters

Bamboo Infestation High-Risk: Camps 13, 14, 26, 4, 5, 6 (>80% infestation)

Roof Leakage High-Risk: Camps 24, 6, 18, 20 (>80% leakage)

Firebreak Breach High-Risk: Camps 13, 14, 19, 1E, 1W, 2E, 2W (>65% non-compliant)

Flood/Drainage Crisis: KRC (75% affected)

Erosion Risk High: Camp 4Ext (95%), Camp 19 (85%), Camp 1W (70%)

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