Lessons Learned

For Winterization 2024-2025

UKRAINE
SHELTER CLUSTER
Coordinating Humanitarian Shelter and Settlements

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Contents

Introduction

These Lessons Learned were developed through a collaborative process within the **Shelter Cluster's Technical Working Group**, which included representatives from:

19 national and international humanitarian organizations and agencies:
ACTED
Angels of salvation
Caritas Ukraine
DRC
ERC
ICRC
FAO
Medair
NRC
People in need
R2P
Save the Children International
Solidarites International
Swedish Red Cross
TGH
UNHCR
UNICEF
Unity for the Future
ZOA

Thematic inter-agency coordination:
Cash Working Group
CCCM Cluster
Protection Cluster

Drawing on findings from monitoring visits and partner consultations, as well as data collected through the Joint Shelter Cluster Post-Distribution Monitoring Tool, the process combined both qualitative and quantitative inputs to reflect operational experiences from the 2024–2025 winter period.

1. Strategic Overview and Operational Context

Winter 2024-2025 marks the third winter since the full-scale invasion of Ukraine began.
The winterization response was marked by notable operational strengths. National-level coordination, combined with strong sub-national leadership across regional hubs, enabled better alignment of partner activities and improved the geographic distribution of assistance. Sub-national coordinators played a vital role in maintaining close contact with local authorities, troubleshooting emerging issues, and supporting targeting.
The updated Winterization Recommendations 2024–2025 were widely used by partners and contributed to the consistency of the response. Tools such as the firewood calculation guidance and clear eligibility parameters for each assistance modality helped harmonize interventions and strengthened partner decision-making. The use of harmonized tools, including the Joint Shelter Cluster PDM questionnaire and RAIS+ (Ukraine Assistance Monitoring System), enhanced data comparability and accountability across the response. Overall, partners demonstrated strong adaptability, particularly in regions experiencing new displacement, allowing for timely scale-up and improved coverage of priority needs.

Highlights of Winterization 2024-2025:

1. During the 2024-2025 winter season, the Shelter Cluster partners collectively reached over 1 million individuals through winterization support against the Winter Response Plans 1.72 million individuals. The Cluster response was 71% cash-based and 29% in-kind. The response was geographically focused primarily on the crescent, with most of the support going towards winter energy (492K), winter cash for utilities (322K), and NFIs for winter (103K).
2. Planned activities for winterization included providing winter cash for utilities, winter energy, winter heating appliances (solid fuel/electric/liquefied gas heaters), NFI for winter, winter clothing, and insulation of substandard houses.
3. The Shelter Cluster promptly addressed the identified gaps in winter energy requirements as communicated by the Ministry of Reintegration and oblast military administrations. Partners efficiently mobilized resources to bridge these gaps, ensuring that the needs of vulnerable populations were met.
4. Assistance was guided by the principle of deduplication. The Shelter Cluster has consistently worked to minimize duplication in winter activities both within and between clusters through traditional coordination mechanisms. A new deduplication system, RAIS+, was established and utilized by partners to identify previously assisted persons.
5. In the 2024/2025 winterization effort, 60 reporting partners collaborated, with UNHCR, UNICEF, URCS, and IOM contributing the most, and involving 99 implementing partners, with UNHCR, UNICEF, URCS, and Proliska providing the most assistance.
6. Following Ministry of Reintegration Order No. 309 dated December 22, 2022, nine regions (excluding the Kyiv region) were identified as priorities for assistance with solid fuel, including both in-kind and cash modalities: Dnipropetrovsk, Donetsk, Zaporizhzhia, Luhansk, Mykolaiv, Sumy, Kharkiv, Kherson, and Chernihiv oblasts.
7. Following the release of the Winterization Recommendations 2024-2025, partners began planning and conducting assessments to ensure coverage of households impacted and affected by the recommendations. Many of the locations that selected cash as a modality were found to be in frontline and border areas, while in-kind modalities were selected based on previous years' experience.

8. The standardized PDM reporting template (Joint Shelter Cluster Post-Distribution Monitoring Tool), as part of Winterization Recommendations 2024-2025, enabled partners to submit harmonized data across locations and modalities. This enabled the Shelter Cluster to create a unified Dashboard providing comprehensive and comparable insights at the national level.

Please refer to the results from the last winter season on the Shelter/NFI Cluster Ukraine Website – the link is available HERE.

2. Cluster-Led Coordination of SNFI Partners

In 2024, the Shelter Cluster maintained a robust national and sub-national coordination mechanism to ensure effective winterization planning and implementation. At the national level, monthly coordination meetings in Kyiv brought together all Hubs to review response monitoring data, align priorities, and discuss operational challenges. These were supplemented by strategic retreats and thematic workshops to harmonize approaches and enhance technical capacity across partners. Sub-national coordination was driven through thematic and operational forums in each regional Hub (East, North, and South). Sub-national clusters held regular planning sessions and situational awareness reviews, including back-to-back missions and field-level coordination meetings.

In preparation for the 2024-2025 winter season, partners highlighted the need for a rapid and transparent exchange of implementation plans to better align assistance with existing gaps. At the same time, hromada-level authorities emphasized the importance of being informed about which organizations were planning activities in their communities to ensure comprehensive coverage of households in need of solid fuel or equivalent cash support.

Recommendations:

- Ensure the timely sharing of partners' implementation plans with the Shelter Cluster and local authorities to facilitate proper coordination, early identification of geographic or programmatic gaps, and enable real-time adjustments in planning.
- Promote the use of standardized tools for gap mapping and activity planning at both national and sub-national levels to support transparent alignment of interventions with evolving needs and response priorities.
- Strengthen mechanisms for bi-directional information exchange between local authorities and partners, particularly in hard-to-reach areas, to improve the accuracy of household coverage and reduce the risk of duplication.
- Contingency plans for front-line areas should account for sudden changes in access and security conditions, including clear timelines and flexible response modalities.
- The Shelter Cluster should promote partner coordination frameworks that systematically integrate gender equality considerations in modality planning and implementation.

3. Government Engagement

In September 2024, under Cabinet of Ministers Resolution 993, a public cash subsidy of 21,000 UAH for solid fuel was launched in coordination with relevant government ministries and humanitarian actors. The open application process enabled wide participation, including households not previously identified as in need. However, in some instances, multiple applications from the same household were submitted, which overwhelmed the limited funding available and created confusion regarding coverage, particularly in areas where humanitarian actors had already planned seasonal interventions.

In parallel, other actors also introduced additional interventions using different eligibility criteria. For example, some actors adopted a broad targeting approach, covering entire household categories rather than focusing on specific vulnerabilities. While this enabled early implementation, it also contributed to confusion at the field level, as beneficiary lists in some areas exceeded the number of households officially identified as in need during the planning stage with the authorities. These discrepancies complicated the validation of unmet needs and efforts to coordinate caseload mapping and allocation of targets to partners.

In locations where multiple programs under the same government resolution operated with divergent targeting approaches, both local authorities and humanitarian actors faced challenges in reconciling differences. This led to community frustration and increased the risk of duplication. The situation highlighted the importance of transparent targeting strategies, clearly defined caseloads, geographic prioritization, and early alignment among actors engaged in delivering government-endorsed assistance.

Furthermore, due to the lack of real-time deduplication capabilities in existing systems, some partners were required to reselect or relocate beneficiaries mid-implementation, leading to delays. Regional administrations applied varying eligibility criteria, and the presence of dual funding channels managed by different government institutions further complicated operational consistency. Additionally, protection mainstreaming and post-distribution follow-up were limited in several locations.

Looking ahead, early coordination on targeting strategies (both in terms of vulnerability, geographic prioritization), consistent use of deduplication tools, and greater accountability to affected populations will be critical to improving the effectiveness and equity of future winter response efforts.

In several oblasts, collaboration with oblast military administrations (OMAs) proved instrumental in supporting access to hard-to-reach locations. Their facilitation of permits and support in transport and delivery logistics helped address constraints where standard humanitarian channels faced delays. Their proactive engagement was a key enabling factor in the overall implementation of the response.

Recommendations:

Strengthen targeting alignment and transparency

- Establish clear, harmonized targeting criteria and ensure alignment across all implementing actors (government and humanitarian).
- Promote early coordination on caseload sizes and geographic coverage to avoid overlap and confusion.
- Ensure transparency in beneficiary selection, particularly when multiple programs operate under a shared resolution or framework.

- Government programs should be communicated at least 2–3 months before implementation to allow humanitarian actors to avoid duplication and reallocate resources efficiently.
- An integrated coordination mechanism for all programs distributing solid fuel, including prior harmonization of targeting criteria, should be established to ensure balanced and equitable coverage.

Improve deduplication and data management

- Enhance the real-time functionality of RAIS+ for deduplication and visualization across partners and funding streams.
- Encourage consistent use of interoperable tools to enable effective beneficiary verification and gap analysis.
- Ensure that multiple applicants from the same household can be flagged and resolved during the registration process.

Coordinate early and consistently at the subnational level

- Strengthen early engagement with oblast and raion administrations during preparedness and planning phases.
- For the next year, engagement with oblast military administrations and local actors should begin as early as March, and no later than May, to validate targeting strategies, identify gaps, and avoid overlaps. Joint planning and gap-mapping processes should be formalized by June to feed into inter-agency winter response planning and funding frameworks.
- Include local government engagement as a standard component of oblast-level coordination protocols

Ensure coherence in parallel funding streams

- Clarify roles and responsibilities between government entities (e.g., the Ministry of Reintegration, the Pension Fund, the Ministry of Social Policy) to reduce fragmentation.
- Promote the use of one-stop or linked beneficiary registration and validation mechanisms where multiple funding channels exist.

Enhance protection, mainstreaming, and accountability

- Integrate protection considerations into beneficiary identification, distribution, and post-distribution monitoring (e.g., follow-up on safe fuel usage, fire hazards, exclusion risks).
- Scale up community feedback and complaint mechanisms to ensure accessibility and responsiveness.

Leverage the role of the oblast military administrations

- Continue collaborating with OMAs to facilitate access to hard-to-reach or frontline areas.
- Partners to support OMA in fuel delivery logistics.
- Include OMAs in coordination and planning efforts to improve reach and response coherence.

4. Coordination with Local Authorities and Community Engagement

Coordination with Local Authorities and List Management

Collaboration with local hromadas and oblast authorities enabled the identification of initial needs and winter planning. However, over-reliance on official administrative data limits targeting accuracy and may exclude vulnerable households that are not present in formal records. Coordination mechanisms must bridge the gap between government planning and humanitarian verification.

Several organizations did not share their beneficiary lists with local authorities, while others chose not to use the official lists. This led to discrepancies in perception – local actors assumed that more people had received assistance than was the case, despite ongoing unmet needs. Authorities also noted that they had limited interactions with certain organizations, resulting in cases of duplication of assistance.

Additionally, some hub municipalities refused to participate in assessments or data collection due to limited information about aid plans or perceived low return on engagement. This reduced trust and caused coordination gaps, which were only partially addressed late in the implementation period.

While some adjustments to programming were made based on inputs from local authorities or inter-agency coordination mechanisms, there was no systematic analysis of where coordination gaps occurred or how feedback loops functioned across oblasts. To improve future operations, a structured review using available data sources, such as RAIS+ statistics on partner presence, coverage, and assistance overlap, should be undertaken to assess coordination performance. This would help identify key bottlenecks, especially those related to beneficiary overlap, information flow, and decision-making, which were not fully addressed mid-season and limited the sector's ability to adapt.

Authorities emphasized that many remote settlements lack access to solid fuel markets, complicating the use of cash assistance or market-based approaches. This reinforces the need for market assessments to be conducted in conjunction with needs identification.

Gaps in Inclusion and Technical Access Barriers

A minority of people were excluded from aid due to registration issues, technical errors, difficulties with digital platforms, inadequate outreach, or delays in being contacted or verified (according to the Cluster's PDM, this occurred in 1.4% of cases). These exclusion risks were heightened in communities where communication relied entirely on local authorities or where partners did not cross-validate official lists against each other.

Feedback Mechanisms and Beneficiary Reporting

Monitoring revealed that issues such as short delivery or poor fuel quality often went unreported. This was largely due to limited awareness among beneficiaries about available feedback and complaint mechanisms, as well as doubts about whether reporting such issues was appropriate. Some beneficiaries reported that they know how to call the organization providing assistance, but do not understand which issues and problems they can discuss with the organization.

It was notable that many recipients of cash and solid fuel had limited interactions with the organizations who provided support.

Gender considerations: Consultations with women and men revealed gender-specific needs influencing winterization assistance. Women emphasized the need for pre-chopped firewood, noting challenges with large logs that couldn't fit stoves or be chopped independently.

Recommendations:

- Enhance market assessments: Conduct market accessibility assessments early in the planning phase, especially in remote or hard-to-reach areas, to determine the appropriate balance between cash and in-kind modalities.
- Ensure pre-distribution Communication: Inform beneficiaries in advance about the type of assistance, selection criteria, and modality. Strengthen local-level communication campaigns, including pre-distribution explanations of aid content.
- Engage local authorities: Involve hromada-level authorities to regularly update data on solid fuel needs and identify coverage gaps using the Cluster's coordination tools and tables.
- Ensure multi-channel outreach and registration: Maintain both online and offline registration channels. Introduce simplified feedback loops to capture eligible but unregistered households.
- Strengthen feedback mechanisms: Actively promote feedback channels through orientation sessions, printed materials, and trusted community focal points. Clarify the purpose of these channels, expected response timelines, and data confidentiality.
- Promote gender-responsive programming: Integrate gender-sensitive considerations into winter assistance programming (e.g., provision of pre-chopped firewood to female-headed households or older persons) to improve suitability, safety, and impact.

5. Targeting, Prioritization, and Vulnerability Criteria

In the 2024–2025 winter season, the Ministry of Reintegration and the Shelter Cluster expanded the vulnerability criteria used to identify populations in need of solid fuel assistance. Shelter/NFI and Protection Clusters jointly developed a recommended list of Individual Vulnerability and Socio-Economic Criteria relevant to Shelter Cluster activities. This list was presented and agreed upon during consultations with the Ministry for Reintegration, incorporating feedback from oblast military administrations. The full list is available in the Activities Handbook 2025 (Annex C). While the list serves as a harmonized reference to support more consistent targeting across actors, individual organizations and UN agencies have adapted it in line with their internal policies, mandates, and operational capacities.

In the Winterization Recommendations 2024–2025, Section 6.3 "Targeting, Prioritization & Vulnerabilities" includes a comprehensive beneficiary selection framework. This framework outlines prioritized target groups, priority areas for winterization assistance, and other relevant details.

In addition, the Activities Handbook provides Operational Guidelines on Scoring Vulnerabilities to support internal partner decision-making. However, these guidelines are non-binding. The final design and application of scoring systems remain at the discretion of each implementing organization and/or donor agency, resulting in differences in how vulnerability scores are calculated and applied in practice.

In June 2024, local authorities collected corresponding data on the settlement level, categorizing solid fuel needs by modality. Based on the data collected, the Shelter Cluster developed dedicated maps at the raion and hromada levels to support coordination between authorities and partners regarding household solid fuel needs. These maps served as a planning tool for solid fuel distributions throughout the 2024–2025 winter season. In dynamic oblasts such as Kharkivska, Dnipropetrovska, and Donetska, where the humanitarian context changed frequently, the Shelter Cluster regularly updated planning data and adapted coordination to reflect the evolving needs on the ground. The Shelter Cluster also gathered logistical information from local authorities, such as road types and door-to-door delivery needs, which was shared with partners in July. However, these initial references may not have fully captured access constraints in smaller or more remote settlements. Partners are therefore encouraged to complement this baseline data with localized logistical assessments during the needs assessment phase, particularly when preparing for deliveries in hard-to-reach rural areas.

Recommendations:

Improve targeting approaches and vulnerability alignment:

- Given constrained humanitarian funding, a targeted approach is the recommended modality for the 2025–2026 winter response. Blanket assistance should be considered only as an exception in clearly justified cases, and it must be subject to prior coordination with the Shelter Cluster.
- Enhance needs assessment protocols for solid fuel cash assistance to ensure that beneficiary selection reflects the war-affected and energy-insecure profile of households. While working through ministerial lists may offer advantages, the targeting rationale should be supported by field-level vulnerability data or triangulated technical assessments to avoid including households that are less affected.

- Strengthen protection mainstreaming throughout the winterization response, especially for cash-for-solid-fuel programming. A more hands-on approach to registration and targeting is needed to ensure that the most vulnerable households, such as those facing multiple compounding risks, are not excluded due to passive or remote implementation models.
- Encourage partners to document and share how they apply the harmonized vulnerability criteria, including any necessary adaptations to meet organizational mandates. This will improve transparency, comparability, and coordination across actors.

Strengthen coordination and feedback loops with authorities

- Establish regular feedback and data exchange mechanisms between local authorities and implementing partners on list validation, eligibility discrepancies, and implementation adjustments, particularly in those oblasts where needs change rapidly.
- Capacity building at the oblast and hromada levels is critical to ensure a unified understanding of vulnerability and eligibility criteria.

6. Key Lessons by Activity

The following observations reflect systemic challenges encountered across diverse implementation settings. While implementation was carried out under complex and often rapidly changing conditions, lessons reflect shared areas for improvement rather than isolated shortcomings.

6.1 Winter Cash for Utilities

(Heating)

The data presented below, collected prior to the 2024–2025 winter season, reflects the dominant heating sources used by households in the East region. Although it predates the reporting period, the distribution is likely to remain consistent with previous winters, reinforcing the continued relevance of Winter Cash for Utilities as a key modality to address energy needs, particularly in urban and peri-urban areas. With most households depending on gas or electricity for heating, or district heating, utility-focused assistance remains a key modality for supporting energy needs in urban and peri-urban areas.

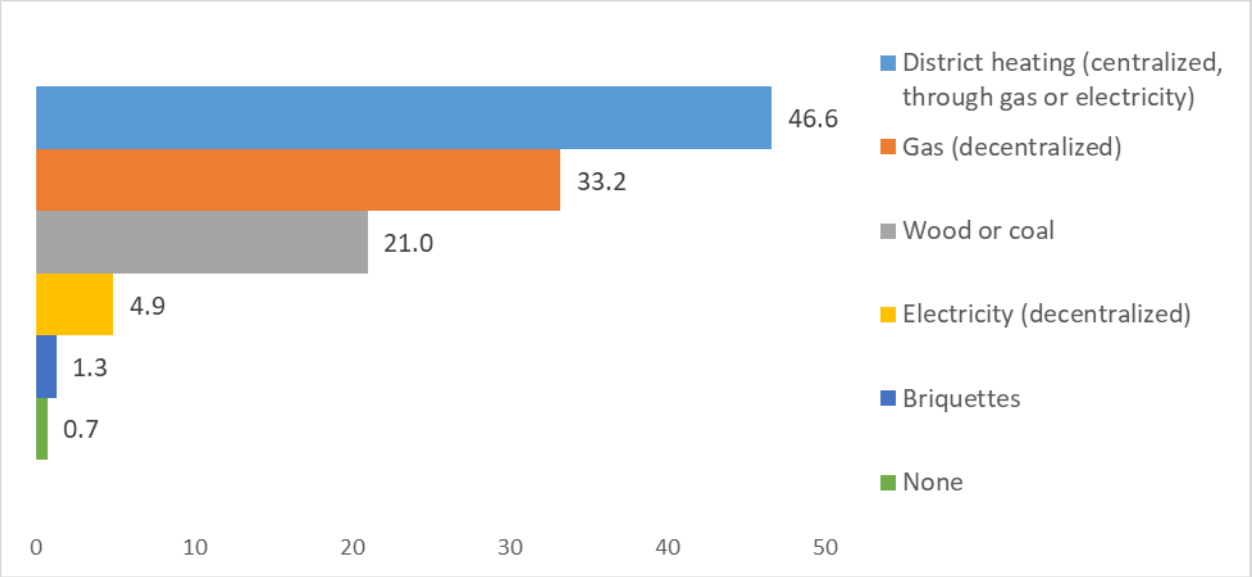

Figure 1 – Percentage of households by main heating source (East region)[1]

During monitoring visits, partners observed the following issues:

- Beneficiaries often lacked a clear understanding of the distinction between “Cash for Solid Fuel” and “Cash for Utilities.” This confusion was exacerbated by the higher transfer value associated with solid fuel assistance, leading to misunderstandings and dissatisfaction.
- Limited differentiation between modalities at the point of delivery was observed in some contexts, leading to beneficiary confusion regarding the purpose and use of the assistance received.
- Reference cost for centralized heating was calculated without factoring in regional differences in utility tariffs, resulting in under- or overestimated assistance in certain areas.

[1] MSNA 2024 Ukraine

- In several municipalities, the implementation of the Cash for Utilities activity was hindered by a challenge: a lack of formal agreements with local utility companies made it impossible to verify account numbers or track payments, resulting in the inability to disburse support to eligible households. Additionally, in the absence of centralized verification systems, some households received duplicate payments or incorrect amounts, resulting in inefficiencies and funding gaps within the program.

Recommendations:

- Ensure that written agreements with utility providers are signed prior to program rollout, especially in large urban areas.
- Explore opportunities to strengthen deduplication mechanisms, including alignment with government assistance schemes (e.g., utility subsidies or social benefits), while recognizing current challenges related to data sharing and interoperability. Where technical integration is not feasible, promote the use of informed consent and self-declaration mechanisms during registration to minimize overlap.
- Consider pre-agreements or framework MOUs with national-level utility networks for future assistance. The Winterization Recommendations should specify how to calculate utility-related cash assistance when payment obligations differ based on geographic location or service provider arrangements. Collaborate with oblast utility regulators or national agencies to access up-to-date regional tariff information.
- Shelter Cluster partners can inform beneficiaries about the different types of winter cash programming they are providing and explain how it is tailored to the type of heating, including an explanation of the varying cash amounts.
- Develop and disseminate clear, standardized messaging explaining the difference between Cash for Solid Fuel and Cash for Utilities. Use visual aids, translated materials, and local communication channels (e.g., community leaders) to improve awareness and manage expectations.
- Proper identification of primary heating needs and heating methods is essential in contexts where households may rely on gas or electric heating systems, including those in both private homes and multi-apartment buildings. This ensures that households reliant on solid fuels are not deprioritized due to inaccurate targeting. At the same time, in areas where solid fuel assistance is restricted, such as the 0–10 km zones defined in Resolution 993, households without access to solid fuel should be prioritized for cash assistance, specifically for heating costs. Where possible, area-based programs should integrate cash for heating utilities as part of winter energy support. In cases where programs are activity-based (e.g., focused only on solid fuel), excluded households with unmet heating needs should be considered for complementary assistance modalities.

Gender Considerations: Except for known differences in household roles regarding utility management, future monitoring should assess whether women or female-headed households face specific access barriers or confusion regarding cash assistance modalities.

6.2 Winter Energy

(Solid fuel and liquified gas distribution)

Heating Sources and Modality Targeting

Solid fuel remained the primary heating source for most supported households in 2024–2025.

PDM Results Dashboard[2] and field reports confirmed that over **95%** of beneficiaries used firewood, briquettes, coal, or pellets, validating targeting decisions, particularly in rural areas.

Among households using solid fuel, firewood was the most reported choice, cited by 63 percent of respondents. Briquettes were used by approximately 25 percent, while call and pellets each account for around 8 percent and 4 percent, respectively.

Last winter, the calculation method for solid fuel was detailed and based on the calorific value of solid fuel. The amount of solid fuel per household depended on the quality of the solid fuel. For briquettes, a conversion from MJ/kg to Gcal/ton was necessary to align with DSTU standards and the recommended seasonal heat amount.

In-kind firewood assistance consistently aligned with technical standards. Many partners ensured delivery of recommended hardwood types (e.g., oak, hornbeam) in **stacked cubic meters**, providing beneficiaries with sufficient and measurable fuel quantities.

However, **a misinterpretation of technical guidance** occurred: several partners treated the 7.5 m³ firewood example as a fixed standard, applying it across all wood types. This led to under-delivery when softwood or mixed firewood was used, which requires a higher volume to achieve the equivalent **seasonal heat output (14.37 Gcal).**

Briquette-using households frequently **lacked firewood for ignition** - this was not reflected in Shelter Cluster recommendations and, consequently, in transfer calculations.

Reports indicated variability in briquette quality, with challenges related to compression, fragility, and packaging affecting end-user satisfaction.

Sectoral cash-based support offered greater flexibility but also presented challenges. Some households purchased firewood **by loose volume (e.g., delivered by truck or trailer[3])**, not realizing that loose firewood contains significantly more air gaps compared to stacked firewood. As a result, the actual amount of usable wood was lower, and in many cases, it was insufficient to cover heating needs for the full winter season (**six months).** Since sellers often quote prices based on loose volume (in truck beds) or stacked cubic meters without clearly explaining the difference, households require better guidance on how to calculate and plan appropriate firewood quantities depending on the delivery format.

In some cases, the use of cash assistance for non-solid-fuel expenses may have been influenced by gaps in communication around the intended and **restricted purpose of the support.**

There is also a restriction from forestry: at the end of the year, quotas for logging are closed (purchases become impossible, and people wait until the following year, when new quotas open).

Due to contextual and operational constraints, cash assistance in some areas was delivered later in the season, reducing household purchasing power. Where advance communication was limited, households tended to procure fuel independently, highlighting the importance of timely and clear information sharing on the nature and purpose of assistance.

Targeting gaps was noted where households were technically connected to gas or electricity but used solid fuel heating appliances as a reserve source – or vice versa. The question of excluding

[2] PDM Dashboard created by Shelter Cluster East HUB

[3] Distribution of firewood in a truck can also be provided in stacked volume (by careful stacking or in wooden boxes).

households that use solid fuel as a secondary heating method cannot be uniformly addressed and requires further discussion. Some such households reported that they avoid using gas or electric heating due to unaffordable costs.

Recommendations:

- Maintain focus on solid fuel support in areas where viable alternatives are lacking.
- For **cash-based assistance**, reinforce the **restricted use** of solid fuel and adjust transfer value to reflect market prices.
- Continue to standardize **in-kind firewood** distributions, including the firewood species and delivery format. The Cluster will develop visual and written materials to explain the differences between stacked and loose volumes. It also encourages partners to ensure that market assessments include price comparisons by volume type.
- Include ignition material in support packages for briquette users or reflect this in the reference cost.
- Assess both the heating **infrastructure and affordability** during the targeting process.
- In cases where households are technically connected to gas or electricity but rely primarily on solid fuel due to unaffordable utility costs, consider providing **Winter Cash for Utilities** instead of firewood assistance. This approach may better align with actual usage patterns and support informed energy choices.
- The Shelter Cluster to facilitate consultations on commonly observed briquette quality issues and to collate recommended parameters (e.g., size range, packaging, compression indicators) based on partner feedback and local supplier practices. Partners are encouraged to conduct basic pre-distribution quality checks and share findings to improve collective understanding of acceptable quality standards.
- Accompany all cash-based interventions with clear communication on the purpose and intended use of each assistance type to prevent confusion among beneficiaries.

Firewood Use and Environmental Impact

Firewood remained the most widely used source of heating. Distribution in-kind was often well-implemented when partners adhered to the Shelter Cluster's technical guidelines.
Several implementing partners reported difficulties in securing hardwood species (e.g., oak, ash, and beech). Firewood with optimal moisture content was not always available on local markets.

Feedback received during monitoring visits, as well as during the PDM, shows that birch and poplar firewood burns quickly and does not provide heat.

In many cases, state forestry enterprises were unable to arrange delivery to remote villages, leaving beneficiaries (cash receivers) to organize their own transportation. Where unprocessed logs were delivered, some households struggled to find or afford labor to split the wood, a factor especially burdensome for older persons or female-headed households.

Some surveyed households reported typically needing at least 10 cubic meters of firewood. The intervention used pre-stacked crates containing the Cluster-recommended volume (7,5 stacked m^3) and high-density species. In previous years, however, beneficiaries often received loose (bulk) firewood in a truck, which differed in both presentation and wood type. The feedback is likely driven by beneficiaries' limited awareness of differences in packaging, measurement units, and the varying heat output of different wood species. Moreover, this discrepancy resulted in some households unknowingly receiving insufficient firewood for the winter season.

Environmental concerns emerged across both in-kind and cash modalities. While certified suppliers were typically engaged for in-kind distributions, some cash recipients sourced firewood

from informal or uncertified vendors, contributing to deforestation risks. In the absence of legal or subsidized access to sustainable wood, households in some areas resorted to self-cutting in forest strips or used alternative materials such as waste wood, which may pose environmental and health risks. Weak market monitoring further amplified these risks in cash-based responses.

Recommendations:

- Partners should ensure all firewood distributions, including cash-based ones, align with technical specifications for stacked volume and hardwood equivalency.
- Ensure local authorities confirm the feasibility of fuel delivery before committing, especially in hard-to-reach locations.
- Communication materials for beneficiaries receiving cash must clearly explain the differences in firewood volume (stacked vs. loose) and the energy yield of various species. Include guidance materials to help beneficiaries understand recommended volumes, suitable wood species, and market practices. Support informed purchasing through printed or digital flyers, hotlines, or briefings for field staff.
- Improve communication strategies by creating standardized IEC materials for Winter Season 2025-2026, including timelines, purposes of cash, firewood legality, and safety precautions.
- Cash-based programs should require procurement from certified or authorized vendors to prevent environmental harm.
- Firewood-related programming should include stronger monitoring frameworks to ensure appropriate use and sustainability.
- Pay attention to the feedback from the population on the quality of solid fuel.

Briquette Supply Chain Constraints

Several partners experienced delivery delays of briquettes, in some cases up to two months. Key challenges included limited production capacity, insufficient pre-season stockpiling, and issues with supplier performance. In one example, a supplier failed to meet its commitments, and switching to another supplier was complicated by prepayments and limited market availability.

Briquettes were also often unavailable in small or remote settlements, which reduced the effectiveness of cash-based assistance when beneficiaries lacked local market access. This made briquettes an unreliable option in some oblasts.

These challenges mirror the findings from **Lessons Learned 2023–2024**, which highlighted unreliable briquette supply chains and low competition among producers. However, unlike last year, several partners took proactive steps, such as early market mapping and supplier vetting, which proved effective in mitigating some risks. Nevertheless, broader structural issues persist, including stock shortages during periods of high demand and a lack of regional producers.

Briquettes made from agricultural biomass, such as sunflower husks, have demonstrated good heating performance and represent a viable alternative to traditional hardwoods. However, their use requires a clear understanding of supplier production capacity and advanced stockpiling to ensure timely delivery and consistent availability throughout the winter season.

Recommendations:

- Use briquettes only in areas where suppliers can ensure consistent production and pre-winter stockpiling is possible.
- Diversify fuel types and include contingency planning where briquette availability is uncertain.

- Clear packaging requirements for solid fuels, particularly briquettes, should be established to ensure proper storage and handling. Provisions for supplying materials for briquette ignition should be made, and, if necessary, additional cost assessments should be conducted to update recommendations accordingly.
- Consider the use of biomass-based fuels, such as sunflower husk briquettes, in regions where reliable local production and supply chains can be confirmed through early market assessments.

Delivery, Packaging, and Storage

In several regions, partners reported concerns regarding the physical quality of briquettes, including high fragility during transport, and inconsistent size or density. These factors led to material loss during loading and unloading and affected burn efficiency. Handling challenges were particularly evident in distributions requiring multiple offloads or where briquettes were not packed securely. For example, loose (in big bags) or in low-durability packaging.

Monitoring visits and partner-led PDM revealed that solid fuel was sometimes delivered without prior notice to beneficiaries, leading to complications in receiving and storing the assistance. This was particularly problematic during rainy conditions, when briquettes were left outside until someone could move them to an appropriate storage place. For households with limited mobility, such as older women or persons with disabilities, there is a need to explore options for doorstep delivery or additional handling support.

In several cases, hromadas were unable to fulfil their commitments to support door-to-door deliveries. The logistical capacity of local authorities was overestimated, leading humanitarian partners to arrange additional logistics solutions, such as crane trucks and smaller vehicles able to navigate narrow streets. These adjustments, while necessary, caused delays and increased operational costs.

Recommendations:

- Ensure briquettes are packed in durable, weather-resistant materials to minimize losses during loading, transit, and offloading.
- Ensure prior beneficiary notification: Delivery schedules should include advance notice to beneficiaries, allowing for proper preparation for receipt and storage, especially during adverse weather conditions. Include guidance on safe and weather-resilient storage practices as part of pre-delivery messaging.
- Assess local transport capacity in advance: During coordination, verify the actual logistical capacity of hromadas before assigning last-mile delivery responsibilities. Where gaps are identified, plan for contingency transport solutions.
- Before assigning delivery responsibilities to hromadas, need to conduct a joint review of their logistical assets, road access, and delivery reach, and similarly develop fallback delivery strategies in coordination with humanitarian partners in case of shortfalls (e.g., subcontracted transport providers). The Cluster to check options for linking /referrals to the Logistics Cluster.
- When selecting the packaging modality for firewood distributions, it is essential to ensure consistency (e.g., big bags or wooden pallets) across locations to avoid perceptions of inequality and minimize tension or stress within the affected communities.
- Integrate packaging quality, delivery punctuality, and storage conditions into PDM questionnaires. Use this data to inform future procurement decisions and hold suppliers accountable for recurring quality issues.

Gender Considerations: Elderly women (60+) were identified as particularly vulnerable to logistical barriers, such as receiving unannounced fuel deliveries or being unable to carry fuel indoors. This highlights the importance of gender-sensitive delivery planning and community support mechanisms.

Recommendation: When planning last-mile delivery support, consider both gender and age, and ensure that feedback mechanisms are designed to be inclusive and responsive to the needs of women.

6.3 Winter Heating Appliances

Compared to previous years, the demand for household heating appliances decreased, as these items are not consumables. However, there was still high demand from social institutions. Frequent power outages across Ukraine between July and December led to repeated requests for generators, power banks, and portable energy storage systems – especially for collective sites, transit centers, and invincibility points. These facilities provided essential heating during prolonged power outages. Local authorities continue to view decentralized heating solutions as a priority. Additionally, while oblast authorities highlighted a strong need for heating appliances in invincibility points, available resources were not sufficient to meet all submitted requests last winter season. Flexibility to repair existing non-functional systems remains important.

Recommendations:

- For the 2025–26 winterization season, the Shelter Cluster Winterization TWiG should consult with local authorities to assess the priority level of supporting heating appliances in social infrastructure. A realistic targeting strategy is necessary, given the reduced funding. Prioritization criteria may include the frequency of use, the absence of alternative heating points, and the severity of heating disruptions in affected communities.
- Refer requests for generators, power storage, and off-grid solutions to the Energy Coordination Group (ECG) for follow-up, prioritization, and potential cross-sectoral support. Support joint needs assessments and mapping of facility-level energy gaps, including for collective sites.
- In collaboration with CCCM, identify high-priority collective sites and transit centers lacking backup energy systems and refer to the ECG to mobilize targeted support.

6.4 NFI for Winter

Given the continued frequency of emergencies, including displacement and airstrikes, Winter NFIs were distributed in frontline and border areas where markets are non-functional or inaccessible. Households in these areas also required replenishment of essential items due to limited market access and the unavailability of suitable goods locally.

6.5 Winter Clothing

Eighty percent of the recipients who participated in the PDM from partners reported that they would prefer to receive this type of assistance in cash. This would avoid problems with sizes, as discrepancies often occurred. It would also be possible to choose shoes that are more comfortable for certain individuals to wear (for example, shoes with Velcro instead of laces), and to adapt the color to what the recipients typically wear, considering both age preferences and personal style.

While cash remains the preferred modality for regular programming due to greater flexibility, partners identified a continued need for contingency stocks of winter clothing, especially in emergency settings. In Kharkiv and Izium Transit Centers, newly evacuated individuals, often arriving with minimal belongings, required immediate support. The Shelter Cluster East Hub mobilized pre-positioned winter items, including coats, hats, and gloves, to support the response. Maintaining such contingency stocks remains essential, particularly for frontline or border areas where mandatory evacuation, including of children, may occur unexpectedly.

Gender Considerations: In the winter clothing section, beneficiaries highlighted gender- and age-specific needs related to sizing, ease of use (e.g., Velcro shoes for the elderly), and aesthetic preferences. This suggests the value of cash-based modalities to enhance personal agency and dignity, especially for women and girls.

Recommendations:

- Partners should maintain contingency stocks of essential winter clothing, particularly for children and other vulnerable groups, in regions at risk of sudden displacement. This enables a timely and appropriate response in volatile settings where market-based assistance may not be feasible.
- Ensure that both in-kind and cash modalities consider the diverse needs of women, girls, elderly persons, and people with disabilities.

6.6 Insulation of Substandard Houses

Post-distribution monitoring results highlight a continued gap in basic thermal efficiency among households. According to data collected from over 5,500 respondents, only **16%** reported that their house was insulated. In contrast, **84% reported** that no insulation measures had been implemented in their dwelling at the time of assessment. Very similar results were obtained by Cluster specialists during joint visits with partners to households in the Chernihiv region.

This reflects the broader context in Ukraine, where insulation of private homes has not been a widespread practice due to limited household resources.

Regarding window types, approximately **52%** (3,439 households) of respondents reported having metal-plastic energy-efficient windows, while around **47%** (3,083 households) had wooden-framed windows. This breakdown suggests that although energy-efficient windows are standard, a significant portion of homes still rely on lower-efficiency window types, decreasing the effectiveness of household heating during winter.

Standardized technical solutions – such as minimum insulation thickness, vapor barriers, and quality windows – demonstrated measurable impact:

- Heat loss through windows was reportedly reduced from 30–35% to 10–15% after installation of double-glazed units.
- The switch from polystyrene to mineral wool was positively assessed due to better fire resistance and environmental performance.
- Tempered glass was used in Collective Sites to minimize the risk of damage in areas where military strikes are frequent.

Thermal insulation significantly improved thermal comfort and reduced heating costs. Beneficiaries confirmed that they experienced improved comfort and reduced solid fuel consumption during the winter. At the same time, some beneficiaries expected full thermal modernization (including windows, attic, walls, and floors) but received only partial upgrades.

Recommendations:

- In-kind implementation, utilizing contractors, ensured quality control and technical oversight, while also reducing the burden on vulnerable households.
- Effective insulation programming requires precise targeting criteria, including:
  - proof of long-term residence.
  - legal use or ownership of the dwelling.
  - structural suitability of the house for insulation.
- When insulating an attic with mineral wool, include roof aerators in the design to prevent moisture accumulation within the roof assembly. Aerators ensure proper ventilation, reducing the risk of condensation that may compromise insulation performance and structural integrity.
- Clearly communicate the scope of support during beneficiary selection to manage expectations, distinguishing between full thermal upgrades and partial interventions.

7. Market Assessment

Effective winter energy support relies not only on needs assessments but also on a clear understanding of local fuel markets, including availability, accessibility, and price fluctuations. In 2024–2025, humanitarian partners operated across a wide range of oblasts, including remote and frontline areas where formal fuel markets were weak or non-existent. In some of these locations, the absence of nearby forestry enterprises or certified vendors significantly complicated supplier identification and increased transport costs. These challenges reinforced the importance of localized market assessments for both procurement planning and modality selection.

Key findings from last winter season:

- Prices for heating fuel are influenced by seasonal effects. They are more expensive during the colder months and cheaper in the summer. Correspondingly, respondents mentioned higher prices for solid fuel more frequently if they received cash assistance late in the year, indicating a lower purchasing power.
- Beyond the risks of purchasing illegal wood and the misuse of cash assistance, beneficiaries expressed concerns that local authorities may favor certain suppliers with inflated prices. Additionally, suppliers significantly increased prices after news of humanitarian cash assistance reached beneficiaries. In conversations with residents, it was also apparent that an informal market had developed, which was also sensitive to the injection of cash from humanitarian partners.
- Based on PDM analysis, the availability of solid fuel at the local market is as follows:
  Firewood – 52%. Briquettes – 20%. Pellets – 16%. Coal – 12%.
- Weak firewood market regulation; unlicensed suppliers.
- Price fluctuation and transport issues.
- During the monitoring visits, it was revealed that most of those who received money for the purchase of solid fuel purchased firewood illegally. This raises great concern about the detrimental impact on the environment.
- There were reported cases where unscrupulous suppliers offered beneficiaries falsified receipts for solid fuel purchases in exchange for a cash incentive. As a result, the assistance was partially or entirely misused, undermining the intended impact of the restricted cash modality.

Recommendations:

- Ensure communication with local authorities to obtain information on existing suppliers within the community, district, and region, to avoid transporting solid fuel from other regions, as this delays the delivery process. Whenever possible, ensure that solid fuel is purchased locally within the region.
- Using not a blacklist of suppliers, but the experience of organizations that managed to purchase and distribute solid fuel of good quality. For example, CORE, Caritas – firewood, R2P – briquettes, etc.
- In the case of restricted cash assistance for solid fuel, beneficiaries are required to confirm the intended use of funds by providing supporting documents, such as a receipt, proving the purchase of eligible items. This mechanism strengthens program accountability and ensures that assistance contributes directly to the targeted winter energy needs.

- In addition to conducting a market assessment, it is also necessary to assess the needs of the beneficiary to avoid a situation where the assistance provided is easier for the organization to implement, rather than the assistance that is really needed by the recipients.
- In the absence of the possibility of conducting a detailed market assessment, utilize secondary sources of information, such as REACH JMMI[4], AQLITY[5] studies, and IOM DTM surveys[6]. Additionally, organizations may consider including questions about the current state of the market in the KII.

Gender Considerations: There is no analysis of how women engage with fuel markets, including whether they face constraints in purchasing or transporting fuel. Future market assessments should evaluate gender-specific access barriers and safety risks associated with fuel acquisition.

[4] REACH Joint Market Monitoring Initiative
[5] AQLITY
[6] Winterization in Ukraine: housing, utilities, mobility, and needs. IOM DTM, 2024

8. Deduplication

During the 2024–2025 winter season, **two parallel deduplication systems** were used for cash assistance:

Building Blocks:

- *Primarily used by the Cash Working Group (CWG) to deduplicate multi-purpose cash (MPC)*
- Adjustments added for winter 2024 – 2025 to record and deduplicate Winter Energy and Winter Cash for Utilities.

RAIS+:

- *Developed by the Shelter Cluster in Ukraine to facilitate Cluster partners' item tracking, distributions, deduplication, and response monitoring.*
- Piloted for the first time during this winter, applicable to all winter-related activities and all modalities of assistance (except for Insulation of Substandard Houses activity, which is to be deduplicated at the address level using SIDAR).

Despite the rollout of these tools, no data integration or systematic information exchange occurred between the two systems. This fragmentation created significant challenges for real-time deduplication and coordination across partners.

Behavioral Trends Affecting Targeting and Deduplication

Several partners observed strategic movement patterns among beneficiaries:

- Individuals relocated from high-risk border zones (0–10 km) to neighboring hromadas (often >20 km away), where they registered as IDPs and became eligible for assistance.
- Some households received both government cash assistance (Resolution 993) and humanitarian winter cash assistance for the same need.
- After receiving aid, some individuals returned to their original homes, while others maintained their new registration to retain access to both IDP benefits and local resident entitlements.

These behaviors blurred the lines between displacement- and vulnerability-based targeting, creating risks of overlap across humanitarian and government support channels.

Limitations in Deduplication with State Subsidies

Deduplication between humanitarian cash assistance and state subsidy programs (e.g., utility subsidies) was not feasible in practice due to:

- Lack of data-sharing between systems
- Beneficiary uncertainty (e.g., applying for state subsidies without confirmation of receipt)
- Reliance on self-declaration to confirm non-receipt of government subsidies

Moreover, the state subsidy calculation methodology does not directly correspond with humanitarian assistance amounts. Subsidies are based on income, rather than actual energy needs or fuel prices, resulting in a mismatch between coverage and targeting.

Intra-Household Duplication Risks

Partners reported multiple members of the same household submitting applications to different actors for the same solid fuel need. To address this, some partners introduced stricter registration protocols, including collecting tax identification numbers from all adult household members, which improved accuracy and cross-checking across systems.

Cross-Modality Deduplication (Cash, In-Kind, Vouchers)

RAIS+ proved effective in deduplicating across multiple modalities once data uploads were initiated. However, in many cases, partner data was uploaded only after distributions had already begun,

limiting its use for pre-distribution verification. Sub-national Cluster coordinators played a key role in managing these challenges, facilitating manual deduplication discussions and ad hoc information sharing.

Recommendations:

- For the next winter season, this tool should continue to be used, enabling local authorities to access support and ensuring they are also equipped with deduplication capabilities at the hromada level.
  It is essential to involve more partners in RAIS+ from the outset, ensuring consistent data entry for various modalities of assistance (in-kind, cash, voucher), as well as more efficient deduplication.
- Ensuring clear and transparent communication with both communities and prospective beneficiaries of assistance about the type of assistance provided, its goals, and modality, to prevent the same individuals from applying for solid fuel assistance in different modalities from different organizations. Additionally, to minimize the number of refusals of the offered assistance as much as possible, in favor of other actors who enter the locations later.
- Integrate government winter assistance records into the RAIS+ platform where feasible.
- In areas with likely overlap with humanitarian and government assistance, encourage donors to conduct manual cross-checks with local authorities to verify whether beneficiaries have previously received assistance in another location or through government channels, including prior government aid.
- The timely sharing of planned activities by location (hromada and settlement levels), using coordination tools and tables, enabled Cluster coordinators to identify potential duplications early and redirect partners toward double-checking and harmonizing beneficiary lists to avoid duplication.
- Require **tax ID numbers for all adult household members** at the registration stage, particularly in oblasts with multiple actors. These should be logged in RAIS+ to mitigate the risk of intra-house duplication.
- Ensure that all organizations providing assistance promptly identify locations of presence at the sub-national level.
- Upon receiving beneficiary lists, promptly communicated which households were selected for assistance with local authorities and with the Cluster through the RAIS+ tool. The timely sharing of this information is essential to enable other actors operating in the same location to plan their interventions and avoid duplication.

Provide access to RAIS+ for the organization not only at the coordination level, but also at the field level, to expedite data entry into the system. The "Distribute" module in RAIS+ can be used to enter selected beneficiaries for deduplication at the registration stage, rather than at the post-distribution stage, especially if the period from registration to the provision of assistance is lengthy. Any beneficiaries that, for whatever reason, will no longer receive assistance can be removed from the “Distribute” list to avoid exclusion error with other organizations.

9. Post-Distribution Monitoring (PDM)

The introduction of a unified KoboToolbox-based PDM questionnaire in the 2023–2024 winter season enabled over 20 partners to contribute standardized post-distribution data. This collective effort allowed the Shelter/NFI Cluster to develop an interactive Dashboard, consolidating results across modalities and regions. The analysis of this harmonized dataset directly supported evidence-based decision-making, including the determination of a unified cash transfer value for solid fuel assistance in the upcoming winter season. The approach demonstrated the value of coordinated data collection, rapid sharing of results, and centralized data management in shaping timely and technically sound guidance.

At the same time, the partners' feedback indicates that the questionnaire is quite extensive. Since it is intended to serve as the core template for all partner PDM tools in the upcoming winter season, improvements and refinements are necessary.

The PDM framework does not currently analyze data by sex or age. It also lacks indicators assessing gender-based satisfaction, decision-making power over the use of aid, or barriers to access.

Recommendations:

- A dashboard for results might be built from the beginning of data collection to ensure the availability of collected data on time.
- Advance update of the questionnaire to give partners time to adjust their own forms and include relevant questions.
- Add the difference of mandatory questions based on the donors' provided funding for the project.
- Add a question about the type of solid fuel that was bought for cash.
- More hints for enumerators to avoid misunderstanding.
- Continue providing trainings for enumerators/meal team.
- Reduce duplication of household questions already asked at registration, as it may cause beneficiary mistrust (perceived risk of fraud) and unnecessarily burden data systems with repeated information. Collect only data that is truly useful for analysis, to minimize the burden on beneficiaries and reduce unnecessary data collection.
- Exploring barriers, bias in responses (e.g., overly high satisfaction scores and unwillingness to complain).
- Include questions on the use of coping strategies in the questionnaire.
- Revise PDM template to include sex- and age-disaggregated analysis, gender-sensitive satisfaction metrics, and questions about differential usage or effectiveness of assistance for women, men, and marginalized gender groups.
- Explore the possibility of utilizing RAIS+ winter 2025–2026 response data to create a representative sample for joint cluster post-distribution monitoring.
- Establish minimum performance thresholds for key winter response indicators in Post-Distribution Monitoring, particularly to assess the effective use of cash assistance for winter energy needs. Defining clear benchmarks, such as a minimum percentage of households meeting energy sufficiency, will support evidence-based decision-making and improve program accountability.