

CASE STUDY

UKRAINE 2023-2024 / CONFLICT

CONTEXT / SETTLEMENT

SHELTER TYPE

SUPPORT METHODS

CRISIS Russia's full-scale invasion of Ukraine in 2022

PEOPLE WITH SHELTER NEEDS 7.9 million people in 2024*

PEOPLE DISPLACED 4 million people internally displaced*

TOTAL HOUSING DAMAGE 1.4 million residential properties*

PROJECT LOCATIONS Mykolaiv and Kherson oblasts, southern Ukraine

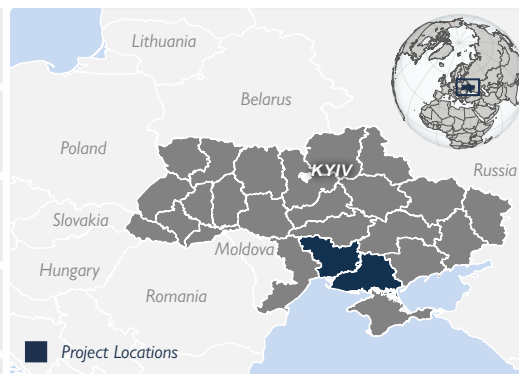
PEOPLE SUPPORTED BY THE PROJECT 1,350 HH / 3,000 individuals

PROJECT OUTPUTS 1,350 damaged houses repaired
(through cash and voucher support)

SHELTER SIZE 42 m² for apartments or private houses, on average.

DIRECT COST USD 2,500 per household on average

PROJECT COST USD 2,700 per household on average

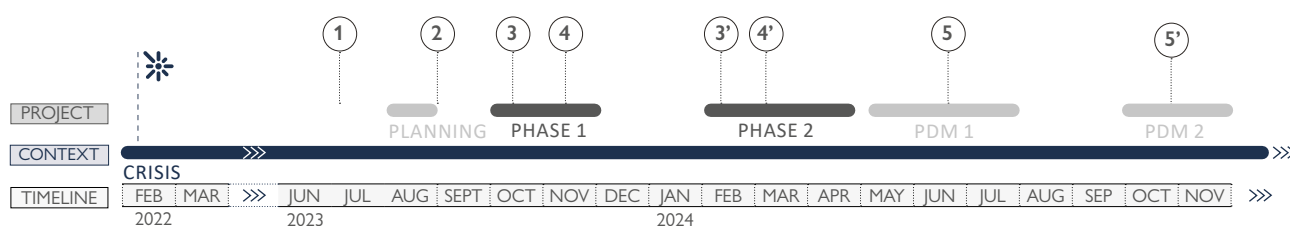


PROJECT SUMMARY

The project provided cash and voucher assistance to support conflict-affected households in Ukraine with light and medium shelter repairs, enabling them to restore damaged housing conditions. The intervention applied a market-based and digitally supported modality, allowing households to procure construction materials through local vendors and engage labour for repairs based on individual needs. Through flexible delivery mechanisms and monitoring systems, the project improved efficiency, strengthened users' choice, and supported local market actors and skilled workers in conflict-affected areas.

* Sources:

- Ukraine Humanitarian Needs and Response Plan 2024.
- Shelter and Non-Food Items Cluster Ukraine
- Rapid Damage and Needs Assessment (RDNA2).



Feb 2022: Russian invasion of Ukraine.

- Jun-Jul 2023:** Needs assessment conducted in coordination with local authorities and available secondary data sources.
- Aug-Sep 2023:** Technical assessment to determine the scope of repairs and prepare Bills of Quantities for eligible households.
- Oct 2023 and Feb 2024:** Beneficiary selection based on eligibility criteria, vulnerability and feasibility considerations (incl. accessibility to vendors). Communication channels established with beneficiaries.
- Oct-Nov 2023 and Feb-Mar 2024:** Distribution of vouchers and cash assistance, implemented through digital systems.
- May-Jul 2024 and Oct-Nov 2024:** Post-distribution monitoring conducted through household-level data collection and beneficiary feedback.



The project supported families living in their own or rented properties to conduct repairs through a digital voucher and cash modality.

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Dwellings with light and medium damage were selected. Typical damage included windows and doors, roofing, and exterior walls.

CONTEXT

Since the escalation of the war in February 2022, widespread attacks on civilian infrastructure and residential areas caused extensive housing damage, particularly in eastern and southern oblasts near the front line. The impact was severe: 1.4 million homes damaged or destroyed, and millions of people facing severe or extreme shelter needs. Repeated shelling, disruptions to energy and basic services, and prolonged displacement reduced households' ability to restore adequate living conditions without external support. Shelter needs were most acute in winter when damaged roofs, windows, and walls exposed families to cold and damp. Older persons, people with disabilities, women-headed households, and low-income families faced additional barriers to independently conducting repairs. For more background on the crisis, see A.22 in Shelter Projects 9th edition.

SITUATION BEFORE THE CRISIS

Before the escalation of the war in February 2022, Ukraine's housing and construction sectors were broadly functional. Households could generally access basic services, repair materials, and skilled labour through established private-sector networks, while national retail chains and local suppliers maintained strong coverage across both urban and rural areas, including in the southern oblasts. This pre-existing market capacity provided an important basis for considering a market-supported shelter repair response once conflict-related damage increased.

PROJECT DESIGN

The project aimed to meet the shelter repair needs of non-displaced persons, as well as IDPs and returnees, whose owner-occupied dwellings were partially damaged and no longer provided adequate safety and protection from the elements in war-affected oblasts. The intended outcome was to improve shelter conditions through household-led, market-supported repair solutions.



The vouchers could be redeemed either in person at selected stores, or online. They were restricted only to items that could be used for the intended repairs.

A mixed modality combined restricted vouchers for construction materials with cash assistance to cover labor for repairs. Typical works included replacing damaged windows and doors, repairing roofs, installing insulation, restoring external building elements, and limited rehabilitation of internal systems affected by conflict-related damage. The restricted vouchers enabled control over the use of assistance for construction materials while allowing choice among locally available options. The cash component acknowledged that many households lacked the physical capacity, skills, or available family labor to conduct repairs themselves. Cash provided was tailored to the Bill of Quantities (BoQ), scope of works, and damage level, not a flat lump sum, and covered labor costs only. Costs for construction waste handling and disposal were also included within cash component.

The voucher product list was restricted to predefined categories appropriate for emergency repair. These included, among others, roofing materials; windows and fittings (including installation); doors and fittings; insulation; dry building mixes; bricks/blocks; cement and civil construction materials; paints; electrical items; water supply and sanitary systems; heating systems and radiators; non-electronic and electronic tools; and delivery service.

Vendors' ability to stock and supply needed items was assessed in targeted locations, and they were informed in advance of the expected caseload, product groups, and geographic coverage. This allowed pre-ordering and positioning of materials, such as roofing sheets, in regional warehouses and designated stores to meet demand. Implementation proceeded only in areas where vendors could safely deliver, where beneficiaries could access shops if needed, and where banking, communications, and mobile networks remained operational. The response model was intentionally remote: after technical assessments and verification, voucher distribution, redemption tracking, beneficiary communications, and elements of monitoring were conducted primarily through digital tools and mobile channels, enabling assistance to large numbers of households with reduced field exposure.

PROJECT TEAM

The project team was compact and multidisciplinary. It included 2–4 engineers for technical assessments and verification, a project manager, a data manager, a supply chain assistant, and a call-center team to provide beneficiary support and manage voucher/cash delivery.

Assessments and BoQs were carried out by a partnering organization's engineers and a specialist engineering firm, with project engineers reviewing BoQs, damage categorization (light/medium), and eligibility, and confirming that repairs were feasible under the voucher value range. This also included validating proximity to vendor shops and cellular coverage, and confirming that the dwelling was the household's sole, currently occupied residence.

PROJECT IMPLEMENTATION

Vouchers were generated by the contracted vendor and delivered via SMS as unique barcode links, redeemable in physical stores or online. Activation and redemption required two-factor authentication through a one-time password, strengthening identity verification and minimizing misuse. Minor deviations were permitted when items remained within eligible categories, within the voucher value, and consistent with the objective of reinstating habitability. For example, purchasing a radiator in response to an urgent heating need instead of a plaster mixture for wall repairs indicated in the BoQ. Vendor delivery to the beneficiary's home was included, enabling door-to-door supply.

To ensure accountability and track utilization, beneficiaries completed an electronic self-reporting form accessed via SMS link, with mandatory upload of photos of purchased materials and receipts. Submission of this interim verification was linked to eligibility for the subsequent cash transfer for labor. Transfers were made to beneficiaries' bank accounts where available; in locations with limited banking access, alternate financial service providers were used.

Safeguards for the use of the unrestricted cash included tight targeting, limiting selection to households living in damaged properties with no alternative housing, and verification. Final self-assessments via an SMS form asked households to report on completed works; in-person spot checks by project staff were conducted on a random sample to verify completion and gather feedback. This combination improved the quality of works and encouraged full use of voucher-procured materials in repairs.



Where possible, project staff assisted beneficiaries in selecting the needed items, according to BoQs developed by third-party engineers.

TARGETING AND COORDINATION

Within selected locations, beneficiary selection focused on owner-occupied private housing requiring light or medium repairs. Eligibility was confirmed via self-applications to local authorities, supported by Housing, Land and Property documentation and technical assessments. Priority went to households still residing in damaged dwellings who needed repairs to restore safe and adequate living conditions.

Activities were coordinated through the Shelter Cluster's system for beneficiary tracking, de-duplication, and reporting. Local authorities regularly submitted data to the Cluster, which cross-checked for households that had already received financial assistance from government programs, helping ensure appropriate targeting and preventing duplication.



Common repairs included insulation and replacement of doors and windows. Beyond the vouchers, the project provided cash to cover for the labour part.



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The voucher plus cash modality enabled the project to reach a large number of households simultaneously, also allowing them to progress based on their own schedules and capacities.

TECHNICAL SOLUTIONS

Digital tools underpinned implementation and monitoring. Engineers used Kobo Toolbox for technical assessments and field verification, allowing near-real-time consolidation. The vouchers were SMS-based with a barcode link redeemable at participating vendors or for online purchases. The project also required an interim electronic self-verification before cash disbursement and a final self-verification after voucher expiry, reinforcing accountability and enabling remote progress tracking.

The project's voucher-based approach for shelter materials, supported by a defined methodology, was distinctive at the time of implementation and was later adapted by other programs. For example, within economic recovery interventions, small and medium-sized enterprises with damaged facilities were supported through similar vouchers to procure construction materials for rehabilitation and business continuity.



Monitoring visits were conducted with the use of digital tools. Due to weather-related and other constraints, post-assistance monitoring had to be extended.

OUTCOMES AND WIDER IMPACTS

Household-level assistance catalyzed wider local benefits. The voucher modality stimulated steady demand for construction materials, providing consistent business to vendors and reinforcing market functionality. The cash component created short-term livelihood opportunities for local skilled and unskilled workers. Involving local residents and small businesses in repair works generated additional income and supported community-level recovery dynamics. By enabling households to remain in repaired, safer homes, the intervention also reduced pressure on local authorities and social support systems by limiting reliance on collective centers or temporary accommodation.



As the project targeted households who were still living in their damaged dwellings, it reduced pressure on social support systems and promoted resilience.

STRENGTHS, WEAKNESSES AND LESSONS LEARNED

STRENGTHS

- ✓ **Needs-based flexibility through a combined modality.** By pairing restricted vouchers for materials with cash for labor, households could prioritize repairs according to specific damage, household composition, and local market availability, while the program maintained assurance that funds were directed to essential shelter items.
- ✓ **Operational reach via remote implementation.** Digitally enabled processes, assessments, voucher distribution, self-verifications, and support, allowed the project to operate in insecure, geographically dispersed areas while reducing exposure of field staff.
- ✓ **Scalable delivery across many households.** Unlike contractor-led repairs often implemented sequentially in batches, the approach enabled parallel support to large caseloads, reducing bottlenecks and allowing beneficiaries to progress according to their own priorities and capacities.
- ✓ **Cost-efficiency and use of local markets.** The intervention leveraged existing supply chains, reducing warehousing, transport, and procurement costs while sustaining local economic activity and preserving beneficiary choice and dignity.
- ✓ **Strong beneficiary participation and ownership.** Households selected materials, organized labor, and managed timelines, leading to context-appropriate solutions and better alignment with actual needs.
- ✓ **High operational coverage within conflict-affected areas.** The modality supported a significant number of households across southern Ukraine despite insecurity and damaged infrastructure.

WEAKNESSES

- ✗ **Management of voucher underspending.** Contractual arrangements with a large national vendor resulted in unspent balances from individual vouchers being aggregated into a single voucher to the organization, rather than reimbursed or deducted from final payments. While the consolidated balance could be used within program categories (e.g., to procure items for rapid distribution), the arrangement limited financial flexibility and required careful planning to ensure full utilization.
- ✗ **Dependence on vendor coverage and market access.** Implementation was constrained by vendors' geographic reach and delivery capacity; in some high-risk or rapidly deteriorating areas, vendors could not ensure safe delivery, limiting assistance to locations with severe needs.
- ✗ **Variable completion timelines and extended monitoring.** As households organized their own labor and schedules, repairs were sometimes delayed by weather, contractor availability, or household financial constraints, extending post-distribution monitoring and verification timelines.



FURTHER READING ON SHELTER PROJECTS

On the Ukraine crisis: [SP 9TH ED. / A.22-A.23 / UKRAINE](#)

On vouchers for repairs: [SP 13-14 / A.9 IRAQ / 2013; SP 17-18 / A.27 IRAQ / 2017-2018.](#)

On repairs in conflict areas: [SP 2009 / A.7 GEORGIA / 2008; SP 15-16 / A.30 SYRIAN ARAB REPUBLIC / 2015-2016.](#)

LESSONS LEARNED

- **Vendor network accessibility is critical.** Voucher-based repairs are most effective where functional vendor networks exist within reasonable distance (e.g., 30 km), particularly for the elderly and people with limited mobility or digital access. Early vendor engagement should include customer support and troubleshooting planning.
- **Monitoring must reflect phased repairs.** Many households complete works progressively due to labor availability, security dynamics, and resource constraints. Post-distribution monitoring should accommodate this reality, with verifications preferably 60–90 days after the cash transfer to capture actual outcomes.
- **Voucher validity periods should be flexible.** Longer validity (beyond three weeks) can help households navigate stock fluctuations, transport disruptions, and evolving security contexts, enabling procurement of appropriate materials without undue pressure.
- **Clarify eligible categories and repair planning.** Providing more detailed guidance to beneficiaries on eligible product categories and basic repair planning can reduce delays and improve effectiveness of assistance utilization.
- **Strengthen coordination for data quality and de-duplication.** Sustained use of national systems and regular exchanges with local authorities can improve beneficiary data quality, target verification, and support in hard-to-reach locations.
- **Anticipate contractual and accounting constraints with large vendors.** Where unspent voucher balances cannot be reimbursed or offset, pre-agree practical mechanisms (e.g., rapid procurement of pre-identified items in short supply) to ensure full, timely utilization aligned with program objectives.