

## Technical Guidance: Winterization

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## Acronyms

|                                                                                                  |                                           |
|--------------------------------------------------------------------------------------------------|-------------------------------------------|
| AFAD – The Disaster and Emergency Management Presidency (Afet ve Acil Durum Yönetimi Başkanlığı) | ESSN – Emergency Social Safety Net        |
| BoQ – Bill of Quantities                                                                         | GBV – Gender Based Violence               |
| DTM – Displacement Tracking Matrix                                                               | MPCA – Multi Purpose Cash Assistance      |
| HH – Household                                                                                   | TSS – Temporary Settlement Support Sector |
| EQ – Earthquake                                                                                  | TAC – Temporary Accommodation Centers     |
| ESMAT - Earthquake Solutions and Mobility Analysis Team                                          | WASH – Water Sanitation and Hygiene       |

## 1. Introduction

This guidance note addresses the shelter needs of earthquake-affected households, especially those that will remain in precarious temporary accommodation during the winter months. The Shelter sector recommends specific shelter interventions ([see section 6](#)) in order to protect the people living in emergency shelters, makeshift shelters, or containers. These interventions are aimed at supporting the household (HH) in addressing their winter needs through shelter, household items, and at the site level where applicable, before the peak winter months. All assistance should be based on needs assessments. As the temperatures in the EQ-affected provinces fall to sub-zero in winter, increasing the thermal comfort of shelters during winter months is considered a lifesaving activity and as such, a priority of the Shelter sector. The assumption is made that targeted HHs already received essential household items. However, due to multiple relocations, some families might have lost/left some of their items. Blanket distributions should be avoided, assistance should be based on vulnerability assessments. However, blanket distributions should be done at container cities and informal clusters to avoid tension between beneficiaries. If Shelter sector partners come across critical unmet needs of vulnerable households, the needs should be referred to other sectors through established referral mechanisms.

The winterization support proposed by the Shelter Sector Türkiye aims to improve livability during the winter months and in the process also increase the shelter resilience beyond the winter (where households are expected to remain in the temporary shelters for a longer period). Key elements of this approach are to provide households with dignity and meet basic human rights.

## 2. Climatic Conditions

The main EQ-affected hubs of Hatay, Kahramanmaraş, Adiyaman, Malatya, and Gaziantep face a severe winter. Locations at higher elevations have more intense winters with more days of snowfall. The elevation of the city centers in these hubs (except Hatay) ranges from 670m in Adiyaman to 955m in Malatya, with some rural areas located above 1500m. The average lowest temperature is 3°C in Kahramanmaraş and Adiyaman, 0°C in Malatya and Gaziantep, and 8°C in Hatay (Meteorological

Department of Türkiye). It is important to note that rural areas in higher elevations, where thousands of affected households are residing, generally face lower average temperatures.

Precipitation and wind speeds in the EQ-affected provinces are high (refer to Figure 2.1). While all 4 provinces face relatively infrequent snowfall during winter, snow is expected earlier in the year in rural areas in Adiyaman, Kahramanmaraş, with heavier snowfall occurring in the surrounding mountains in Malatya, which makes these areas a priority for early winterization interventions. Potential road closures in rural areas will hinder delivery of assistance during winter. It is recommended that the partners target these areas earlier. Shelter interventions should take into consideration specific shelter activities for higher elevations based on shelter typology.

Figure 2.1 – Province Climate Conditions<sup>1</sup>

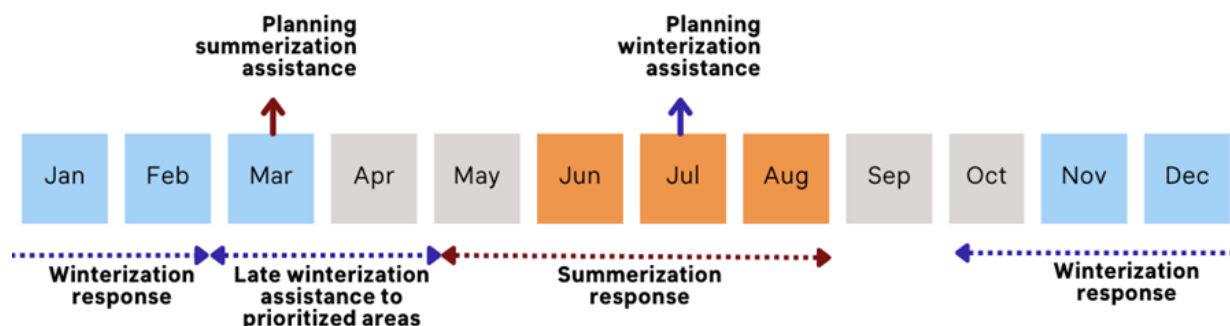
| EQ-affected Province | Elevation | Avg. Low Temp: Winter | Avg. Precipitation: Winter (Dec-Feb) | Avg. Wind Speeds |
|----------------------|-----------|-----------------------|--------------------------------------|------------------|
| Hatay                | 104 m     | 8°C                   | 300 mm                               | 28 km/hr         |
| Kahramanmaraş        | 568 m     | 3°C                   | 340 mm                               | 27 km/hr         |
| Adiyaman             | 670 m     | 3°C                   | 360 mm                               | 25 km/hr         |
| Malatya              | 955 m     | 0°C                   | 250 mm                               | 26 km/hr         |

### 3. Timelines

Winterization aid delivery should start in advance of the winter season based on the severity of households' needs (refer to section 4 on targeting). It is preferable for the sector members to start delivering support in October and November in order to provide assistance prior to the coldest months in Türkiye. Due to the climatic conditions, affected families at high elevations should be prioritized for earlier assistance that is more focused on thermal comfort (such as heaters, insulation, etc.).

Extending winter weather support into the months of March and April for households at higher elevations is crucial. When planning shelter interventions, it's important to account for the possibility of cold temperatures and increased rainfall or sporadic snowfall and hailfall during these months.

Figure 3.1 – Year-round Response Timeline



<sup>1</sup> Meteorological data taken from <https://weatherandclimate.com/turkey> and [globalwindatlas.info/en/area/Turkey](http://globalwindatlas.info/en/area/Turkey)

## 4. Targeting

The most vulnerable households affected by the earthquake should be targeted for assistance first. Under Shelter Sector this includes households that have been displaced to precarious temporary shelters as their primary accommodation and will continue to remain in such shelters through the winter, as well as those living in temporary shelters next to their low-damaged dwellings that could return to their homes after repairs. Targeting should take into consideration prioritization of HHs at higher elevations who will face a more intense and longer winter (with snow days up to April) as well as HHs in areas with high wind or rain.

Recommended components for targeting:

- Shelter vulnerability- based on current living conditions of the affected people  
Prioritized in order:
  - Makeshift tents
  - Tents and inadequate containers
  - AFAD standard containers
  - Lightly damaged dwellings
- Social vulnerability- based on the HHs ability to self-recover, including:
  - Large families in overcrowded shelters (less than 3.5 m<sup>2</sup> living space per person)<sup>2</sup>
  - Households with children from minority or marginalized groups
  - Households with one or more person with disabilities (mental and/or physical) and/or serious medical conditions
  - Elderly-headed households (60+ years old)
  - Households with more than three children (15 years old or younger)
  - Single-parent headed household with children under 15 years
  - Referrals from Protection sector:
    - Single women at risk of violence
    - GBV survivors

HHs with higher winter needs should be prioritized as winter approaches, especially those not already receiving other forms of assistance such as ESSN and MPCA. All assistance should be coordinated through the Shelter sector and with the government to ensure effective assistance and that the most vulnerable are being assisted. Shelter sector is receiving referrals from informal clusters of temporary shelters through TSS, authorities and shelter partners. Shelter partners should verify the referrals and address the needs in coordination with authorities and the Sector.

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<sup>2</sup> Taken from Sphere Handbook, shelter standards for minimum living space

## 5. Shelter Settlements and Typologies

EQ-affected HHs are inhabiting multiple types of shelters and settlements post-earthquake. The government of Türkiye has set up container cities to host displaced EQ-affected households. The container cities consist of “AFAD standard” containers (details below), are managed and serviced by local authorities and tend to have relatively adequate and functioning infrastructure. In addition, there are sites hosting refugees in the four provinces, with different typologies of containers. The sites hosting refugees in Malatya and Kahramanmaraş consist of AFAD standard containers, while those in Malatya and Hatay consist of foldable containers. The infrastructure in these sites is inadequate, especially in the sites consisting of foldable containers.

The response saw closures of formal and informal tented sites June onwards, with relocations to container sites. All formal sites have been closed, however some HHs still remain in tents in informal settlements. Indicative findings suggest that as of October, around 88,000 households<sup>3</sup> were still self-settled in informal sites in tents and containers (down from over 100,000 in August), 87% of these temporary shelters are scattered and 13% are in clusters of over ten shelters<sup>4</sup>.

### 1. AFAD standard containers

- Containers vary in size and design as they were procured by different suppliers. Most are 7m long by 3m wide and have a door and windows on the long side of the containers.
- Generally, Turkish nationals with severe to moderate earthquake damage are hosted in AFAD standard containers (over 108,000 households, approximately 432,000 people, as of 3<sup>rd</sup> week of December 2023). EQ-affected refugees in Malatya and Kahramanmaraş are also hosted in AFAD standard containers
- Containers meet AFAD standards with cooking and living areas, bathroom, and sleeping areas
- Although they are usually found in formal sites, according to ESMAT’s neighbourhood site mapping, 30% of HHs in informal settlements are in AFAD containers as of October (up from little to none in August)

### 2. Foldable and other inadequate containers

- Common Dimensions (length/width/height): Exterior 580x248x250 cm Interior 577x238x238 cm. (Others have smaller dimensions approx. area 14 m2)
- Households with severe to moderate damage in rural areas have been provided with a mix of AFAD standard containers and foldable/inadequate containers.
  - Foldable containers are smaller in size than the AFAD standard containers and sub-standard in quality – consisting of a weak chassis, without an internal partition, and without a defined cooking space and bathing space.
  - Many have gaps in walls/ceilings and have minimum insulation that provides extremely low thermal comfort.

<sup>3</sup> ESMAT round 3 – Neighborhood and site assessment August 2023

<sup>4</sup> TSS and DTM Neighborhood Site Mapping, Round 2, August 2023; TSS and DTM Neighbourhood Site Mapping, Round 3, October 2023. Refer to Shelter Sector meeting presentations for updated numbers.

- Some have two windows on opposite short faces of the container, and others have only one window with no cross ventilation.
- Consideration: Sometimes, foldable containers are not the primary accommodation of the households, primary accommodation should be checked to confirm safety and assess if they can be referred to a light repair project.
- EQ-affected refugees in Adiyaman and Hatay are hosted in sites consisting of foldable containers<sup>5</sup>
- The ESMAT neighborhood-level site mapping findings from October 2023 indicate that 75% of households in informal clusters are living in containers (approximately 66,000 HHs). These are a mix of foldable and other types of (inadequate) containers with different specifications and thus, differing upgrade needs

### **3. Standard and makeshift tents**

- ESMAT indicative findings suggest that as of October 2023, over 18,000 households were in tents; and an additional 3,500 households were in makeshift tents. This is a major decrease from the indicative findings in August, when 72,000 HHs were in tents and 9,000 were in makeshift.
- Considering the relocations that have been taking place from June onwards, the number of tents will continue to reduce, but some households are still expected to remain in tents and will require life-supporting winter assistance.
- The existing tents in the affected areas are of different types and many of them have been in use for over 10 months (which exceeded their average lifespan of 6 months).
- Tents should be considered as emergency shelters, usually without partitions and tented sites usually lack infrastructure and services.
- Some households staying in tents are facing evictions by landlords as they are residing on private lands. Meanwhile, those staying in public lands are being pressured by local authorities to relocate.

### **4. Lightly/low-damaged dwellings**

- Affected households with light damage may be living in their damaged dwelling, and/or other precarious arrangements such as overcrowded dwellings with relatives or makeshift tents.
- 48% of neighborhoods reported that some or most HHs with light damage were using their homes some of the time and tents/containers the rest of the time.
- While not specifically winterization assistance, repairing lightly damaged dwellings is a durable solution that can enable HHs- to move from precarious temporary shelters back to their permanent housing.

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<sup>5</sup> (example: Former Adiyaman TAC consisting of 1400 households in foldable containers, Uzumdali in Hatay is planned to accommodate 4000 HHs in foldable containers)

## 6. Types of Interventions

### 1. Upgrading containers

Shelter sector strongly recommends that all foldable containers must have the minimum upgrade of: tarpaulins, anchoring, and sealings gaps with silicon sealant

- Cover the shelter with tarpaulins to protect from weather elements.
  - Constructing pitched/sloping roof over containers will allow rain and snow to run off, decreasing roof loading and leaks.
  - See [Annex 1](#) for instructions on how to install container roofing.
  - Seal gaps with silicone sealant, especially if not covered by tarpaulin
- Anchor the shelter (containers) to protect from wind, and floods.
- Strengthen the shelter structure to withstand snow and wind loads.

### 2. Upgrading tents:

- Insulate the floor – raise the floor of the tent and/or provide insulated flooring
- Insulate the shelter walls and roof (for tents this insulation can be implemented only if the tent has waterproof walls and insulated from the ground)
- Seal gaps in walls and between the ground and tent
- Poor quality tents/shelters should be replaced with better shelter, generally containers.
  - Especially makeshift tents and tents with holes/damage.

### 3. Repair lightly damaged dwellings

- Replace damaged windows or doors
- Fix cracks in walls or ceilings
- Rebuilding of internal walls
- Restoring utilities including hygiene areas
- Roofing Repair
- Flooring
- Other minor and non-structural repairs
- Provide technical assistance for HH if the modality is cash-based.

### 4. Provide essential household items for winterization

- Winter clothes
- Essential sleeping items; mattresses, blankets, sleeping bags
- Heaters
- Fuel (cooking/heating)
- Solar lamps
- Provision of communal Snow Kit

### 5. Distribute Winterization Key Messages and Fire Safety Poster

- In addition, partners can coordinate with TSS and shelter hub coordinators to hold community sensitization workshops on fire safety.
- Partners are to consult their media department on how to disseminate these messages through different media outlets.

## 7. Cash Assistance for Winterization

The Shelter sector in collaboration with the Cash-based Interventions TWG strongly recommend cash assistance through vouchers or direct deposit as a modality for winter response as opposed to cash in hand which carries more risk. Cash provides flexibility to families in need, especially those with different availability of resources, such as those without electricity who need to purchase fuel for power/cooking. Access to markets in EQ-affected areas in peak winter periods needs to be taken into consideration, as extremely remote areas may require in-kind assistance if access to and transportation from markets is too difficult. Shelter Sector recommends the use of cash for rent, for essential household items, for light repairs of low-damaged dwellings, and for HH-led shelter upgrades. See recommended amounts below and refer to the Cash for Winterization document on the Shelter sector website for more details.

**7.1. Cash for Rent:** \$100 - \$200 per month cash support recommended to support vulnerable households to meet increased rental prices

- For displaced EQ-affected HHs who cannot afford rental prices. For extremely vulnerable HHs through referrals (in coordination with Protection sector)

**7.2. Cash for household items:** Two options of packages- \$370 for full package, \$150 for small package (see [section 9-d](#))

- Full Package – for EQ-affected HHs who have had to relocate and need essential HH items
- Small Package – for EQ-affected HH in precarious temporary accommodation that need essential HH items

**7.3. Cash for light repairs:** A range of \$900 - \$1500 is recommended for repair of low-damaged dwellings

- Assess house and design BoQ, including labor and transport, to define exact amounts needed to repair the dwellings.
- For HHs whose primary dwellings were lightly damaged by the EQ and for tenants living in low-damaged dwellings. Prioritize displaced households who are living in temporary shelters close to their low-damaged dwellings.

**7.4. Cash for temporary shelter upgrades:** Packages start at \$150 minimum, see [section 9](#) for upgrade packages of tents and containers

- More technical interventions, like anchoring, require direct implementation and are not recommended through cash.
- For EQ-affected HHs staying in temporary shelters such as containers, tents, or makeshift tents.

**7.5. Cash for fuel for heaters:** Assumed at \$100 for winter period

- For EQ-affected HHs with fuel-based heaters, generally in remote areas
- Intervention proposed, not operationalized, more details to follow

## 8. Environmental Considerations

1. Electric oil-based heaters should be provided after checking electricity availability, load capacity and safety at the site and shelter level in coordination with authorities and TSS. Fire safety messaging should be distributed along with the provision of any winterization assistance (see [Annex 2](#)).
2. Since cooking inside containers may not be safe, specific steps should be taken to ensure cooking does not take place near any face of the container (at least half a meter between walls and cooking area). It is advisable to have a separate cooking space to minimize risk of fire during cooking.
3. TSS is providing fire extinguishers at communal level. Shelter partners can coordinate with TSS on provision of communal fire extinguishers in sites/clusters and fire safety orientation where they are distributing heaters.
4. Care should be taken to ensure that insulation has a low flammability factor or that it is protected from exposure to flame to prevent the insulation catching fire.
5. Smoking and open flame should be avoided when applying glue, and during the application of insulation which has a high flammability factor, e.g., expanded polystyrene.
6. Partners should consider appropriate disposal of sealant tubes, glue canisters, and applicators. It is recommended that partners collect and dispose of these hazardous chemical canisters after use.
7. To prevent flooding, shelters should be raised off the ground (15-20 cm) using pallets or blocks. Shelter sector and partners to include guidance and/or shovels for households to dig household-level drains around shelters (connecting to site/main drainage systems) to divert water away from living spaces. Note that communal-level drainage is undertaken by TSS and can be coordinated with them.

## 9. Packages

### a. Overview

| Intervention       | Package          | Usage                                                                                                                              | Estimated Cost per Unit <sup>6</sup> |
|--------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Tents              |                  | Insulation, raising off the ground                                                                                                 | \$150                                |
| Containers         | Tarpaulin        | Water proofing                                                                                                                     | \$150                                |
|                    | Tarp + Anchoring | Water proofing and stabilization                                                                                                   | \$350                                |
|                    | Full Package     | Water proofing, stabilization, improving thermal comfort                                                                           | \$600                                |
| Essential HH Items | Small Package    | 4 thermal blankets, 2 mattresses, 2 tarpaulins, 1 solar lamp                                                                       | \$150                                |
|                    | Full Package     | 4 thermal blankets, 2 sleeping bags, 2 mattresses, 2 tarpaulins, 1 carpet, 2 solar lamps, winter clothes (cash modality preferred) | \$370                                |
| Snow Kit           |                  | Remove snow from roofs and paths around shelters and shelter roofs                                                                 | \$217                                |

### b. Tents

Although there have been relocations from tents to containers even in informal areas, people will continue to remain scattered in informal tented clusters. Indicative findings (October) showed that 21,000 HHs were still in standard and makeshift tents, however numbers have decreased since then. The majority of the tents are 6-8 months old. Tents are not likely to withstand snowfall and extreme wind. As far as possible, households should not remain in tents through the winter. Makeshift tents should be replaced with better quality tents. Below is a package to upgrade tents for winter.

| Item      | Description                                                                                                                                                                                  | Quantity | Estimated Unit Price               | Modality |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------------------------|----------|
| Tarpaulin | Tents and makeshift shelters have a limited lifespan (around one year). In order to increase the lifespan, it is recommended to add Tarpaulin on the roof and/or wherever the shelter is not | 2-3      | \$15-20<br>Depending on quantities | In-Kind  |

<sup>6</sup> All prices provided are an estimation, ensure doing market assessment before starting the procurement process

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                                                           |         |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------|---------|
|                   | <p>waterproof/windproof. This solution is much cheaper than a new tent. If the tent is heavily damaged, it is recommended to replace it with a new one.</p> <p><b>Dimensions: 6 m X 4 m</b></p> <p><b>Material:</b> Woven high-density polyethylene (HDPE) black fiber fabric laminated on both sides with low-density polyethylene (LDPE) coating.</p> <p><b>Reinforcement:</b> Reinforced rims by heat sealing on all sides.</p> <p><b>Resistance:</b> -20 C to 80 C with high UV resistance level</p> <p><b>Eyelets:</b> Provided with aluminum eyelets or equivalent on four sheet sides of the single sheets at 25 cm center to center, providing very strong fixation points.</p> <p><b>Weight:</b> 200 g/m<sup>2</sup> ±5%, total: 4800 g ±5%.</p> <p><b>Color:</b> White sun reflective on both sides, grey bands. Inner black fibers with good opacity.</p> |   | procured                                                                                                  |         |
| Ground insulation | <p>Raising the floor of the tent by using wooden pallets and covering it with flat boards. This reduces heat loss, protects the tent from water, reduces fuel consumption, and keeps the shelter warmer.</p> <p>Pallets:<br/> Dimensions: Can be customized to better fit the shelter (90x90x18 cm standard dimension)<br/> Material: Wood and nail – options in the market vary in terms of kind of wood dimensions and design.<br/> Minor ground levelling might be needed in some locations before installing the pallet.<br/> Flat Board options:<br/> 1- OBS board<br/> Dimensions: 122x244 cm - Thickness: 11mm – these require skilled labor to cut and adapt to the tent.<br/> 2- Natural rubber cork sheets:</p>                                                                                                                                            | 1 | \$75-\$100 depending on the size of the tent, type of the flat board qualities procured, and the location | In-Kind |
| Additional        | Additional insulation layers to the tent depending on the type of                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   | Aprox. \$50                                                                                               |         |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| insulation | <p>the tent. Tent insulation reduces fuel consumption and keeps the shelter warmer. However, to be effective, the insulation must be installed properly. This insulation should only be implemented if all the other families have a waterproof tent and insulated ground. The number of insulation sheets must be adapted to the shelter. If the sheets are not connected and joined firmly, or part of the shelter is not covered with insulation, the insulation becomes useless (thermal bridge). The required insulation material per tent (4x5m) is 50 m2 (it is preferred to allocate two rolls per tent, each one is 1m wide and 25 m long).</p> <p>Options available:</p> <ul style="list-style-type: none"> <li>- Roll Foil</li> <li>- Cork sheets</li> <li>- sandbags</li> <li>- carpet</li> <li>- PVC sheet</li> </ul> <p>Other required tools per tent:</p> <ul style="list-style-type: none"> <li>• Duct tape: JFBL Adhesive Tape Waterproof Adhesive Cloth Tape.</li> </ul> <p>Duct color: silver grey / Size: 50 mm X 10 m.</p> <ul style="list-style-type: none"> <li>• Nylon cable ties: Length: 300 mm, diameter: 102 mm, minimum tensile strength: 65 kg.</li> </ul> <p>Metal grommets: 9*4.5*5 mm (Outer diameter * Inner diameter * Height).</p> |  |  |  |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|

### c. Containers

While foldable containers are the most fragile among the existing containers, reports of needs for rehabilitation for AFAD specs containers were received in August for hundreds of containers. More will be needing rehabilitation in winter. Many containers have services inside (bathroom, kitchenette, etc...) pipes and infrastructure leading to the containers may also need insulation to prevent freezing. Container sites are continuing to expand with closures of tented clusters. See [Annex 1](#) for instructions on how to install container roofing.

| Part                                                                                                                         | Item                      | Package | Description                                 | Quantity | Cost        | Comment                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------|---------------------------------------------|----------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flooring <ul style="list-style-type: none"> <li>- Natural rubber cork sheet</li> <li>- XPS sheet</li> <li>- Tarps</li> </ul> | Natural rubber cork sheet | Full    | 10mm natural rubber cork 64cm x 94cm panels | 21       | \$61        |                                                                                                                                                                              |
|                                                                                                                              | Plywood sheet             | Full    |                                             |          | \$50 (est.) |                                                                                                                                                                                                                                                                 |
| Walls                                                                                                                        | Glue                      | Full    |                                             |          |             | Glue is likely toxic in confined spaces. It should not be used inside containers. (Screws may be a reasonable alternative to hold down flooring, also allowing a resident to recover the floor insulation and wood when the container is no longer being used.) |

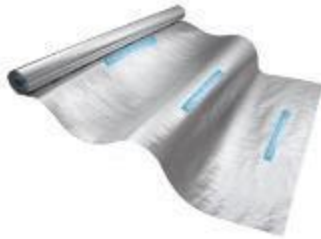
|      |                           |                  |                                                                                                                                                                                                                                    |                        |                                                     |                                                                                      |
|------|---------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------|
|      | Natural rubber cork sheet | Full             | 10mm natural rubber-cork 64cm x 94cm panels + fixing material (650 g/m <sup>2</sup> So, aprox. 42m <sup>2</sup> , 28kg=5kgX6ud).<br>Refer to <a href="#">Annex 1</a> for instillation                                              | 54                     | \$290                                               |                                                                                      |
| Roof | Tarpaulin                 | Full<br><br>Tarp | Flame retardant tarp<br><b>Dimensions:</b><br>Foldable container: 6x6m tarps or two 6x4 tarps (consider preventing water seepage between the 2 sheets, refer to <a href="#">Annex 1</a> )<br>Standard (AFAD) containers: 8x4m tarp | 2 6mx4m<br><br>1 8mx4m | 6x4:<br>\$15-<br>\$20<br><br>8x4:<br>\$90-<br>\$150 |   |
|      | Wood beam                 | Full<br><br>Tarp | 10 cm x 10 cm x width of container<br>Pressure treated wood rated for outdoor use                                                                                                                                                  | 1                      | \$20                                                |   |
|      | Drilling Screws           | Full<br>Tarp     | (1every20cmX2sides) 5.5mmx55mm self-drilling screws with washers                                                                                                                                                                   | 60                     | \$3                                                 |   |
|      | Rope                      | Full<br><br>Tarp | Hemp (or Polyester), diameter: 12 mmx30m                                                                                                                                                                                           | 30 m Roll              | \$20                                                |  |

|           |                                                   |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |           |              |                                                                                       |
|-----------|---------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------|---------------------------------------------------------------------------------------|
|           | Roof Repair Tape - Tape with Aluminum Foil (10Cm) | Tarp          | Thickness 1.5mm> Weight 1.7 kg/m2<br>Width 10cm> Length 10 m<br>Temperature Resistance (Minimum) 100 °C Flexibility in Cold -20 °C<br>Coating Top Al. Foil Covered Bottom Al. Foil<br>Features: Tape is a bitumen-based waterproofing tape with aluminum or colored aluminum coating on one side and removable foil on the other side. Made from SBS based bitumen, it is resistant to cold weather conditions and flexible. High waterproof feature and self-adhesion feature. Roll 10 cm wide and 10 m long | 10 m Roll | \$20         |    |
| Equipment | Rubber roller for Glue                            | Tarp          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1         | \$22         |    |
|           | Wrench                                            | Tarp          | 5.5mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1         | \$6          |   |
|           | Cutter Knife                                      | Tarp          | Heavy duty 18mm cutter knife set with 10 replacement blades                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1         | \$2          |  |
| Anchoring | TBD                                               | Tarp + Anchor | In piloting phase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           | \$100 (est.) |                                                                                       |

#### d. Essential Household Items

Targeted Populations: For vulnerable families that have not received winterization assistance in the past. The shelter sector recommends the full package defined below which costs \$370. However, a smaller package costing around \$150 of the bare essentials can also be distributed if the full package is outside the price range of a project.

| Item             | Package                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Quantity | Cost            | Comment |
|------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|---------|
| Thermal blankets | Full Package<br><br>Essential Package | <p>Single: 150 x 200 cm</p> <p><b>Material:</b> Minimum 60% acrylic and 40% cotton/polyester mixture.</p> <p><b>Thickness:</b> Minimum 5-5.5 mm.</p> <p><b>Color:</b> No black, red, or white. Assorted dark colors.</p> <p><b>Shrinkage:</b> Maximum 5% after 3 consecutive machine washes at 30°C and one flat drying.</p> <p><b>Single blanket</b></p> <p><b>Dimension:</b> 150 x 200 cm ±3%.</p> <p><b>Weight:</b> Minimum 835 g/m2. Minimum 2.5 kg. ± 3%.</p> <p><b>Other specifications:</b> No bad smell, not irritating to the skin, no dust. 4&lt;pH&lt;9, fire resistant. Fit for human use. Free from harmful VOC (Volatile Organic Components). Fire resistance to cigarettes (no ignition). Bias fabric and stitch yarns should be 100% polyester.</p> <p><b>Label:</b> Brand name and "Battaniye" stated on the label.</p> <p><b>Packaging:</b> Individually packed in a plastic bag (transparent).</p> <p><b>Quality control:</b></p> <ul style="list-style-type: none"> <li>• Measure the weight.</li> <li>• Measure the width, length and thickness.</li> <li>• Check that the material is uniform and free of defects.</li> </ul> | 4        | \$15x4 = \$60   |         |
| Sleeping Bag     | Full Package                          | <p>Synthetic, 0.7x1.9m, square, cold climate</p> <p>Sleeping bag, square angle shape, 2 sides opening</p> <p>Inner and outer lining: cotton/polyester mix, 100g/m<sup>2</sup> minimum. Filling: 100% polyester fibres</p> <p>Colours: Dark colour lining outside, and light colour inside - not white.</p> <p>Size: 0.7 x 1.9m, folded (= 1.4 x 1.9m open)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2        | \$25 x 2 = \$50 |         |

|                 |                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |   |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 |                                              | <p>Thickness: 30mm for one layer (when open)<br/> Shrinkage max: 2% after hand washing at 40°C.<br/> Tensile strength after washing: 2% loss maximum after 1 washing, 5% loss maximum after 5 washings<br/> Finish: Whipped seam with ribbon, 15 stitch/10cm minimum on 4 sides<br/> Closing: 2 strong zips of each 1.9m and 0.7m, plastic.<br/> Organoleptic test: No bad smell, not irritating to the skin, no dust. Fit for human use.<br/> Fire resistance: Resistance to cigarette test as per BS5852<br/> Marking on the package<br/> Sleeping bags, 0.7 x 1.9m, and number of pieces</p>                      |   |                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Winter clothing | Full Package                                 | <p>The organization providing clothing (in-kind, voucher or cash) should adapt the assistance to the number of people in the family.</p> <p><b>Assessments</b><br/> In line with the Sphere Standards, "All women, girls, men and boys have at least two full sets of clothing in the correct size that are appropriate to the culture, season and climate";</p> <p><b>Specifications:</b><br/> Please refer to ANNEX 3 – Winter Clothes.</p>                                                                                                                                                                        |   | <p>\$30 per child<br/> \$35 per adult<br/> (\$130 per family)</p> | <p><b>Cash or voucher</b> if access to the market is available<br/> Avoid in-kind if possible, Distribution modality, whenever possible, should allow for as much choice as possible, with the use of the cash and/or voucher modality as the preferred method. This is to avoid challenges with in-kind, such as quality, items not being adapted culturally, incorrect sizes, issues with colors and patterns, etc.</p> |
| Tarpaulin       | <p>Full Package</p> <p>Essential Package</p> | <p><b>Size:</b> 4 x 6 m<br/> <b>Material:</b> Woven high-density polyethylene (HDPE) black fibers fabric laminated on both sides with low density polyethylene (LDPE) coating.<br/> <b>Reinforcement:</b> Reinforced rims by heat sealing on all sides.<br/> <b>Resistance:</b> -20 C to 80 C.<br/> <b>Eyelets:</b> Provided with aluminum eyelets or equivalent on four sheet sides of the single sheets at 100 cm +/-5 cm centre to centre, providing very strong fixation points.<br/> <b>Weight:</b> 200 g/m<sup>2</sup> ±5%, total: 4800g ±5%.<br/> <b>Colour:</b> White sun reflective on both sides, grey</p> | 2 | <p>2 X \$16<br/> = \$32</p>                                       |                                                                                                                                                                                                                                                                                                                                      |

|             |                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |   |                            |                                                                                     |
|-------------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------|-------------------------------------------------------------------------------------|
|             |                                          | bands. Inner black fibers with good opacity.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |   |                            |  |
| Mattresses  | Full Package<br><br>Essential Package    | <p>Single 1.8 x 0.9 x 0.1 m</p> <p><b>Material:</b> Polyurethane closed cell hard grey foam, 100% synthetic yarns from virgin or recycled raw material. Synthetic sleeping mats that are made from recycled materials must not contain fillers, like calcium carbonate or any other.</p> <p><b>Dimension:</b> 1.8 x 0.9 x 0.1 m, Area 1.62 m<sup>2</sup></p> <p><b>Density:</b> Minimum 24 kg/m<sup>3</sup> (±2%)</p> <p><b>Weight:</b> Minimum 3.56 kg.</p> <p><b>Load deflection:</b> Minimum 16 kg.</p> <p><b>Cover:</b> Removable cover with zipper cotton or polyester/cotton canvas of 180 g/m<sup>2</sup> minimum.</p> <p>Size: 90 x 180 x 10 cm.</p>                                                                                                                                                   | 2 | 2 X \$20<br>=<br>\$40      |                                                                                     |
| Carpet      | Full Package                             | <p>Size: 200 x 300</p> <p><b>Materials:</b> Polipropilen (PP).</p> <p><b>Finish:</b> The two short sides to be secured with a first stitch folded hem of the carpet, plus one bias 40 mm binding tape of minimum 10 g/m with stitches through the fabric of the carpet, OR with a double folded stitched hem. Four sides trim finished.</p> <p><b>Weight:</b> Minimum 1050g/m<sup>2</sup> minimum, 12.6 kg total.</p> <p><b>Size:</b> 6 sqm minimum.</p> <p><b>Yarn thickness (Dtex):</b> Minimum 600 dtex.</p> <p><b>Filament number:</b> Minimum 72 trilobal.</p> <p><b>Strength (gr/dtex):</b> 1,8-3.</p> <p><b>Stitch number:</b> 25-30 pc/mt.</p> <p><b>Hight of the tie knots:</b> 9 mm.</p> <p><b>Sequence:</b> 1600 tie knots/dm<sup>2</sup>.</p> <p><b>Colour:</b> Assorted, with neutral design.</p> | 1 | \$22                       |                                                                                     |
| Solar Lamps | Full Package<br><br>Essential Package (1 | <p>Weatherproof and shockproof solar lamp with LEDs, and battery, all in one robust case. Plastic ABS / Transparent PC.</p> <p><b>Solar panel:</b> 6V, 0.7W. LED power: 4 LED 2W or 6 LED 3W.</p> <p><b>Battery:</b> 4V or 6V, capacity should maintain</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2 | \$15-<br>\$20x 2 =<br>\$40 |                                                                                     |

|              |       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |             |  |
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|              | lamp) | <p>minimum of 5 hours capacity after 3 years at full power. Rechargeable and replaceable battery, NiMH. RoHS-compliant</p> <p><b>Charge time:</b> Based on direct sunlight for 8 hours, the product has to work minimum 8 hours on full power, minimum 12 hours on half power. Match with AC charge (AC100-240V).</p> <p><b>Light output:</b> Minimum 4.Lux output on full power measured on the floor, from 2.20 m height. The testing has to be done at the start, and 3.5 hours after turning on the product.</p> <p><b>Operating functions:</b> 3 functions (Off, Half power and Full power)</p> <p><b>Fixation/Hanging:</b> Multiple options to hang, to fix or to secure the lamps. Built in anti-theft design preferred.</p> <p><b>Warranty/Life span:</b> Warranty: 1 year from purchase, Life Span: Minimum 3 years from the time of distribution (minimum 1000 charging cycles).</p> <p><b>Packaging/visibility:</b> Text on box shall be in Turkish or Arabic and English.</p> |  |             |  |
| Stove/Heater |       | <p>Electric oil-based heaters are the safest option for heating containers as they reduce fire risk and don't exhaust dangerous fumes. Shelter Sector recommends purchasing those with the lower average required wattage to mitigate concerns of insufficient wiring inside containers and lack of electrical supply in container sites. Fire safety messaging can be distributed with heaters (see <a href="#">Annex 2</a>)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | \$50 (est.) |  |

e. Snow Kit

| Item                     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Quantity | Unit Cost | Comment                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------|-------------------------------------------------------------------------------------|
| Snow shovel              | Galvanized Metal Snow Shovel<br>Shovel Width: 46 cm<br>Paddle Length: 32 cm<br>Shank diameter: 2.8cm<br>Handle material: wood<br>Handle Length: 130 cm<br>Length with handle: 170 cm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2        | \$15      |  |
| Snow brush w/ice scraper | Snow Brush and Ice Scraper with Telescopic Handle, with a length of 78-110cm, it should be suitable for cleaning snow brushes and ice scrapers from snow and ice. Robust structure resistant to all weather conditions thanks to the special telescopic lock system. Robust and stepless telescopic shaft for extra long reach (T-shape 66–98 cm, straight 78–110 cm) Its thick and soft special brush should provide effective cleaning in all kinds of snow conditions. Easy to use thanks to multifunctional rotating brush head High quality locking system with two-way adjustment function of the brush (T-shaped or straight) Allows cleaning of ice formed on the glass easily and without difficulty. 3-function scraper blade with G3 ice-breaking teeth. It must be designed | 1        | \$45      |  |

|           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |   |      |                                                                                       |
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|           | <p>and manufactured to be used in automobiles, home, office and warehouse windows.</p> <p>Ergonomic and special sponge-covered soft handle, it should provide comfortable and easy use without slipping from your hand.</p> <p>Easily remove ice with the ultra G3, 10cm wide scraper blade made of frost-resistant polycarbonate.</p> <p>The scraper blade must be 100% polycarbonate material and must be specially designed so that it will not break even on the hardest ice.</p> <p>Specially designed notch to clean wiper blades from ice and snow.</p> <p>Ergonomically formed 15 cm shaft.</p> <p>Flexible ice scraper structure</p> <p>15cm long handle &amp; flexible structure. 10cm wide ultra g3 scraping edge with ice teeth. With its 66cm length, comfortable use in narrow spaces</p> |   |      |                                                                                       |
| Rock salt | <p>Snow ice salt used to prevent icing in winter months</p> <p>Package: 25kg</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5 | \$14 |  |

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |   |      |                                                                                     |
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| Thermal gloves | <p>Double Latex Coated Superior Grip</p> <p>Double Acrylic Polyester Liner</p> <p>Thermal Waterproof gloves should be made with double coating, the first latex should be completely covered with the second coating palm sandy coating. The 2-layer coating must be 100% completely waterproof and windproof in wet and cold weather environments. It should keep your hand dry and warm in winter and provide warmth to -30H. Size L, left and right pair</p> <p>Dimensions: 26X12 cm"</p> | 3 | \$14 |  |
| Raincoat       | <p>Raincoat</p> <p>Hood type: Hidden hood</p> <p>Waterproof</p> <p>Fabric: Impertex with bag</p> <p>Color: Yellow</p> <p>Size: L</p>                                                                                                                                                                                                                                                                                                                                                         | 1 | \$14 |  |

|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |      |                                                                                     |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------|-------------------------------------------------------------------------------------|
| Headlamp | <p>Waterproof head flashlight<br/> Lumen: 3800/6000 Lumens<br/> Waterproofing design (Rainwater resistant)<br/> Aluminum alloy case<br/> Aluminum alloy reflector<br/> 3 Switch Modes: Bright Light / Dim Light / Flashing Mode<br/> Required Battery Model: 2x18650<br/> Rechargeable Battery<br/> Color: Black with Blue Band<br/> Head Light Weight: 175g<br/> Adjustable Focus, Zoomable LED<br/> Headlight</p> <p>Package Included<br/> 1x LED Headlight<br/> 2x 18650 Battery<br/> 1x DC Charger<br/> 1x USB charger<br/> 1x Car charger</p> | 1 | \$16 |  |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------|-------------------------------------------------------------------------------------|

## Annex 1 – Containers Upgrade Documents

Overlapping tarpaulin to cover containers: [Attaching 6X4 tarpaulin over containers | Shelter Sector](#)

Installing tarpaulin and insulation on containers: [Foldable Container Upgrade Option #1 - Protection from Rain and Insulation kit.pdf](#)

Installing tarpaulin and insulation on containers (Medair): [Foldable container Upgrade Option#2- Protection from rain and Insulation Technical Guidance](#)

Emergency repair kits for containers: [Container Emergency Repair Kit\\_0.xlsx](#)

## Annex 2 – Winterization Key Messages and Fire Safety Poster

See this page on our website: [Winterization and Fire Safety Messaging | Shelter Sector](#)

This page includes the “Winterization Messaging” and “Fire Safety Poster”. These documents should be handed out with all winterization distributions (especially with heaters and in temporary shelters). They are in English, Turkish, and Arabic (and the Winterization Messaging is in Kurdish and Farsi as well).