## INTER-AGENCY SHELTER SECTOR COORDINATION WORKING GROUP

# *Guidelines on Weatherproofing in Informal Settlements and Sub-Standard Buildings*

***Life-threatening vulnerabilities of households living in sub-standard conditions are reduced through the provision of emergency shelter assistance***

**This 2nd draft was developed by**
**a Temporary Technical Committee**
**chaired by Save the Children with contributions from**
**UNHCR, NRC, Medair, PU-AMI, Concern**

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Acronym

SSB Sub-Standard Building

NAK New Arrival Kit

MRK Medium Repair Kit

SSU Small Shelter Unit

IS Informal Settlement

# 1 Introduction

Lebanon was experiencing a shortage of affordable housing even prior to the Syrian Crisis due to a lack of national housing strategy[1]. The large influx of Syrian refugees[2] into Lebanon has resulted in further saturation of the regular rental market and rental inflation. A recent UNHCR Phone survey concluded that the general lack of adequate & safe shelter supply has pushed many of the poorest Syrian and Lebanese families into sub-standard shelters such as unfinished buildings and informal settlements all over Lebanon. This has resulted as well in many thousands of families to live in unhealthy, overcrowded and unsuitable accommodation where they are exposed to increased risks of exploitation, negative coping mechanism and forced eviction.[3] These trends are resulting in considerable increases in health, protection and economic vulnerabilities amongst the affected populations. This has been exacerbated by recent Government of Lebanon (GoL) communications requiring refugees to pledge not to work as a condition of renewing their residency documentation and new regulations that require refugee households to submit a housing pledge, signed by the owner, stating that they have accommodation.

Weatherproofing is a year-round activity mainly targeting Sub-Standard Buildings and Informal Settlements. However, each year, in the build up for the winter season, agencies undertake extensive planning, stocking, and implementation efforts to ensure shelters protection of refugees from the elements. Damages caused by harsh climate especially during winter period; (heavy rain, snow and cold temperature resulting in (collapsing of tents, leakages, flood etc.) require Shelter actors to have immediate and constant response capacity adapted to the needs.

Weatherproofing addresses multiple household-level needs faced by displaced and vulnerable households living in Informal Settlements and Sub-Standard Buildings. This activity can be implemented through in-kind distribution, vouchers, cash, or with contractors. The kits are assembled either by the refugees themselves, assisted in some cases for the most vulnerable by staff of NGOs,

1 *A Precarious Existence; The Shelter Situation of Refugees from Syria in Neighbouring Countries (NRC, June 2014)*

2 UNHCR data : 1,183,327 Syrian refugees registered end of May 2015

3 *Housing, Land and Property (HLP) Issues in Lebanon - Implications of the Syrian Refugee Crisis* (UN-Habitat & UNHCR, August 2014)

or contractors selected for this purpose. Assistance may also include labor support during installation, if required. Recommended standardized assistance packages include kits (a combination of plastic sheeting, timber pieces, plywood and ironmongery and tools to allow weatherproofing of roof, external openings, installation of light partitions and doors), and improvements to household-level access to water and sanitation conditions to allow the families in Informal Settlements or Sub-Standard Buildings to repair, reinforce their existing shelter.

The Weatherproofing of Informal Settlements and Sub-Standard Buildings represents a significant component of both the inter-agency Shelter Sector Strategy and the Lebanon Crisis Response Plan. By the end of 2014, the shelter sector had conducted Weatherproofing on approximately 108,180 HH, shelter capacity for around 540,900 individuals.

**The creativity and adaptability of agencies working in different social and economic contexts in Lebanon is a sectoral strength. The harmonisation of principles and minimum recommended kit is required to ensure a quality and harmonize service to beneficiaries. These guidelines form the main reference document for agencies intending to implement Weatherproofing intervention in Informal Settlements and Sub-Standard Buildings in accordance with the inter-agency Shelter Sector Strategy.**

This document is a revision of the original guidelines published in March 2014. The revision of this guideline was initiated following the request of the Shelter Working Group on 21st April 2015. The revision incorporates findings from the member agencies Post Distribution Monitoring, Lessons Learned and Evaluations and provides greater clarity on minimum recommended kit content list, terminology, targeting and selection, technical assessment, monitoring and potential outcomes/benefits for beneficiaries and host communities. The revision of the guideline includes the description of new kits focusing on insulation in order to provide better, safe and sound living condition especially during winter period.

## 2 Scope of these guidelines

This guideline outlines the agreed inter-agency approach for the Weatherproofing in Informal Settlements and Sub-Standard Buildings. It concerns the following interventions included within the Lebanon Crisis Response Plan (LCRP) dated 20-November-2014:

- 1.2.4 - # of individuals benefitted from weatherproofing of Informal Settlements
- 1.2.1 - # of individuals benefitted from weatherproofing of substandard buildings (unfinished houses, garages worksites etc.)
- 1.2.2 - # of individuals benefitted from weatherproofing and WASH upgrades (i.e. water storage, toilet, etc.) of Small Shelter Units (i.e. houses) and Sub-Standard Buildings (i.e. garages, shops, etc.)

This guideline specifically refers to the Weatherproofing in Informal Settlement and Sub-Standard Buildings, as per the inter-agency agreed definition (please refer to the Shelter Sector Strategy), Weatherproofing activities do not provide a rent-free or reduced rent period of occupancy.

Please note that **this document does not concern rehabilitation related activities neither emergency temporary shelter related activities.** This guideline does not concern:

- 1.1.2 – "Rehabilitation of unoccupied unfinished or abandoned houses"
- 1.2.5 – "Rehabilitation of occupied substandard buildings (unfinished houses, garages worksites etc.)"
- 1.1.5 – "Provision of Temporary Shelters within collective centers and/or premises of private houses."
- 1.1.6 – "Provision of shelter within formal tented settlements."

The inter-agency guidance for these activities is provided separately.

# 3 Terminology

## 3.1 Weatherproofing in Informal Settlements

The Shelter Sector Strategy defines this as: "Provision of emergency weatherproofing assistance for households living in Informal Settlement. This activity can be implemented through in-kind distribution of plastic sheets or kits, vouchers or cash. Assistance to the most vulnerable may also include labor support (NGO, contractors) during installation, if required. Recommended standardized assistance packages include a combination of plastic sheeting, different sizes of timber sections, plywood and iron monger and tools to allow weatherproofing of roof, wall, external openings (door – windows) and installation of light partitions. This activity doesn't include rental reduction or rent freeze period. Several terminologies of kits included, but not limited to are: Light Repair Kit (LRK), Medium Repair Kit (MRK), New Arrival Kit (NAK), Heavy Repair Kit fall under this activity and its related Activity Info & LCRP Indicator 1.2.4 - # of individuals benefitted from weatherproofing of Informal Settlements.

**The terminology of kits adopted by the shelter sector' partners related to this activity targeted Informal Settlement (IS) is referred as Quick Fix Kit (QFK) allocated by Light QFK, Medium QFK and Heavy QFK.**

## 3.2 Weather proofing of Sub-Standard Buildings[4]

The Shelter Sector Strategy defines this as: "Provision of emergency weatherproofing assistance for households living in Sub-Standard Buildings. This activity can be implemented through in-kind kits, vouchers or cash. Assistance to the most vulnerable may also include labor support (NGO, contractors) during installation, if required. Recommended standardized assistance packages include a combination of plastic sheeting, different sizes of timber sections, plywood and ironmonger and tools to allow weatherproofing of external openings (door – windows) and installation of light

4 Definition from the Shelter Working Group 2015 Shelter Strategy (version March 2015)

partitions. This activity doesn't include rental reduction or rent freeze period. Several terminologies of kits included, but not limited to are: Light Kits, Sealing-off kits vouchers fall under this activity and its related Activity Info & LCRP Indicator 1.2.1 - # of individuals benefitted from weatherproofing of substandard buildings (unfinished houses, garages worksites etc.)., **The terminology of kits adopted by the shelter sector' partners related to this activity targeting Sub-Standard Buildings is referred as Sealing Off Kit (SOK) allocated by Light SOK, Medium SOK and Heavy SOK.**

### 3.3 Weatherproofing and emergency water & sanitation upgrades In Substandard Buildings [5]

The Shelter Sector Strategy defines this as: "Provision of emergency weatherproofing (e.g. sealing off) assistance in addition to emergency water and sanitation upgrades (i.e. water storage, toilet, etc.). This activity can be implemented through in-kind distribution, vouchers or cash. Assistance may also include labor support (NGO, contractors) during installation, if required. Recommended standardized assistance packages include a combination of plastic sheeting, timber pieces, plywood and ironmongery and tools to allow weatherproofing of external openings (door – windows), installation of light partitions, and improvements to household-level access to water and sanitation conditions. This activity might include rental reduction or rent freeze period (please refer to section 9 of this guideline). Several terminologies of kits included, but not limited to are: Minor rehabilitation, Sealing off Kits (SOK), Vouchers fall under this activity and its related Activity Info & LCRP Indicator 1.2.2 - # of individuals benefitted from weatherproofing and WASH upgrades (i.e. water storage, toilet, etc.) of Sub-Standard Buildings (i.e. unfinished houses, garages, shops, etc.), **The terminology related to this activity targeting Sub-Standard Buildings is referred as Weatherproofing and WASH upgrades in SSB.**

**Activity Info indicators for WASH-related activities under 1.2.2. Weatherproofing and emergency water & sanitation upgrades In Substandard Buildings as part of this intervention are outlined as follows:**

**Output 1.1 Improvements in Water Supply**

**Output 1.3 - Provision of Water Storage**

**Output 2.1 - Provision of Improved Sanitation Facilities**

5 Definition from the Shelter Working Group 2015 Shelter Strategy (version March 2015)

The following table resumes the different kits used either in Informal Settlements or Sub-Standard Buildings.

| Segment | Category of Kit | Description of Kit | Kits used by agencies |
|---|---|---|---|
| Informal Settlement | Quick Fix Kit | Light QFK | Kit C (MEDAIR) |
| | | Medium QFK | MRK (UNHCR),Type A (SCI),Kit A (MEDAIR) |
| | | Heavy QFK | NAK *(UNHCR),Type B (SCI),* Kit E (MEDAIR) |
| | Quick Insulation kit | Modular QIK | |
| Sub-Standard Build. | Sealing Off Kit | Light SOK | Type D (SCI), Kit D (MEDAIR) |
| | | Medium SOK | Type C (SCI), Kit B (MEDAIR) |
| | | Heavy SOK | Kit S (MEDAIR) |
| | Flexy Insulation Kit | Modular FIK | |
| | Weatherproofing and WASH upgrades in SSB | Minor rehabilitation work (Shelter & WASH) | Conditional Cash Grants or through contractors NRC,PU-AMI, CISP |
| | | Light SOK & WASH<br>Medium SOK & WASH<br>Heavy SOK & WASH | |
| | | Voucher (Shelter & WASH) | SCI |

## 4 Principles

The activity of “Weatherproofing” specifically targets vulnerable households living in Informal Settlements and Sub-Standard buildings, with shelter assistance designed to provide rapid and immediate improvements to living conditions. The Weatherproofing approach is not limited to winterization response rather a collective approach to address a core shelter needs of a very large caseload and limits of application are subject to Winterization, Emergencies, Seasonable,

Contingency, substitute of Rehabilitation where applicable. It supports families to improve the following:

a. Improved, protection from cold and wet weather, increased security and privacy

b. Improved hygiene and access to safe water and sanitation facilities

c. Reducing Health and safety risks

d. Creating separate sleeping areas improving privacy and creating warmer living area

**Recommendation:**

There are instances where beneficiary households may legitimately receive two packages of assistance. E.g.:

1. Winter assistance in Informal Settlements and/or emergency assistance in Informal Settlements. The Government of Lebanon has stipulated restrictions on the types of shelter materials that can be provided by INGOs and NGOs to households living in Informal Settlements. All material assistance must be temporary in nature and therefore has a relatively limited life-span. Consequently, it is necessary to provide repeat assistance on an approximately annual basis, subject to needs until government regulations allow more sustainable and durable solutions.

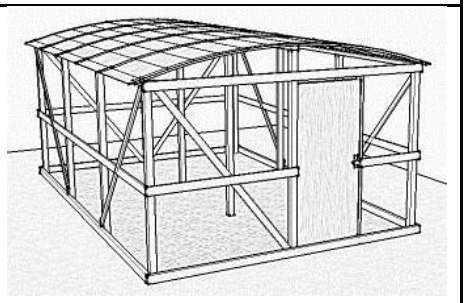
2. Also worth noting that Weatherproofing assistance in Sub-Standard buildings can be provided to beneficiaries who previously received SOK's as result of the material lifespan. Materials that are replenishing damaged or rotten with previously distributed kits should be removed.

3. Rehabilitation following emergency intervention. It is legitimate for the same household living in a Sub-Standard Building to receive Weather-proofing followed by WASH assistance or Rehabilitation within the same 12 months. The Weatherproofing intervention is intended to provide rapid life-saving assistance at scale and address immediate needs, particularly during the winter season. Rehabilitation is more targeted and typically requires a longer lead-time. Therefore, if a family is unlikely to receive Rehabilitation assistance in less than 3 months it is permitted that they receive Weather-proofing assistance in order to support them during the intervening period.

## 5 Objectives

Weatherproofing intervention in Informal Settlement should address the following:

| *OUTCOME / JUSTIFICATION* | *ACTIVITY* | *EXAMPLE* |
|---|---|---|
| a. Improved protection from elements (wind-rain-snow) in Informal Settlement | • Better waterproofing by installing new Plastic Sheeting for roof and vertical side wall |  |

| *OUTCOME / JUSTIFICATION* | *ACTIVITY* | *EXAMPLE* |
|---|---|---|
| b. Increased security and privacy in Informal Settlement | • New door made of plywood<br>• New partition wall made of plywood fixed on timber frame<br>• Installing new plastic sheeting for roof and vertical side walls |  |
| c. Supply of complete kit to build adequate shelter according standards | • Assembling stable turn-key wooden frame shelter with door and ceiling made of plywood<br>• Installing new plastic sheeting for roof and vertical side walls |  |
| d. Improved protection from cold and hot climate in Informal Settlement | • Installing thermal insulation rolls |  |
| e. Improve the Structural Integrity | • Installing different size of timber sections<br>• Reinforcement of the structure by adding some bracings<br>• Reinforcement of poles and purlins |  |
| f. Improved protection from cold and humidity in informal settlement | • Installing floor raising kit |  |

Weatherproofing intervention in Sub-Standard Buildings should address the following:

| ***OUTCOME / JUSTIFICATION*** | ***ACTIVITY*** | ***EXAMPLE*** |
|---|---|---|
| a. Improved, protection from cold and wet weather, increased security and privacy in Sub-Standard Buildings. | • Sealing-off doors<br>• Sealing-off windows |  |
| b. Improved hygiene and access to water and sanitation facilities | • Installing latrines<br>• Installing hand-washing facilities<br>• Installing bathing facilities<br>• Improved drainage<br>• Installing water storage |  |
| c. Removing Health and safety risks | • Adding balustrades or barriers to stairs, balconies etc. |  |
| d. Improved protection from cold and hot climate in Sub-Standard Buildings | • Installing thermal insulation rolls |  |
| e. Creating separate sleeping areas to improve privacy and to create a warmer living area (*Note: smaller rooms are easier to heat and keep warm during winter*) | • Installing lightweight partitions<br>• Installing internal doors |  |

## 6 MODALITY

The choices of modalities is based on past experience and lessons learnt of the agencies through the delivery of kits either by in-kind, voucher, conditional cash assistance or contractors; to achieve the same objectives. Unlike the Sub-Standard Buildings there are MoSA requirements for assistance in Informal Settlements. The following table provides a summary of the advantages and disadvantages of each modality:

| ***INTERVENTION / OUTPUT*** | ***MODALITY*** **(DIRECT COST $ USD)** | **INDICATIVE Direct and Support COST $ USD** | ***LIFE SPAN*** | ***MODALITY Contractor Advantages and disadvantages*** | ***MODALITY In-Kind Advantages and disadvantages*** | ***MODALITY Voucher Advantages and disadvantages*** | ***MODALITY Cash Advantages and disadvantages*** |
|---|---|---|---|---|---|---|---|
| **Weather-proofing** in Informal Settlements | In-kind, voucher, cash | $300 per HH | 6 to 12 months | **Advantages:** A contractor approach ensures all the materials are correctly installed quickly. Using a local contractor can facilitate access to areas which are difficult for agencies to access, e.g. Arsal. Technical monitoring is similar to other modalities if agencies are ensuring materials are correctly installed and used correctly. | **Advantages:** Contingency measure to respond rapidly to extreme circumstances; Quality of materials controlled through specifications. . | **Advantages:** Allows flexibility to deal with different conditions; Quality of materials controlled through specifications. | **Advantages:** Reduced support costs; Allows flexibility to deal with different conditions |
| | ($200 ave. kit) | $60 per indiv. | (i.e. "temporary") | | | | |
| **Weather-proofing** in Sub-standard buildings | In-kind, voucher, cash, | $350 per HH | 6 to 12 months | | | | |
| | ($250 ave. kit) | $70 per indiv | (i.e. "temporary") | **Disadvantages:** Without standing frameworks with contractors, tender processes can be lengthy and less quick to begin | **Disadvantages:** Limited Beneficiary empowerment | **Disadvantages** Limited expediency where there is inadequate access to suitable local suppliers. | **Disadvantages** Potentially higher monitoring costs associated with conditional cash grants. |
| **Weather-proofing and Emergency Water & Sanitation** in sub-standard buildings | In-kind, voucher, cash, contractor | $450 per HH | (i.e. "semi-permanent") | | | | |
| | ($350 ave. kit) | $90 per indiv | (i.e. "semi-permanent") | | | | |

## 7 Recommended Minimum Kit Content List

Annex 1 Recommended Minimum Kit Content List for Weatherproofing in Informal Settlements.

Annex 2 Recommended Minimum Kit Content List for Weatherproofing in Sub-Standard Buildings.

Annex 3 Recommended Minimum Kit Content List for Weatherproofing & WASH upgrades in Sub-Standard Buildings.

## 8 Principles of Selection

The principle objective of the Weatherproofing intervention is that "*Life-threatening vulnerabilities of households living in sub-standard conditions are reduced through the provision of emergency shelter assistance.* Therefore its activities targets households and individuals who are living in the worst conditions, who are most vulnerable to the effects of those conditions, and are the least able to change those conditions due to social or economic reasons.
The following bullet-points summarize the key principles influencing the Weatherproofing intervention strategy for beneficiary targeting and selection:

1. **Filter 1.** Weatherproofing assistance is provided to households living in Informal Settlements and Sub-Standard Buildings (unfinished houses, garages, workshops, etc.)
2. **Filter 2.** Weatherproofing assistance is provided to households living in **physically inadequate** conditions, as per the agreed inter-agency definition i.e. it is only provided to households living in vulnerable conditions.
3. **Filter 3** (Prioritization): Weatherproofing assistance is prioritized based on:
   a. Economic vulnerability, as scored by the Household Questionnaire OR
   b. Social Vulnerable Groups, I.e. if a household is not considered economically vulnerable but contains a Social Priority Vulnerability (e.g. separated child, child with chronic health issues, disability, etc.)

**DEFINITION OF "PHYSICALLY INADEQUATE":**

The inter-agency shelter sector defines "physically inadequate" or "physically sub-standard" as one or a combination of the following:

a. A lack of adequate privacy and dignity

b. A lack of protection from the climatic exposure

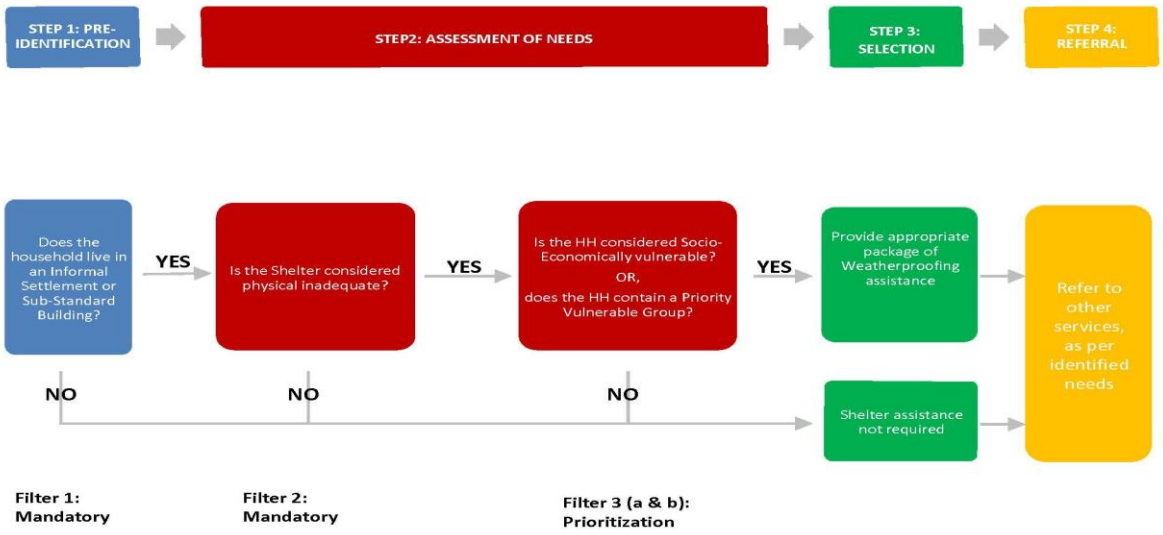
c. lack of adequate access to safe water, sanitation and/or unhygienic conditions

d. Inadequate connection to municipal infrastructure and services (e.g. electricity, water supply, waste-water collection, solid waste collection)

e. Expose the occupants to avoidable health and safety risks

f. Lack basic amenities like lighting and safe electrical points

**WEATHERPROOFING BENEFICIARY SELECTION FLOW-**



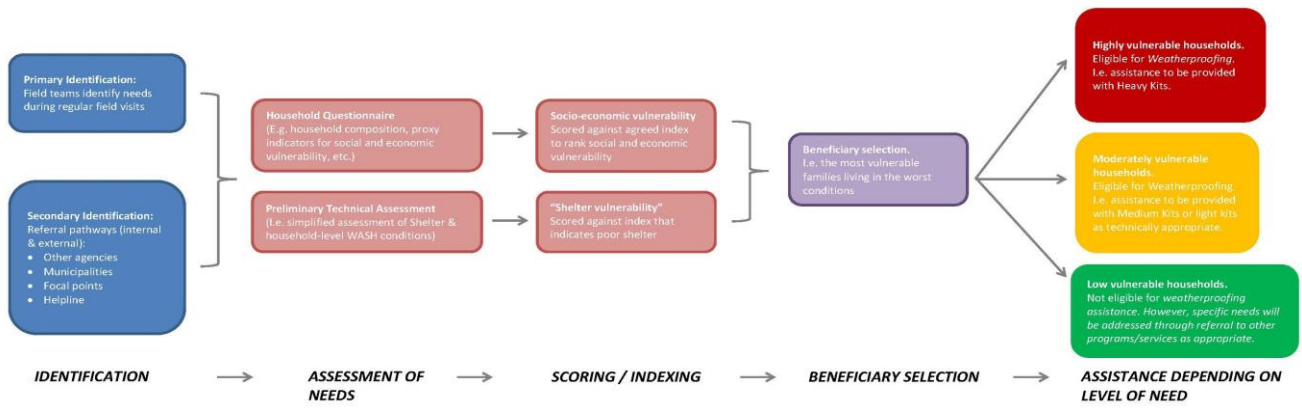

## ASSESSMENT OF NEEDS

Once potential beneficiary households have been identified they are subjected to a preliminary assessment. The assessments are designed to objectively quantify the relative needs of all possible beneficiary households. Most agencies assessments involve two major tools:

- Household Questionnaire (also referred to as "Social Assessment"). This collects information concerning the households' contact details, household composition. It is the primary tool for assessing socio-economic vulnerability. Beneficiaries are selected for assistance based on a combination of their living conditions and their socio-economic vulnerability, i.e. beneficiaries are selected if they are considered to be socio-economically vulnerable and/or they live in particularly inadequate conditions.

- Preliminary Technical Assessment. This is a rapid and approximate assessment of the households' living conditions. It provides a top-line summary overview of the household's Shelter vulnerability (i.e. living conditions), including household-level access to water, sanitation and the hygiene conditions. Please note that access to water and sanitation are key indicators of adequate living conditions, as defined by the Shelter Working Group, however the technical assessment is not intended or claiming to be a full WASH assessment.

**WEATHERPROOFING HOUSEHOLD-LEVEL BENEFICIARY SELECTION FLOW-CHART**



## 9 Promoting Security of Tenure

While the approaches in these guidelines don't include rent-reduction or rent-freeze periods, agencies are encouraged to reinforce the security of tenure for beneficiary households through, for example, written lease agreements between the owner and beneficiary for a specified duration of time amenable to both parties. Agencies have identified instances whereby owners increase rental prices because of the agency intervention, which can result in the beneficiary household having to leave the property, whether voluntarily or involuntarily as a result of not being able to meet the increased rental amount. Lease agreements should be used to document, in a transparent manner, the duration of the agreement, the amount of rent and utilities to be paid, and the rights and obligations of both parties, whether in Informal Tented Settlements (ITS) or Sub-Standard Buildings (SSBs). Written lease agreements, while encouraged, are not the only manner of providing tenure security. For example, should the tenant and owner have a verbal understanding, which is respected by both parties and rental prices will not increase, then the agency may consider having undertaken due diligence to ensure that the agency intervention will not result in the beneficiary household being evicted or pushed out of the accommodation. In addition, tenure security is also linked to the larger context and relationship between refugees and host community in any given area. Fostering good relations between owner and tenant can result in greater security of tenure and support any written or verbal agreement. These complementary activities can include obtaining community-level support (such as through municipalities or Mukhtars), supporting mediation of disputes, or encouraging regular dialogue between the two parties.

## 10 Building regulations and permissions

Agencies must undertake due diligence to ensure that they have the required permissions before undertaking any shelter intervention. To support this, the TTCs will be collaborating on developing Fact Sheets for shelter practitioners on the regulation and permissions environment for shelter interventions in Lebanon.

## 11 Monitoring & Evaluation

Regular monitoring of quality and implementation is conducted in order to track progress against the intended outputs, outcomes and overall objective. Agencies conduct follow-up visits to beneficiary households in order to monitor whether they have used their assistance and to provide any further technical guidance required.
Post Distribution Monitoring (PDM) is conducted on a sample of beneficiary households. It includes a quantitative and qualitative component and is designed to inform measurement of project outcome and future project design and implementation. The two components are:

A- End-line technical assessment. This is used to compare living conditions before and after the intervention. It provides quantitative information on the outcomes of the activity.

B- Beneficiary Satisfaction Questionnaire. This captures more qualitative information from the beneficiaries' perspective. It is used to measure the impact of the activity and to capture beneficiary feedback on how the activity was delivered and their unmet needs. To date, a number of changes to the program have occurred due to beneficiary feedback (e.g. the incorporation of labour costs, additional materials, etc.).

## 12 Improvement of Shelter durability in Informal Tented Settlements:

Weatherproofing Quick Fix Kits currently being distributed have been designed based on the following 5 parameters:

1. GoL approval. MOSA has recommended limits on the materials that agencies can distribute in the Informal Settlements. Agencies are strongly recommended to only distribute "temporary" materials.

2. Contextually Appropriate. Traditionally the shelters in the Informal Settlements were built using salvaged materials. The frames (skeleton) were typically made from old pallets and door frames. The cladding (covering) was typically made from old advertising hoardings. The materials that have been selected for the kits are intended to harmonise with these salvaged materials. These are all materials that beneficiaries are likely to be familiar with. The use of unfamiliar materials is unsustainable and will be difficult to repair and maintain.

3. Beneficiary feedback. The composition of the kits was modified following post distribution monitoring done by several agencies, the results concluded that 89% of the beneficiaries were satisfied or more than satisfied with the kits. However, a number of recommendations for improvements were made (e.g. the inclusion of thermal insulation).

4. Harmonisation. Harmonisation between agencies is critical to avoid creating disparities and friction between families and/or communities.

5. Cost Effectiveness. The Winterization intervention is part of a collective effort to address the core shelter needs of a very large caseload. The kits are intended to maximise benefit to cost.

UNHCR has proposed with the approval of MoSA the use of Thermal Insulation foil roll, an easy and cost-effective way to save energy and minimize heat loss through roof coating and wall lining whether in tents or Substandard buildings, UNHCR can provide thermal calculations for any interested partners, proposed specs: Structure Foil + 8mm/10mm thickness XPE/EPE foam + foil or Foil + 8mm/10mm thickness XPE/EPE foam + white PE film (the white PE film is to have a clear finished face not Alu one so that families can paint it after) Width : 1.20 m, Roll of 20m – 25m.

## *TENTS (Informal Settlements, isolated tents etc.)*

***PROPOSED "MINIMUM" QUICK FIX KITS***

| *REF. NO.* | *ITEM DESCRIPTION AND SPECIFICATION* | *INTENDED PURPOSE* | *SUPPLIER TYPE* | *UNIT* | *INDICATIVE UNIT COST [$ USD]* | *LIGHT QFK* | *MEDIUM QFK* | *QFK HEAVY* | *Insulation Kit* |
|---|---|---|---|---|---|---|---|---|---|
| 01 | **White Plastic Sheeting:**<br>● DIMENSIONS: 4m x 5m<br>● Standard Humanitarian Plastic Sheeting or "Vinyl" with a minimum weight of 380 GSM (Grams per Square Meter) | Cladding / cover / partitions | Plastic manufacturer | m2 | $0.75 | 60 | 60 | 120 | |
| 02 | **Clear Plastic Sheeting:**<br>● DIMENSIONS: 4m x 5m<br>● Transparent,<br>● 100 microns thickness, | Windows | Agricultural/Local supplier | m2 | $0.40 | 20 | 20 | 40 | |
| 03 | **Insulated Thermal Floor Mat:**<br>● IFRC specification or similar<br>● 4 x 3m<br>● Plastic weaving | Insulation | ? | pieces | $17.50 | - | - | - | |
| 04 | **Burlap cloth:**<br>● Jute or kenaf fabric or similar<br>● 350 - 450 g/m2<br>● 2 x 50m roll | Insulation | Agricultural/Local supplier | m2 | $1.20 | - | - | - | |
| 05 | **Timber:**<br>● DIMENSIONS: Depth:7.6cm x Width:7.6cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Primary (main) columns (e.g. corners and ridge) | Timber | pieces | $6.50 | - | - | 4 | |
| 06 | **Timber:**<br>● DIMENSIONS: Depth:5cm x Width:10cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Secondary columns / beams | Timber | pieces | $5.50 | - | 4 | 12 | |
| 07 | **Timber:**<br>● DIMENSIONS: Depth:2.4cm x Width:10cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Rafters | Timber | pieces | $3.00 | - | 10 | 18 | 11 |
| 08 | **Timber:**<br>● DIMENSIONS: Depth:5cm x Width:5cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Bracing / window frames | Timber | pieces | $3.00 | - | - | - | |
| 09 | **Timber:**<br>● DIMENSIONS: Depth:2.4cm x Width:5cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Bracing / window frames | Timber | pieces | $1.50 | - | - | - | |
| 10 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:**4mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions<br>● Please refer to attached detailed specification for timber | Doors / partitions | Timber | pieces | $7.50 | | 4 | 10 | |
| 11 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:**9mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions<br>● Please refer to attached detailed specification for timber | Doors / partitions | Timber | pieces | $13.00 | - | 1 | 1 | |
| 12 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:18**mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions | Doors / partitions | Timber | pieces | $20.00 | - | - | - | |
| 13 | **Concrete Nails:**<br>● DIMENSIONS: 4mm shank diameter x 50 mm long. with head,<br>● Galvanised mild steel. | Timber to concrete/block-work/brickwork connections | Hardware | Box (400g each, ac | $1.10 | - | - | - | 2 |
| 14 | **Roofing Nails:**<br>● DIMENSIONS: 4mm shank diameter x 60 mm long.<br>● Galvanised mild steel.<br>● Domed head.<br>● Rubber washers included | Plastic sheeting to timber connections | Hardware | kg | $4.00 | 1.0 | 1.0 | 1.5 | |
| 15 | **Timber nails:**<br>● DIMENSIONS: 4mm shank diameter x 50 and 75mm length. With bulge-head<br>● Galvanised mild steel. | Timber to timber connections | Hardware | kg | $1.25 | 1.0 | 1.0 | 1.0 | |
| 16 | **Timber Screws:**<br>● DIMENSIONS: 4mm shank diameter x 20mm long.<br>● Galvanised mild steel.<br>● Flat bulge-head.<br>● Compatible with 6mm wide blade screw-driver described below | Primary (main) timber to timber connections | Hardware | kg | $4.00 | 0.5 | 0.5 | 0.5 | |
| 17 | **Galvanised steel washers:**<br>● Sized to fit to screws | | | kg | $2.50 | 0.6 | 0.6 | 0.6 | |
| 18 | **Steel Angle Sections ("90 degree connector"):**<br>● DIMENSIONS: Minimum size = 10x10x2.5cm (i.e. each out-stand leg = 10cm long). Minimum plate thickness = 3mm.<br>● Galvanised mild steel.<br>● Folded into 90 degree angle.<br>● Pre-drilled with minimum 3 holes per out-stand leg. | Primary (main) timber to timber connections | Hardware | pieces | $0.25 | - | 20 | 20 | |
| 19 | **Metallic Wire Mesh:**<br>● DIMENSIONS: Preferred 2cm x 2cm mesh. Preferred minimum 1m width<br>● Aluminium. | Windows | Hardware | m2 | $1.00 | - | - | 4 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 20 | **Hinges:**<br>● DIMENSIONS: Minimum 15cm long x 3cm wide outstand arm. Minimum 7cm long x 3cm wide base-plate.<br>● Galvanised mild steel.<br>● T-shaped barrel hinge.<br>● Pre-drilled with minimum 4 no. of holes on each side of the hinge | Doors | Hardware | pieces | $0.50 | - | 3 | 3 | |
| 21 | **Hasp / latch:**<br>● DIMENSIONS: Minimum 10cm length x 3cm wide.<br>● Galvanised mild steel.<br>● Minimum 4 no. pre-drilled holes per component for fixing.<br>● To be compatible with padlock described below. | Doors | Hardware | pieces | $1.00 | - | 1 | 1 | |
| 22 | **Padlock:**<br>● DIMENSIONS: Body size minimum 4x4x2cm. Shackle minimum 6mm diameter.<br>● Galvanised mild steel.<br>● To be supplied with minimum 2 no. keys | Doors | Hardware | pieces | $1.50 | - | 1 | 1 | |
| 23 | **Carpentry Hammer:**<br>● DIMENSIONS: Minimum overall length = 35cm long.<br>● Solid metal head<br>● Wooden or rubber-coated handle.<br>● 1kg in weight | - | Hardware | pieces | $3.50 | 1 | 1 | 1 | 1 |
| 24 | **Wood Saw:**<br>● DIMENSIONS: Minimum overall length = 50cm long.<br>● Tapered / Trapezoid shaped saw, not a bow saw<br>● Wooden or rubber-coated handle. | - | Hardware | pieces | $6.50 | - | 1 | 1 | |
| 25 | **Screw-driver:**<br>● DIMENSIONS: 6mm wide blade-head, Shaft length:12.5cm, Minimum overall length:22cm.<br>● Wooden or rubber-coated handle<br>● Fully insulated. Small mains tested:200-250 volts AC<br>● Must fit wood-screws listed above | - | Hardware | pieces | $1.00 | - | 1 | 1 | |
| 26 | **Tape Measure:**<br>● DIMENSIONS: Minimum measurement length:5m. Preferred measurement length:10m<br>● Circular/disc-shaped.<br>● Preferred metal case<br>● Hand-coil (not sprung). | - | Hardware | pieces | $3.00 | - | 1 | 1 | |
| 27 | **Cutter (also called "Stanley Knife" or "cutting knife"):**<br>● Plastic or rubber handle<br>● 2 pcs spare blades<br>● Retractable blade<br>● 20cm long (blade and body) | - | Hardware | pieces | $1.50 | - | 1 | 1 | 1 |
| 28 | **Glue**<br>● Liquid Wood-glue<br>● 300g | | Hardware | pieces | $3.00 | - | - | - | |
| 29 | **Insulation Adhesive tape** | Polyethylene Reinforced Insulation Tape/Aluminium Foiled tape | Hardware | roll | $5.00 | - | - | - | 2 |
| 30 | **Expanding foam spray:**<br>● 750g | | Hardware | Can | $4.00 | - | - | - | |
| 31 | **Rope / woven strapping / rubber ties** | Plastic sheeting to timber connections | Agricultural/Local supplier | m | $0.15 | 50 | 50 | 50 | |
| 32 | **Plastic storage box:**<br>● DIMENSIONS: Height:28cm x Width:32cm x Length:46cm.<br>● Clear plastic box with wheels and a locking lid. | - | Hardware | pieces | $5.00 | 1 | 1 | 1 | |
| 33 | **Varnish or Wood Waterproofing sealant product** | Waterproof protection for Wood Transparent or colored (To be applied on the plywood roofing) | Hardware | Box of 4 kg | $20.00 | | | | |
| | **Flue Pipe** | Galvanised mild steel or stainless steel tube. Minimum 15cm diameter x 50cm length. Preferably with minimum 50mm width out-stand flange | Hardware | pieces | $5.00 | | | | |
| | **Door Bolt** | Galvanised Mild Steel - Minimum 10cm long. Bolt minimum 8mm diameter,Pre-drilled with minimum 2 No. holes on each side of bolt. | Hardware | pieces | $5.00 | | 1 | 1 | |
| 34 | **Insulation roll** | Foil + XPE/EPE foam + Foil or white PE film - 8mm of thickness, 1.20m of width | Hardware | Roll | $96.00 | | | | 1 |
| 35 | **Documentation:**<br>● Drawing / tip sheet<br>● Content list<br>● Other… | | | pieces | $0.00 | 1 | 1 | 1 | 1 |
| 36 | **Stapples**<br>**-Flat wire**<br>**- Galvanised stell**<br>**- U shape**<br>**- 12mm leg length** | | Hardware | Box of 1000 | $5.00 | | | | 1 |
| 37 | **Stappler**<br>**Heavy duty staples gun (6 to 14 mm)** | | Hardware | pieces | $15.00 | | | | 1 |
| - | **SUB-TOTAL MATERIAL COST =** | - | - | Kit | - | *$78* | *$199* | *$417* | *$166* |

## *SUB-STANDARD BUILDINGS Weatherproofing & WASH upgrades (Unfinished Houses, Converted Garages, Collective Centres etc.)*

| | | | | | | *PROPOSED "MINIMUM" SEALING OFF KITS & WASH* | | | |
|---|---|---|---|---|---|---|---|---|---|
| ***REF. NO.*** | ***ITEM DESCRIPTION AND SPECIFICATION*** | ***INTENDED PURPOSE*** | ***SUPPLIER TYPE*** | ***UNIT*** | ***INDICATIVE UNIT COST [$ USD]*** | ***LIGHT SOK*** | ***MEDIUM SOK*** | ***HEAVY SOK*** | ***Insulation Kit*** |
| 01 | **White Plastic Sheeting:**<br>● DIMENSIONS: 4m x 5m<br>● Standard Humanitarian Plastic Sheeting or "Vinyl" with a minimum weight of 380 GSM (Grams per Square Meter) | Cladding / cover / partitions | Plastic manufacturer | m2 | $0.75 | 60 | 60 | 80 | |
| 02 | **Clear Plastic Sheeting:**<br>● DIMENSIONS: 4m x 5m<br>● Transparent,<br>● 100 microns thickness, | Windows | Agricultural/Local supplier | m2 | $0.40 | 20 | 20 | 40 | |
| 03 | **Insulated Thermal Floor Mat:**<br>● IFRC specification or similar<br>● 4 x 3m<br>● Plastic weaving | Insulation | ? | pieces | $17.50 | - | - | - | |
| 04 | **Burlap cloth:**<br>● Jute or kenaf fabric or similar<br>● 350 - 450 g/m2<br>● 2 x 50m roll | Insulation | Agricultural/Local supplier | m2 | $1.20 | - | - | - | |
| 05 | **Timber:**<br>● DIMENSIONS: Depth:7.6cm x Width:7.6cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Primary (main) columns (e.g. corners and ridge) | Timber | pieces | $6.50 | - | - | - | |
| 06 | **Timber:**<br>● DIMENSIONS: Depth:5cm x Width:10cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Secondary columns / beams | Timber | pieces | $5.50 | 2 | 4 | 4 | |
| 07 | **Timber:**<br>● DIMENSIONS: Depth:2.4cm x Width:10cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Rafters | Timber | pieces | $3.00 | 2 | 6 | 8 | 11 |
| 08 | **Timber:**<br>● DIMENSIONS: Depth:5cm x Width:5cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Bracing / window frames | Timber | pieces | $3.00 | - | - | - | |
| 09 | **Timber:**<br>● DIMENSIONS: Depth:2.4cm x Width:5cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Bracing / window frames | Timber | pieces | $1.50 | - | - | - | |
| 10 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:**4mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions<br>● Please refer to attached detailed specification for timber | Doors / partitions | Timber | pieces | $7.50 | - | 6 | 10 | |
| 11 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:**9mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions<br>● Please refer to attached detailed specification for timber | Doors / partitions | Timber | pieces | $13.00 | - | - | 2 | |
| 12 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:18**mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions | Doors / partitions | Timber | pieces | $20.00 | 1 | 1 | 1 | |
| 13 | **Concrete Nails:**<br>● DIMENSIONS: 4mm shank diameter x 50 mm long. with head,<br>● Galvanised mild steel. | Timber to concrete/block-work/brickwork connections | Hardware | Box (400g each, ac | $1.10 | - | 1.0 | 1.0 | 2.0 |
| 14 | **Roofing Nails:**<br>● DIMENSIONS: 4mm shank diameter x 60 mm long.<br>● Galvanised mild steel.<br>● Domed head.<br>● Rubber washers included | Plastic sheeting to timber connections | Hardware | kg | $4.00 | - | - | - | |
| 15 | **Timber nails:**<br>● DIMENSIONS: 4mm shank diameter x 50 and 75mm length. With bulge-head<br>● Galvanised mild steel. | Timber to timber connections | Hardware | kg | $1.25 | 1.0 | 1.0 | 2.0 | |
| 16 | **Timber Screws:**<br>● DIMENSIONS: 4mm shank diameter x 20mm long.<br>● Galvanised mild steel.<br>● Flat bulge-head.<br>● Compatible with 6mm wide blade screw-driver described below | Primary (main) timber to timber connections | Hardware | kg | $4.00 | 0.5 | 0.5 | 0.5 | |
| 17 | **Galvanised steel washers:**<br>● Sized to fit to screws | | | kg | $2.50 | - | - | - | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 18 | **Steel Angle Sections ("90 degree connector"):**<br>● DIMENSIONS: Minimum size = 10x10x2.5cm (i.e. each out-stand leg = 10cm long). Minimum plate thickness = 3mm.<br>● Galvanised mild steel.<br>● Folded into 90 degree angle.<br>● Pre-drilled with minimum 3 holes per out-stand leg. | Primary (main) timber to timber connections | Hardware | pieces | $0.25 | 4 | 10 | 20 | |
| 19 | **Metallic Wire Mesh:**<br>● DIMENSIONS: Preferred 2cm x 2cm mesh. Preferred minimum 1m width<br>● Aluminium. | Windows | Hardware | m2 | $1.00 | - | - | 2 | |
| 20 | **Hinges:**<br>● DIMENSIONS: Minimum 15cm long x 3cm wide outstand arm. Minimum 7cm long x 3cm wide base-plate.<br>● Galvanised mild steel.<br>● T-shaped barrel hinge.<br>● Pre-drilled with minimum 4 no. of holes on each side of the hinge | Doors | Hardware | pieces | $0.50 | 6 | 6 | 6 | |
| 21 | **Hasp / latch:**<br>● DIMENSIONS: Minimum 10cm length x 3cm wide.<br>● Galvanised mild steel.<br>● Minimum 4 no. pre-drilled holes per component for fixing.<br>● To be compatible with padlock described below. | Doors | Hardware | pieces | $1.00 | 1 | 1 | 1 | |
| 22 | **Padlock:**<br>● DIMENSIONS: Body size minimum 4x4x2cm. Shackle minimum 6mm diameter.<br>● Galvanised mild steel.<br>● To be supplied with minimum 2 no. keys | Doors | Hardware | pieces | $1.50 | 1 | 1 | 1 | |
| 23 | **Carpentry Hammer:**<br>● DIMENSIONS: Minimum overall length = 35cm long.<br>● Solid metal head<br>● Wooden or rubber-coated handle.<br>● 1kg in weight | - | Hardware | pieces | $3.50 | - | 1 | 1 | 1 |
| 24 | **Wood Saw:**<br>● DIMENSIONS: Minimum overall length = 50cm long.<br>● Tapered / Trapezoid shaped saw, not a bow saw<br>● Wooden or rubber-coated handle. | - | Hardware | pieces | $6.50 | - | 1 | 1 | |
| 25 | **Screw-driver:**<br>● DIMENSIONS: 6mm wide blade-head, Shaft length:12.5cm, Minimum overall length:22cm.<br>● Wooden or rubber-coated handle<br>● Fully insulated. Small mains tested:200-250 volts AC<br>● Must fit wood-screws listed above | - | Hardware | pieces | $1.00 | - | 1 | 1 | |
| 26 | **Tape Measure:**<br>● DIMENSIONS: Minimum measurement length:5m. Preferred measurement length:10m<br>● Circular/disc-shaped.<br>● Preferred metal case<br>● Hand-coil (not sprung). | - | Hardware | pieces | $3.00 | - | 1 | 1 | |
| 27 | **Cutter (also called "Stanley Knife" or "cutting knife"):**<br>● Plastic or rubber handle<br>● 2 pcs spare blades<br>● Retractable blade<br>● 20cm long (blade and body) | - | Hardware | pieces | $1.50 | - | 1 | 1 | 1 |
| 28 | **Glue**<br>● Liquid Wood-glue<br>● 300g | | Hardware | pieces | $3.00 | - | 1 | 1 | |
| 29 | **Strong adhesive tape (heavy-duty duct-tape or electrical tape):**<br>● DIMENSIONS: Minimum 3m length roll. Minimum 25mm wide.<br>● PVC based or similar<br>● Weather-proof | - | Hardware | roll | $0.50 | - | 1 | 1 | |
| 30 | **Expanding foam spray:**<br>● 750g | ? | Hardware | Can | $4.00 | - | 1 | 1 | |
| 31 | **Rope / woven strapping / rubber ties** | Plastic sheeting to timber connections | Agricultural/Local supplier | roll | $5.00 | - | - | - | |
| 32 | **Flue Pipe** | Galvanised mild steel or stainless steel tube. Minimum 15cm diameter x 50cm length. Preferably with minimum 50mm width out-stand flange (collar) welded to exterior | Hardware | pieces | $5.00 | | | | |
| 33 | **Door Bolt** | Galvanised Mild Steel - Minimum 10cm long. Bolt minimum 8mm diameter,Pre-drilled with minimum 2 No. holes on each side of bolt. | Hardware | pieces | $5.00 | | - | 1 | |
| 34 | **Insulation roll** | Foil + XPE/EPE foam + Foil or white PE film - 8mm of thickness, 1.20m of width | Hardware | Roll | $96.00 | - | - | - | 1 |
| 35 | **Plastic storage box:**<br>● DIMENSIONS: Height:28cm x Width:32cm x Length:46cm.<br>● Clear plastic box with wheels and a locking lid. | - | Hardware | pieces | $5.00 | - | 1 | 1 | |
| 36 | **Documentation:**<br>● Drawing / tip sheet<br>● Content list<br>● Other… | | | pieces | $0.00 | 1 | 1 | 1 | 1 |
| 37 | **Stapples**<br>**-Flat wire**<br>**- Galvanised stell**<br>**- U shape**<br>**- 12mm leg length** | | Hardware | Box of 1000 | $5.00 | | | | 1 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 38 | **Stappler**<br>**Heavy duty staples gun (6 to 14 mm)** | | Hardware | pieces | $15.00 | | | | | 1 |
| 39 | **Kitchen sink, stainless steel** | | Hardware | pieces | $27.00 | | 1 | 1 | | |
| 40 | **Water tap, stainless steel** | | Hardware | pieces | $7.50 | - | 1 | 1 | | |
| 41 | **Water Tank 0.5 m³** | | Hardware | pieces | $94.00 | 1 | 1 | 1 | | |
| 42 | **IPEXY Aluminum 1m** | | Hardware | pieces | $2.00 | 3 | 3 | 3 | | |
| 43 | **Arabian W.C** | | Hardware | pieces | $21.00 | | 1 | 1 | | |
| 44 | **Insulation Adhesive tape** | Polyethylene Reinforced Insulation Tape/Aluminium Foiled tape | Hardware | roll | $5.00 | | | | | 2 |
| 45 | **Heater 50 L with accessories** | | Hardware | pieces | $50.00 | | | 1 | | |
| | **SUB-TOTAL MATERIAL COST =** | - | - | Kit | - | *$200* | *$354* | *$500* | | *$166* |

## *SUB-STANDARD BUILDINGS (Unfinished Houses, Converted Garages, Collective Centres etc.)*

| | | | | | | *PROPOSED "MINIMUM" SEALING OFF KITS* | | | |
|---|---|---|---|---|---|---|---|---|---|
| ***REF. NO.*** | ***ITEM DESCRIPTION AND SPECIFICATION*** | ***INTENDED PURPOSE*** | ***SUPPLIER TYPE*** | ***UNIT*** | ***INDICATIVE UNIT COST [$ USD]*** | ***LIGHT SOK*** | ***MEDIUM SOK*** | ***HEAVY SOK*** | ***Insulation Kit*** |
| 01 | **White Plastic Sheeting:**<br>● DIMENSIONS: 4m x 5m<br>● Standard Humanitarian Plastic Sheeting or "Vinyl" with a minimum weight of 380 GSM (Grams per Square Meter) | Cladding / cover / partitions | Plastic manufacturer | m2 | $0.75 | 60 | 60 | 80 | |
| 02 | **Clear Plastic Sheeting:**<br>● DIMENSIONS: 4m x 5m<br>● Transparent,<br>● 100 microns thickness, | Windows | Agricultural/Local supplier | m2 | $0.40 | 20 | 20 | 40 | |
| 04 | **Burlap cloth:**<br>● Jute or kenaf fabric or similar<br>● 350 - 450 g/m2<br>● 2 x 50m roll | Insulation | Agricultural/Local supplier | m2 | $1.20 | - | - | - | |
| 05 | **Timber:**<br>● DIMENSIONS: Depth:7.6cm x Width:7.6cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Primary (main) columns (e.g. corners and ridge) | Timber | pieces | $6.50 | - | - | - | |
| 06 | **Timber:**<br>● DIMENSIONS: Depth:5cm x Width:10cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Secondary columns / beams | Timber | pieces | $5.50 | 2 | 4 | 4 | |
| 07 | **Timber:**<br>● DIMENSIONS: Depth:2.4cm x Width:10cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Rafters | Timber | pieces | $3.00 | 2 | 7 | 10 | 11 |
| 08 | **Timber:**<br>● DIMENSIONS: Depth:5cm x Width:5cm x length:4m (±10%)<br>● Species: Seasoned Spruce, Romanian White Wood or similar<br>● Please refer to attached detailed specification for timber | Bracing / window frames | Timber | pieces | $3.00 | - | - | - | |
| 10 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:**4mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions<br>● Please refer to attached detailed specification for timber | Doors / partitions | Timber | pieces | $7.50 | - | 6 | 10 | |
| 11 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:**9mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions<br>● Please refer to attached detailed specification for timber | Doors / partitions | Timber | pieces | $13.00 | - | - | 2 | |
| 12 | **Plywood Sheet :**<br>● DIMENSIONS: Thickness:18**mm (minimum)** x Width:122cm x Length:244cm<br>● Species: Canadian Douglas Fir, Finnish Spruce or similar.<br>● 3 plies or minimum. Plies laid such that the grain is running in orthogonal directions | Doors / partitions | Timber | pieces | $20.00 | 1 | 1 | 1 | |
| 13 | **Concrete Nails:**<br>● DIMENSIONS: 4mm shank diameter x 50 mm long. with head,<br>● Galvanised mild steel. | Timber to concrete/block-work/brickwork connections | Hardware | Box (400g each, ac | $1.10 | - | 1.0 | 1.0 | 2.0 |
| 14 | **Roofing Nails:**<br>● DIMENSIONS: 4mm shank diameter x 60 mm long.<br>● Galvanised mild steel.<br>● Domed head.<br>● Rubber washers included | Plastic sheeting to timber connections | Hardware | kg | $4.00 | - | - | - | |
| 15 | **Timber nails:**<br>● DIMENSIONS: 4mm shank diameter x 50 and 75mm length. With bulge-head<br>● Galvanised mild steel. | Timber to timber connections | Hardware | kg | $1.25 | 1.0 | 1.0 | 2.0 | |
| 16 | **Timber Screws:**<br>● DIMENSIONS: 4mm shank diameter x 20mm long.<br>● Galvanised mild steel.<br>● Flat bulge-head.<br>● Compatible with 6mm wide blade screw-driver described below | Primary (main) timber to timber connections | Hardware | kg | $4.00 | 0.5 | 0.5 | 0.5 | |
| 17 | **Galvanised steel washers:**<br>● Sized to fit to screws | | Hardware | kg | $2.50 | - | - | - | |
| 18 | **Steel Angle Sections ("90 degree connector"):**<br>● DIMENSIONS: Minimum size = 10x10x2.5cm (i.e. each out-stand leg = 10cm long). Minimum plate thickness = 3mm.<br>● Galvanised mild steel.<br>● Folded into 90 degree angle.<br>● Pre-drilled with minimum 3 holes per out-stand leg. | Primary (main) timber to timber connections | Hardware | pieces | $0.25 | 4 | 10 | 20 | |
| 19 | **Metallic Wire Mesh:**<br>● DIMENSIONS: Preferred 2cm x 2cm mesh. Preferred minimum 1m width<br>● Aluminium. | Windows | Hardware | m2 | $1.00 | - | - | 2 | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 20 | **Hinges:**<br>● DIMENSIONS: Minimum 15cm long x 3cm wide outstand arm. Minimum 7cm long x 3cm wide base-plate.<br>● Galvanised mild steel.<br>● T-shaped barrel hinge.<br>● Pre-drilled with minimum 4 no. of holes on each side of the hinge | Doors | Hardware | pieces | $0.50 | 6 | 6 | 6 | |
| 21 | **Hasp / latch:**<br>● DIMENSIONS: Minimum 10cm length x 3cm wide.<br>● Galvanised mild steel.<br>● Minimum 4 no. pre-drilled holes per component for fixing.<br>● To be compatible with padlock described below. | Doors | Hardware | pieces | $1.00 | 1 | 1 | 1 | |
| 22 | **Padlock:**<br>● DIMENSIONS: Body size minimum 4x4x2cm. Shackle minimum 6mm diameter.<br>● Galvanised mild steel.<br>● To be supplied with minimum 2 no. keys | Doors | Hardware | pieces | $1.50 | 1 | 1 | 1 | |
| 23 | **Carpentry Hammer:**<br>● DIMENSIONS: Minimum overall length = 35cm long.<br>● Solid metal head<br>● Wooden or rubber-coated handle.<br>● 1kg in weight | - | Hardware | pieces | $3.50 | - | 1 | 1 | 1 |
| 24 | **Wood Saw:**<br>● DIMENSIONS: Minimum overall length = 50cm long.<br>● Tapered / Trapezoid shaped saw, not a bow saw<br>● Wooden or rubber-coated handle. | - | Hardware | pieces | $6.50 | - | 1 | 1 | |
| 25 | **Screw-driver:**<br>● DIMENSIONS: 6mm wide blade-head, Shaft length:12.5cm, Minimum overall length:22cm.<br>● Wooden or rubber-coated handle<br>● Fully insulated. Small mains tested:200-250 volts AC<br>● Must fit wood-screws listed above | - | Hardware | pieces | $1.00 | - | 1 | 1 | |
| 26 | **Tape Measure:**<br>● DIMENSIONS: Minimum measurement length:5m. Preferred measurement length:10m<br>● Circular/disc-shaped.<br>● Preferred metal case<br>● Hand-coil (not sprung). | - | Hardware | pieces | $3.00 | - | 1 | 1 | |
| 27 | **Cutter (also called "Stanley Knife" or "cutting knife"):**<br>● Plastic or rubber handle<br>● 2 pcs spare blades<br>● Retractable blade<br>● 20cm long (blade and body) | - | Hardware | pieces | $1.50 | - | 1 | 1 | 1 |
| 28 | **Glue**<br>● Liquid Wood-glue<br>● 300g | | Hardware | pieces | $3.00 | - | 1 | 1 | |
| 29 | **Strong adhesive tape (heavy-duty duct-tape or electrical tape):**<br>● DIMENSIONS: Minimum 3m length roll. Minimum 25mm wide.<br>● PVC based or similar<br>● Weather-proof | - | Hardware | roll | $0.50 | - | 1 | 1 | |
| 30 | **Expanding foam spray:**<br>● 750g | | Hardware | Can | $4.00 | - | 1 | 1 | |
| 31 | **Rope / woven strapping / rubber ties** | Plastic sheeting to timber connections | Hardware | roll | $5.00 | - | - | - | |
| 32 | **Flue Pipe** | Galvanised mild steel or stainless steel tube. Minimum 15cm diameter x 50cm length. Preferably with minimum 50mm width out-stand flange | Hardware | pieces | $5.00 | | | | |
| 33 | **Door Bolt** | Galvanised Mild Steel - Minimum 10cm long. Bolt minimum 8mm diameter,Pre-drilled with minimum 2 No. holes on each side of bolt. | Hardware | pieces | $5.00 | | - | 1 | |
| 34 | **Insulation roll** | Foil + XPE/EPE foam + Foil or white PE film - 8mm of thickness, 1.20m of width | Hardware | Roll | $96.00 | - | - | - | 1 |
| 35 | **Plastic storage box:**<br>● DIMENSIONS: Height:28cm x Width:32cm x Length:46cm.<br>● Clear plastic box with wheels and a locking lid. | - | Hardware | pieces | $5.00 | - | 1 | 1 | |
| 36 | **Documentation:**<br>● Drawing / tip sheet<br>● Content list<br>● Other… | | | pieces | $0.00 | 1 | 1 | 1 | |
| 37 | **Stapples**<br>**-Flat wire**<br>**- Galvanised stell**<br>**- U shape**<br>**- 12mm leg length** | | Hardware | Box of 1000 | $5.00 | | | | 1 |
| 38 | **Insulation Adhesive tape** | Polyethylene Reinforced Insulation Tape/Aluminium Foiled tape | Hardware | roll | $5.00 | | | | 2 |
| 39 | **Stappler**<br>**Heavy duty staples gun (6 to 14 mm)** | | Hardware | pieces | $15.00 | | | | 1 |
| | **SUB-TOTAL MATERIAL COST =** | - | - | Kit | - | *$100* | *$201* | *$300* | *$166* |