



**Shelter Cluster**  
ShelterCluster.org  
Coordinating Humanitarian Shelter

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# **Shelter Cluster**

## **Technical Working Group**

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**Northern Region of Mozambique**  
**March 25, 2021**

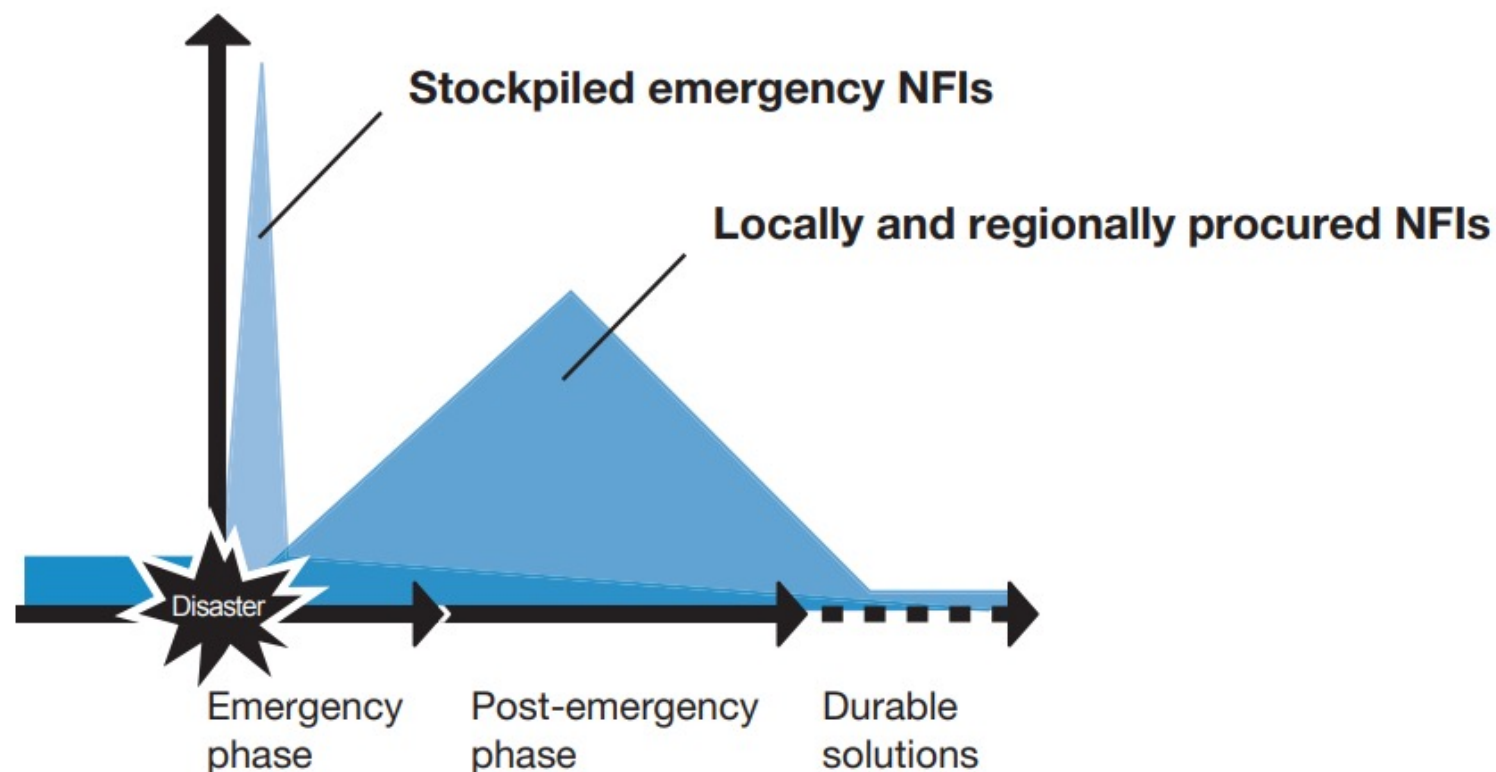
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# Agenda

- **Introductions**
- **Last meeting summary**
- **Refresher on the Basics of Non-Food Items (NFIs)**
  - Classification, coordination, target population, combination of other assistance methods, NFI considerations, etc.
- **NFI specifications**
- **Non-Food Items (NFIs) and Shelter kit content (for open discussion)**
  - Multi-Sectoral Rapid Response Kits “Survival Kits”
  - Basic Emergency Shelter and Basic NFI Kits
  - Emergency Shelter Type A
  - Emergency Shelter Type B
  - Basic Tool Kit
  - Other Tool kits
- **IEC materials and alternatives**
- **AOB**

# Basics of Non-Food Items (NFIs)

- ✓ The demand for different NFIs change over time (from emergency phase to durable solutions)

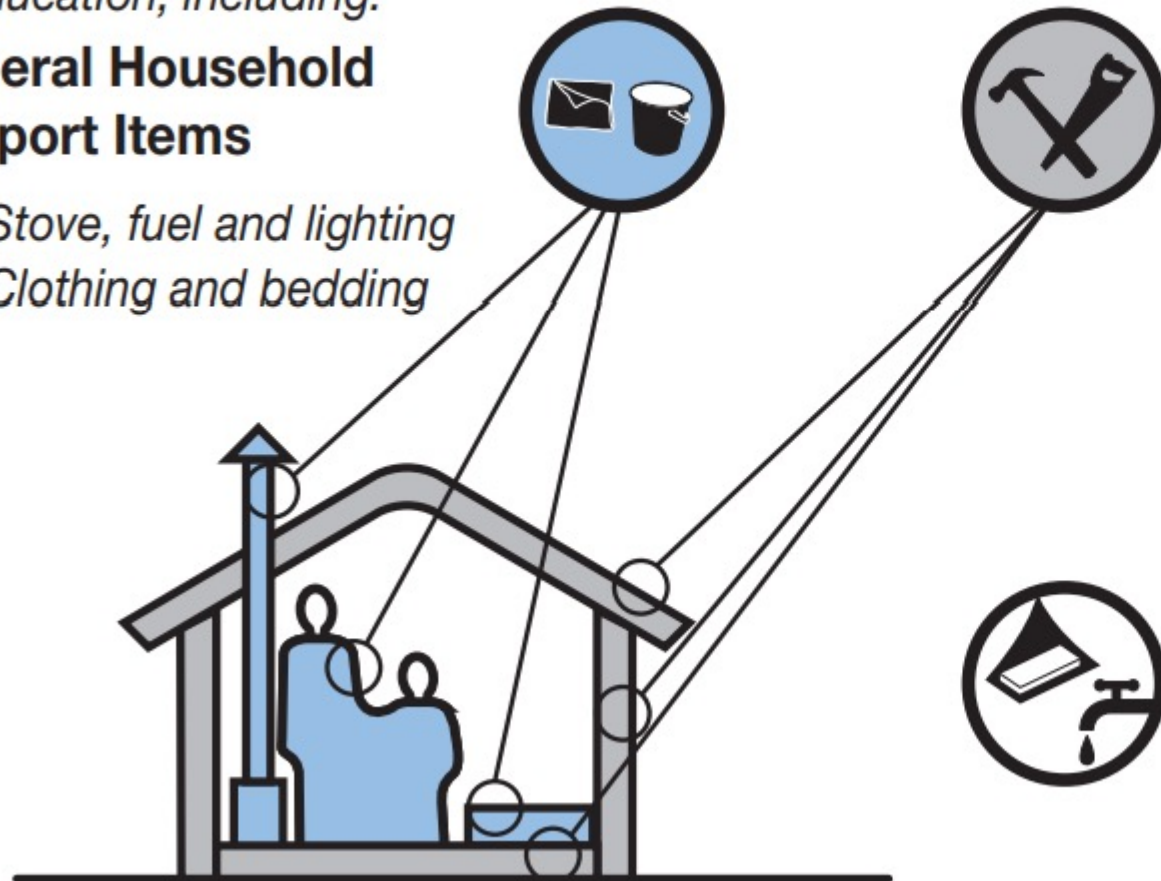


# Non-Food Items (NFIs) classification:

*Items which usually do not require additional instruction, promotion, or education, including:*

## General Household Support Items

*e.g. Stove, fuel and lighting*  
*e.g. Clothing and bedding*



*Items which usually require additional instruction, promotion, and/or education, including:*

## Household Shelter Construction Support Items

- Construction materials  
*e.g. plastic sheeting, CGI*  
*e.g. timber, bamboo, bricks*  
*e.g. flooring, roof insulation*
- Tool kits  
*e.g. hammer, shovel, axe*

## Household WASH Support Items

*e.g. Mosquito nets*  
*e.g. Household water treatment*

# Coordinating NFI distributions...

- ❑ Effective distributions requires **efficient coordination** within sectors, and involving all stakeholders, including the affected population and government.
- ❑ NFIs are only one part of the shelter response, these should be part of an integrated shelter strategy
- ❑ Good coordination avoids gaps and overlaps in assistance.

# NFI distributions to displaced and non-displaced populations

## ❑ Displaced Populations:

- Priority is **survival**
- Rarely are able to carry anything other than the lightest and most essential items
- Require a combination of NFI packages (*General Household Support Items + Household Shelter Construction Support Items*)

## ❑ Non-Displaced Populations:

- Priority is **survival**
- May involve repairing or rebuilding homes and recovery of their livelihoods.
- Some extreme cases may involve provision of the basic NFI items

# NFI distributions don't come alone...

## Human capital



Direct labour



Community labour



Contract labour

## Natural capital



Environmental & resource management

## Social capital



Information centres and teams



Supervision & technical expertise



Legal & administrative



Capacity building

## Physical capital



General Household Support Items



Household Shelter Construction Support Items



Household WASH Support Items

## Financial capital



Cash



Vouchers



Loans



Insurances & guarantees



Market interventions

# Steps for selecting the NFI package:



# NFI specifications:

## 5.2.1 Blankets and quilts



### There are three main types of blankets:

- **woven blankets**, which are made from second hand clothes;
- **fleece blankets**, which are made from woollen blankets, with better insulation in contact with the skin; and
- **quilts**, which are made of synthetic sheet (commonly polypropylene) blankets and not appropriate for some countries only.

In some circumstances sleeping bags may be used for older people, ill people and young children.

### Technical recommendations

**Thermal resistance:** where applicable, appropriate values may be required for colder climates to provide TOG values.

## 5.2.2 Bedding: mats, mattresses and beds



### Mats, beds and mattresses include:

- mats made of woven straw or plastic strips;
- mats based on closed cell foam;
- mattresses made of closed cell foam;
- beds with steel or aluminium frames.

Mats, beds and mattresses should be used to reduce heat loss to the ground. This is particularly important in warmer climates.

### Procurement and transportation

The major insulating material is closed cell foam. They often have a large pack size. For this reason, organisations often do not stock closed cell foam. Some do stock closed cell foam for local or regional supplies.

In environments where access to roads is limited, transportation of mattresses may be difficult.

### Seasonal material availability

Grass, reed or palm mats may be available in some areas. In these mats, provision may be required for colder climates to provide TOG values.

## 5.2.3 Cook sets



Cook sets, also known as kitchen sets, are complete sets of cutlery for the food preparation and serving needs. They are designed to enable cooking and serving food for a group of people.

Cooking stoves (see section 5.2.4), methods of cooking, so cultural considerations should be taken into account for cook sets.

### Materials

All pots and pans should be made from aluminium. Strength and durability. Appropriate laboratory testing should be included in the ICRC/IFRC catalogue.

Woks are commonly made of cold hammered steel.

Handles for pots should be made of aluminium. They should have strong rivets or bolts. The end of the handle should be designed to provide a hanging hook for the pot.

### Thickness

- **pots/pans:** minimum 1.75 mm for aluminium, 2.00 mm for steel
- **bowls:** minimum 1.00 mm for aluminium, 0.50 mm for steel
- **cutlery:** minimum 1 mm (back of knife blade)

## 5.2.5 Plastic sheeting as a covering

Plastic sheeting is also known as plastic tarpaulin, tarp or polythene sheet. It is a sheet of strong, flexible, waterproof material. It should always be considered as a possible material for distribution along with rope, wire or nails and materials from which a shelter could be built.

Although different qualities of plastic sheeting exist, those suitable for humanitarian relief are made from polyethylene to standards that were effectively agreed between major organisations in the 1990's. Some of the specifications such as UV resistance can only be found by detailed laboratory testing. As such, it may not be possible to verify all of the specifications when sheeting is procured locally.

A standard sheet has a black woven core and is laminated on both sides. All plastic sheeting must reach minimum performance standards outlined below. Transparent versions and heavier duty versions may be used for windows or ground sheets.

Standard plastic sheeting is commonly available in 4 m wide rolls, or in sheets, measuring at least 4 m x 6 m. 7 m wide sheets have shown to be more useful for building tent-like structures, however the pros and cons of increasing the size of plastic sheeting, versus overall coverage of the population, will have to be weighed by decision makers in consultation with local stakeholders.

Also consider shade nets for some applications.

### Standard specification:

**Weight:** 200 g/m<sup>2</sup> ± 5% (ISO 3801). Add 10% for reinforcement. Lighter versions that meet the material performance specifications below might also be considered.

**Core material:** woven fabric High-Density Polyethylene (HDPE). Black colour, as this

# General Guidance for NFI

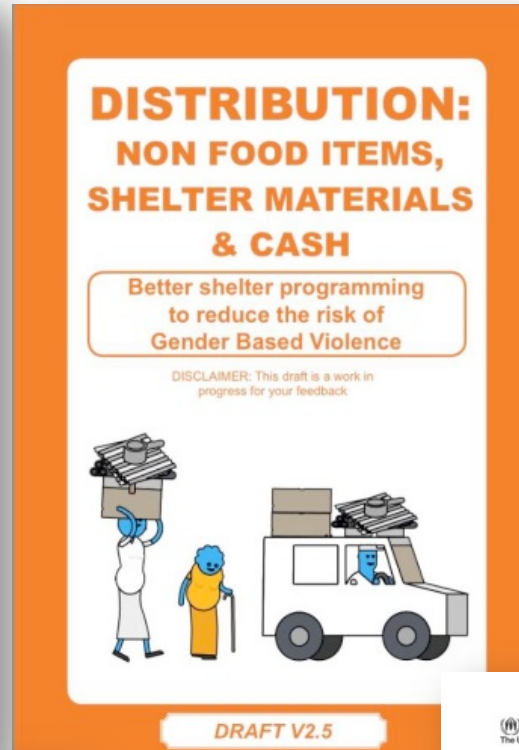
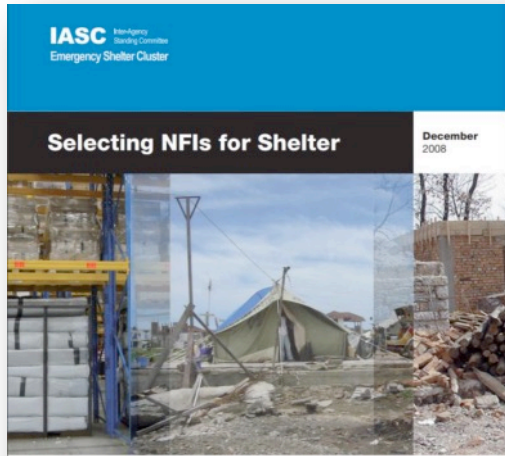
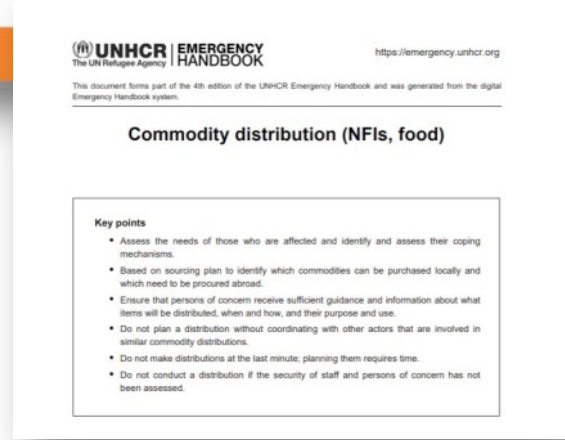
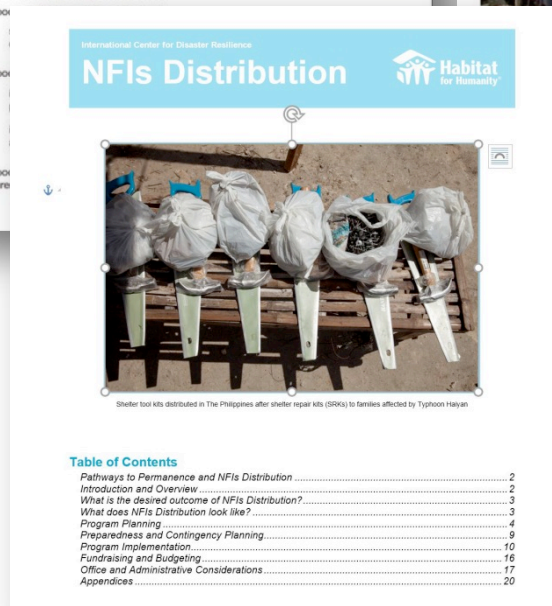


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# Multi-Sectoral Rapid Response Kits

## “Survival Kits”

- 1) Used in **areas of transit** or for **populations ‘on-the-move’**.
- 2) Designed to support a family for a period of **up to 2 weeks**.
- 3) Not expected to cover the whole needs of a family, but to provide **life-saving support to the most vulnerable** within the family.
- 4) Should **not be distributed to populations who will be at a site** (in camp-like settings or out-of-camp settings) for more than 2 weeks.
- 5) Regardless of the chosen kit items, **the weight should not exceed 8-10 kg** so that it can easily be transported by air for an emergency response and for beneficiaries to be able to carry if they are on the move.



# Multi-Sectoral Rapid Response Kits

## “Survival Kits”

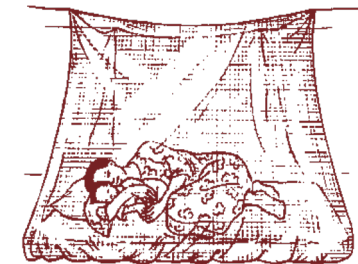
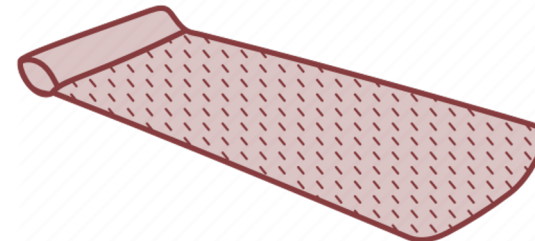
	Survival Kit / Shelter Cluster Mozambique	Survival Kit / Shelter Cluster South Sudan	Other optional	Recommendation from TWG
<b>Health</b>	Oral Rehydration Salts (ORS); 2 mosquito nets			
<b>Nutrition</b>	(might not be applicable in Moz context) ... 4 BP5 packets or 18 High Energy Biscuits;	4 packages of BP5		
<b>WASH</b>	2 collapsible jerry cans; 2 bottles Certeza	buckets with lid, PuR sachets, soap		
<b>FSL</b>	2 packets of vegetable seeds;	fishing kits, packets of vegetable seeds		Seeds for a 2 week timeframe?
<b>Shelter/NFI</b>	NFI storage bag; 1/2 kitchen set	kitchen sets, mosquito nets, NFI storage bag	Plastic sheet (full or half) Solar lamps	Plastic sheet? What about blankets, esteiras?

- Rethink a 2 week timeframe??
- What is the base to decide the content of this kit?
- Multisectoral assessment in Mueda: results to come next week



# Basic Emergency Shelter and Basic NFI Kits

- 1) This kit(s) should be delivered when IDPs will be at a site **for more than 2 weeks**. It is intended to address basic household needs such as sleeping comfort, collection of water, maintaining hygiene, lighting and security, and contribute to a family's ability to cook.
- 2) Kit is composed of a **minimum of 4 items** from the agreed list.
- 3) Kit design / composition should address each of the above basic household needs



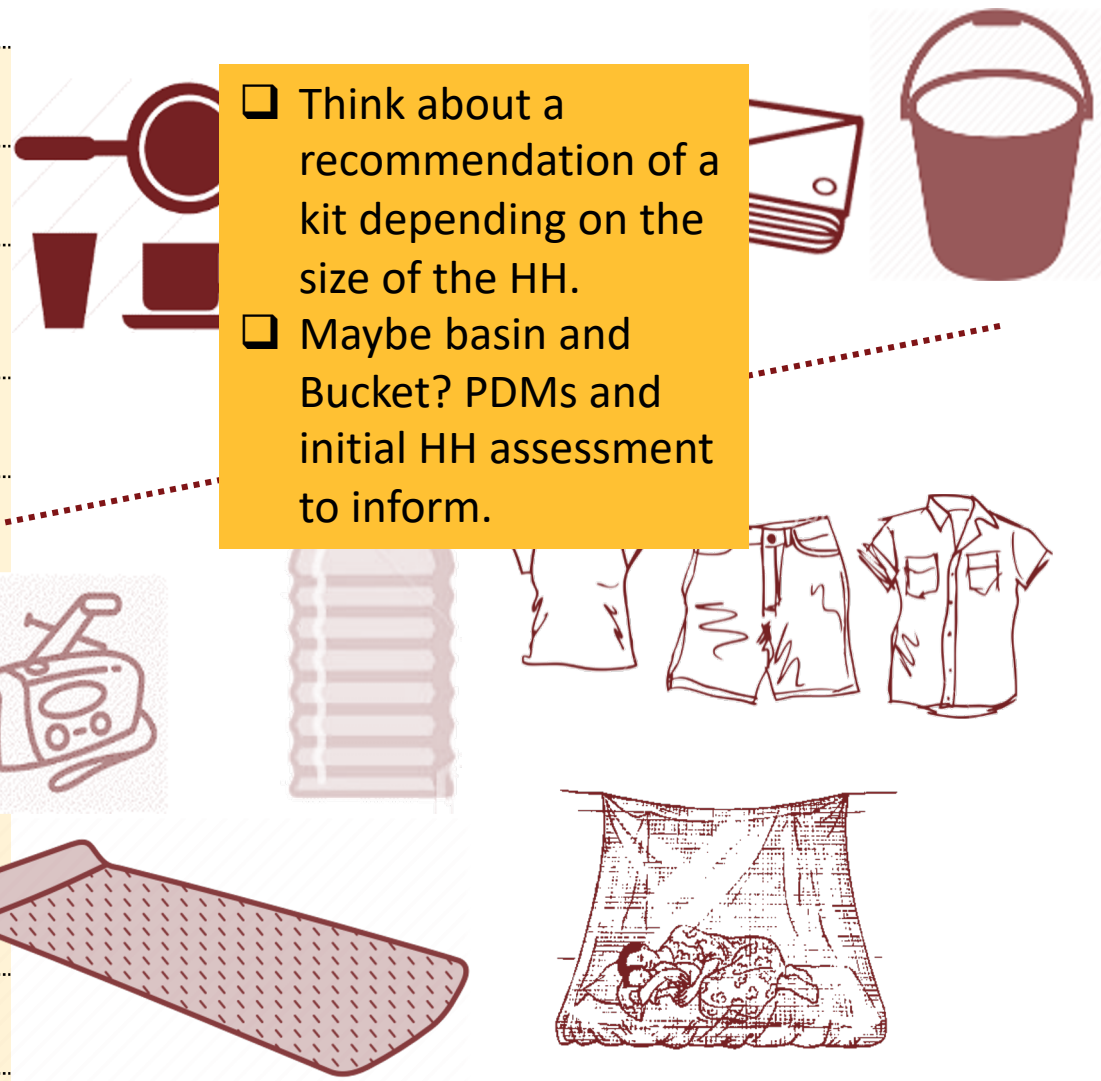
# Basic NFI Kit

	Standard minimum Units/HH	Other additional Units/HH	Recommendation from TWG
Blankets	2/HH		
Sleeping Mats		2/HH	
Mosquito Nets		2/HH	
Bucket	1/HH	2/HH	
Jerry Can		1/HH	
Solar lamp		1/HH	
Kitchen set	1/HH		
Clothing (4-6 piece)		1/HH	



# Basic Emergency Shelter and NFI Kit

	Standard minimum Units/HH	Other additional Units/HH	Recommendation from TWG
Tarpaulin (4x6m)	1/HH		
Blankets	2/HH		
Sleeping Mats		2/HH	
Mosquito Nets		2/HH	
Bucket	1/HH	2/HH	From PDMs, low rating What about testing with a basin? Tested in Memba and Mecufi.
Jerry Can		1/HH	From PDMs, low rating What about testing with a basin? Tested in Memba and Mecufi.
Solar lamp		1/HH	
Kitchen set	1/HH		From PDMs, high rating
Clothing (4-6 piece)		1/HH	Capulanas?
<b>Certeza</b>		1-2/HH	To be included? How to ensure continuation?



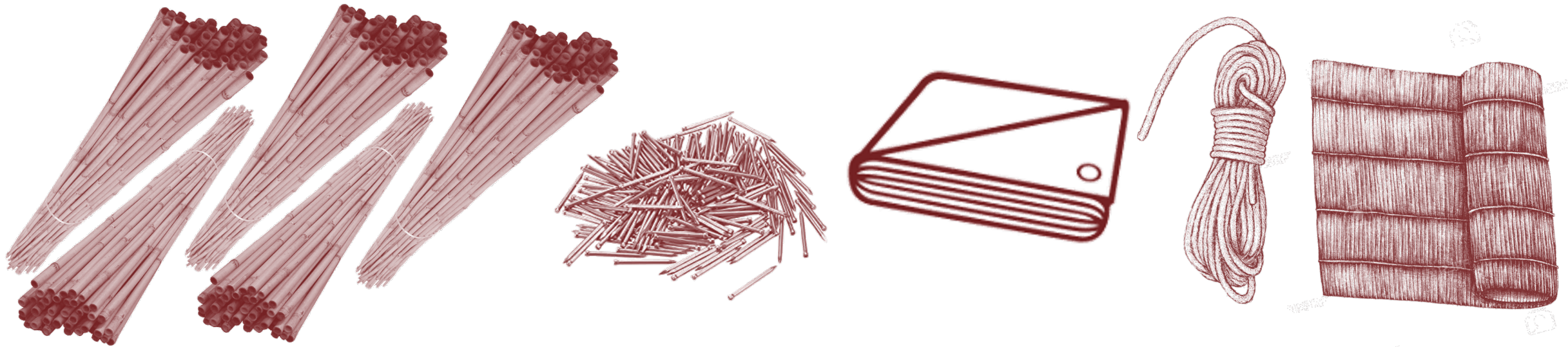
Think about a recommendation of a kit depending on the size of the HH.  
 Maybe basin and Bucket? PDMs and initial HH assessment to inform.

# Emergency Shelter Type A

- 1) This Shelter material kit(s) should be delivered when IDPs will be at a site **for more than 2 weeks and ideally less than 6 months**. It is intended to address basic shelter needs for construction of an Emergency Shelter Type A (3.2m x 3m= 9.6sqm)
- 2) Kit can be top-up with a basic tool kit
- 3) For families bigger than 3-4 members, provide with 2 kits



# Emergency Shelter Type A



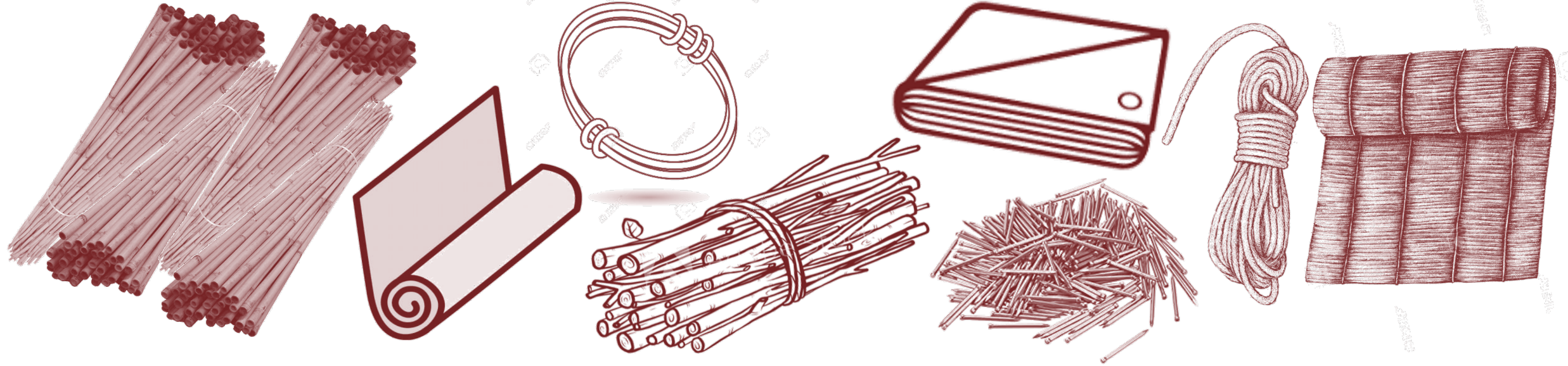
Item Description	Unit	QTY	Unit Cost	Total Cost MZN	Total Cost USD
Mature bamboo of 5-8cm thick and 4m long (1 bundle contains 20 pieces of bamboo)	Bundle	5	200.00	1,000.00	
Common wire nails (3.5")	Kg	3	120.00	360.00	
Recycled rubber cord "Corda de pneu" to tie structure	Bundle	3	200.00	600.00	
Esteira de bamboo (2.10m x 1.70m)	Unit	1	250.00	250.00	
Tarpaulin: Reinforced woven black HDPE fibers fabric and LDPE coating., 4 m X 6 m	Unit	1	1,229.10	1,229.10	
				MZN 3,439.10	USD 46.19

# Emergency Shelter Type B

- 1) This Shelter material kit(s) should be delivered when IDPs will be resettled at a site **for the purpose of transitioning to a permanent solution**. It is intended to address basic shelter needs for construction of an Emergency Shelter Type B (3.2m x 5.5m= 17.6sqm)
- 2) Kit can be top-up with a basic tool kit



# Emergency Shelter Type B



Item Description	Unit	QTY	Unit Cost	Total Cost MZN	Total Cost USD
Wooden poles 8cm (estacas)	Pieces	13	80.00	1,040.00	
Mature bamboo of 5-8cm thick and 4m long (1 bundle contains 20 pieces of bamboo)	Bundle	12	200.00	2,400.00	
Common wire nails (3.5")	Kg	3	120.00	360.00	
Recycled rubber cord "Corda de pneu" to tie structure	Bundle	3	200.00	600.00	
Esteira de bamboo (2.10m x 1.70m)	Unit	13	250.00	3,250.00	
Tarpaulin: Reinforced woven black HDPE fibers fabric and LDPE coating., 4 m X 6 m	Unit	1	1,229.10	1,229.10	
Burn wire	Kg	1	150.00	150.00	
Thick Plastic Sheeting (34 linear meter)	Meter	1	2,000	2,000.00	
				MZN 11,029.10	USD 148.14

# Emergency Shelter Type B



# Basic Tool Kit



Claw hammer (weight: 16oz, wooden handle, replaceable, Head in forged steel/high carbon steel, Good quality)  
1 Unit



Handsaw (all purpose, 400-450mm blade, good quality, teeth from tempered and hardened steel. Unbreakable handle, Saw blade covered in protective cardboard)  
1 Unit



Measuring Taper 5 meter long  
1 Unit



(2.5 pound) Hoe with wooden handle 130 cm "Enxada"  
1 Unit

# Carpenter Tool Kit

Claw hammer (weight: 16oz, wooden handle, replaceable, Head in forged steel/high carbon steel, Good quality)



Handsaw (all purpose, 400-450mm blade, good quality, teeth from tempered and hardened steel. Unbreakable handle, Saw blade covered in protective cardboard)



Carpenter Try square (90°), steel



Chisel, wooden handle, 32mm



Metal smoothing plane, 12"



Manual drill: "Berbequim" with bits (1mm, 3mm, 5mm)



Mallet with wooden handle, 2lb



Carpentry Steel plumb bob, 8 ounce



24" spirit I beam level



Carpenter Steel rasp file (triangle file) with handle



▲  
Triangular File

Steel bowsaw with blades (5 piece)



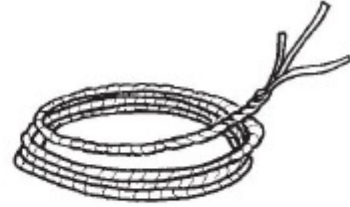


# IFRC Tool Kit

## SHELTER TOOL KIT – Quantity per kit: 1 (KRELSHEK01) Contains:

### ROPE – Quantity per kit: 1

A universal fixing with many uses, such as binding timbers together, stabilising structures or fixing tarpaulin in place.



### HANDSAW – Quantity per kit: 1

The handsaw is for cutting timber to required size. Do not use on metal or other hard materials.



### NAIL for roof sheets – Quantity per kit: ½Kg (approximately 1lb.)

Nails for roofing sheets have a domed head and a washer. They are used for fixing tarpaulins to timber, and for fixing corrugated iron sheet. When used properly the nails will not let rain seep through their own holes.



### SHOVEL – Quantity per kit: 1

The shovel is useful when preparing the foundation of a shelter. It can also be used for digging trenches around the shelter if it is raining. It can be used as an everyday tool when disaster affected people re-establish their livelihoods.



### HOE – Quantity per kit: 1

The hoe can be used to prepare the ground for a shelter. It can be used as an everyday tool when disaster affected people re-establish their livelihoods.



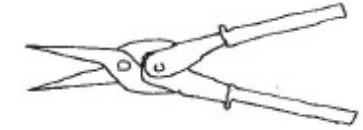
### MACHETE – Quantity per kit: 1

The machete is shaped like a very big knife. It is also useful for clearing sites, shaping timber or bamboo, and cutting extra materials.



### SHEARS – Quantity per kit: 1

The shears are for cutting metal roofing sheets, and wire. Cutting wire or nails with the shears will damage them.



### NAILS, LARGE – Quantity per kit:

½kg (approximately 1lb.)

These are 75mm long, simple nails for building with timber.



### NAILS, SMALL – Quantity per kit:

½kg (approximately 1lb.)

These are 40mm long, simple nails for building with timber.



### TIE WIRE – Quantity per kit: 25m

(approximately 82ft.)

1.5mm diameter tie wire can be used for binding timber or bamboo, or for fixing tarpaulins. It can also be used for reinforcing structures and for diagonal bracing.



### CLAW HAMMER – Quantity 1

For driving and removing nails, and for working with other tools to make joints.



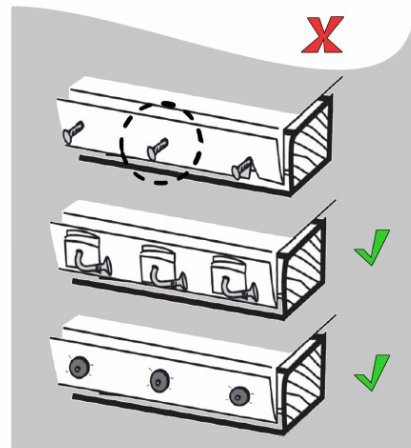
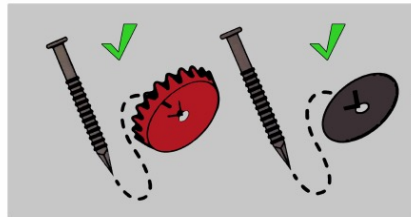
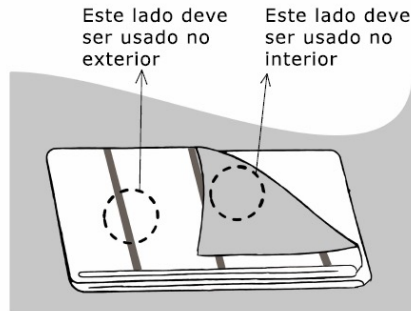
### WOVEN SACK – Quantity 1

Woven sack is for easy packaging and transportation of the shelter kit.



# Communications

## USO E FIXAÇÃO DE LONAS



**Em abrigo de emergência**



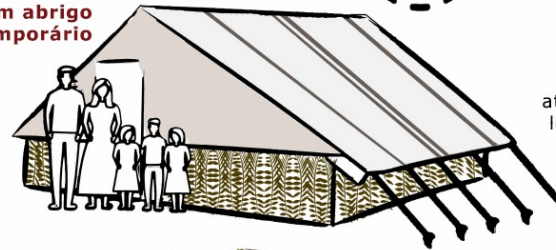
Evite que a água entre com sacos de areia ou elevação do solo

Um furo sem reforço irá rasgar mais rápido

Amarrar a lona embrulhada sobre uma pedra reforça as conexões

Passar a corda através de um nó na lona deixa a ligação mais resistente

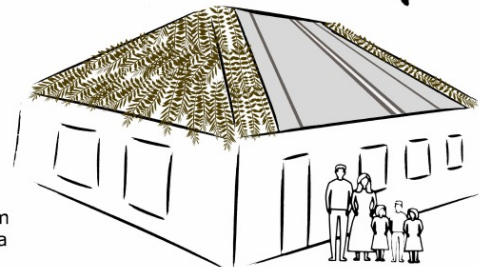
**Em abrigo temporário**



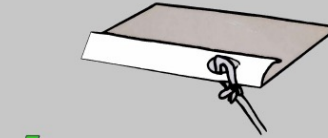
Não fixe a lona só com pregos

Pregue a lona com tampas de garrafa ou pedaços de plástico dobrado

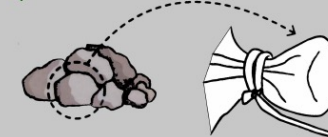
**Em reparação do telhado**



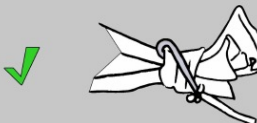
**X**



✓



✓



Conecte a drenagem de cada abrigo a um sistema de drenagem local

Com o financiamento de:

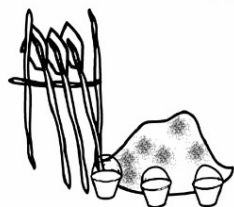


## Diretrizes básicas para abrigos em centros de realocação

### Medidas de segurança contra incêndios

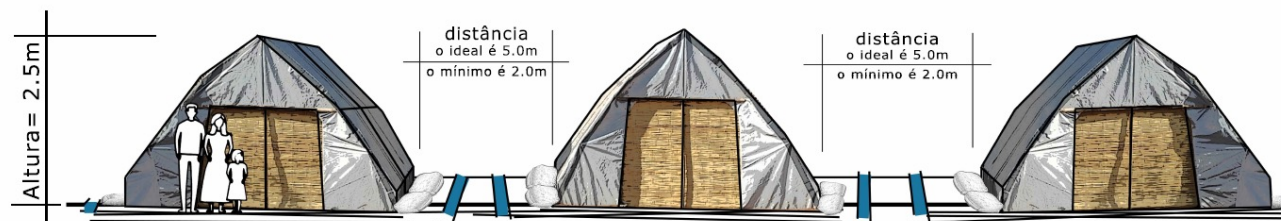


Criar comitês de comunitários de prevenção e combate a incêndios

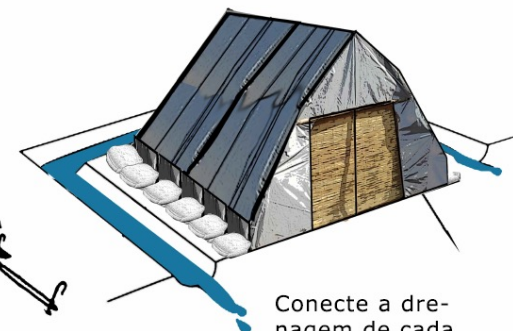
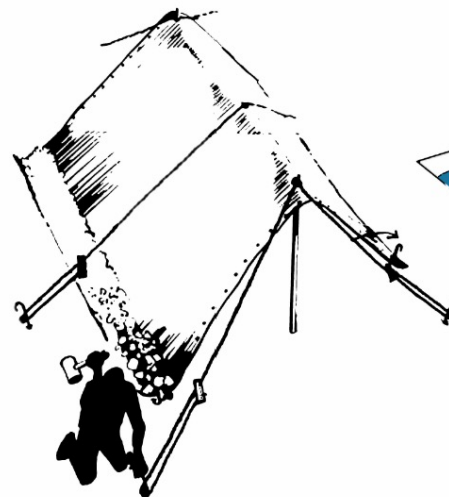
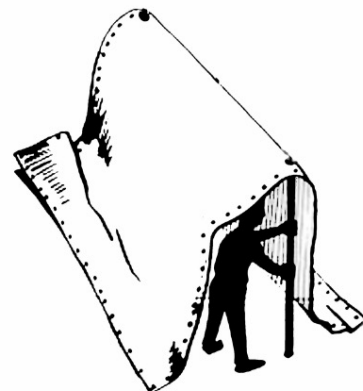


Coloque baldes de areia para combate a incêndios

Os abrigos devem ser montados com uma distância de 2 vezes a altura dos abrigos e um mínimo de 2 metros entre sí. Instale um sistema de drenagem ao redor de cada abrigo.



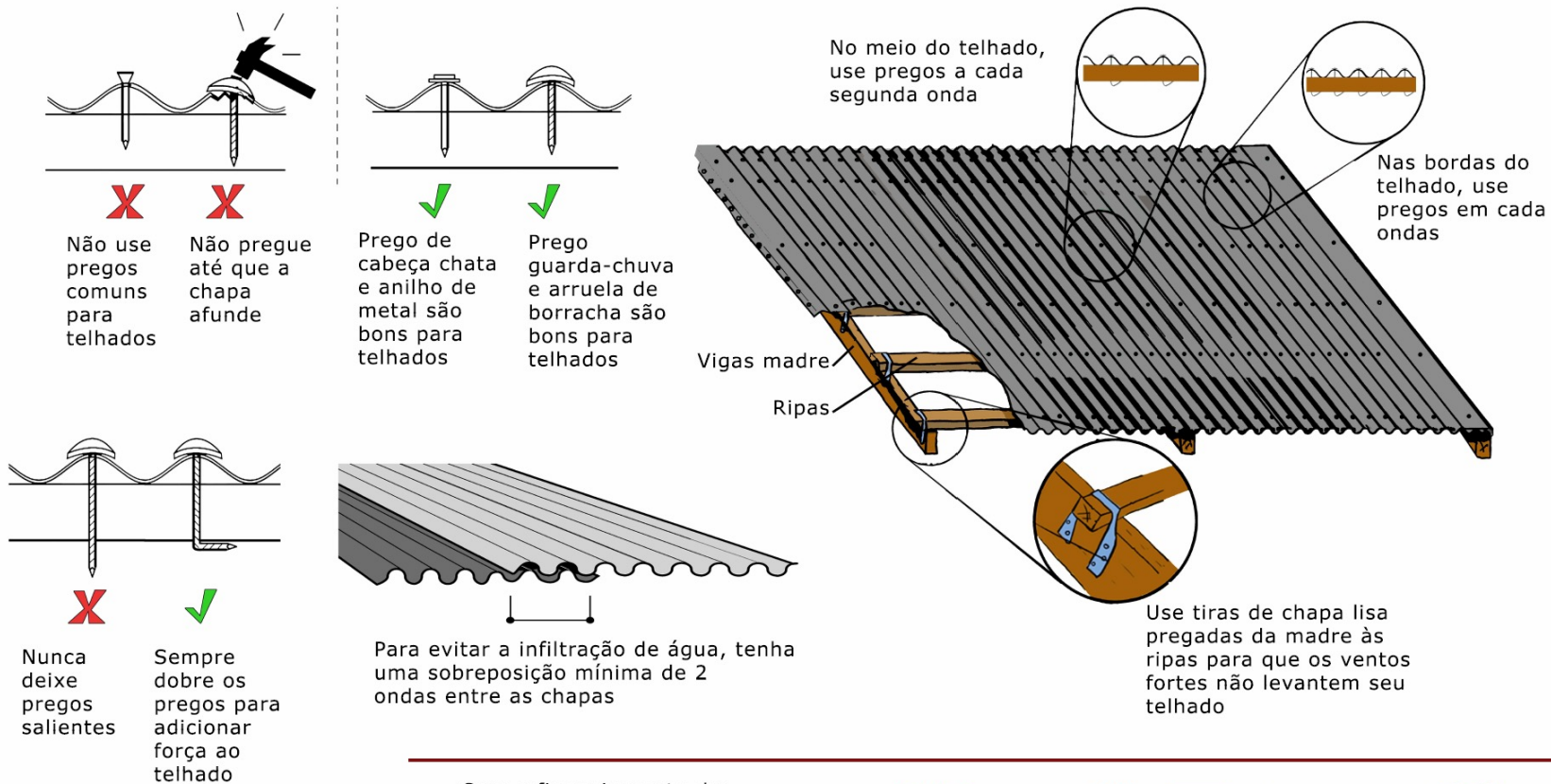
### Montagem de um abrigo simples



Conecte a drenagem de cada abrigo a um sistema de drenagem local

Com o financiamento de:

## Recomendações técnicas para instalação de chapas de zinco no telhado



Com o financiamento de:

# Communications



# Communications

