

UNHCR Sustainable Supply

Supply Management Service
Division of Emergency, Security and Supply

Reduce Environmental Footprint

Generate Increased Income





UNHCR's Mandate

The role of Supply

Responding with life-saving support

safeguard the rights and well-being of people who have been forced to flee

Safeguarding fundamental human rights

ensure that everybody has the right to seek asylum and find safe refuge in another country

Building better futures

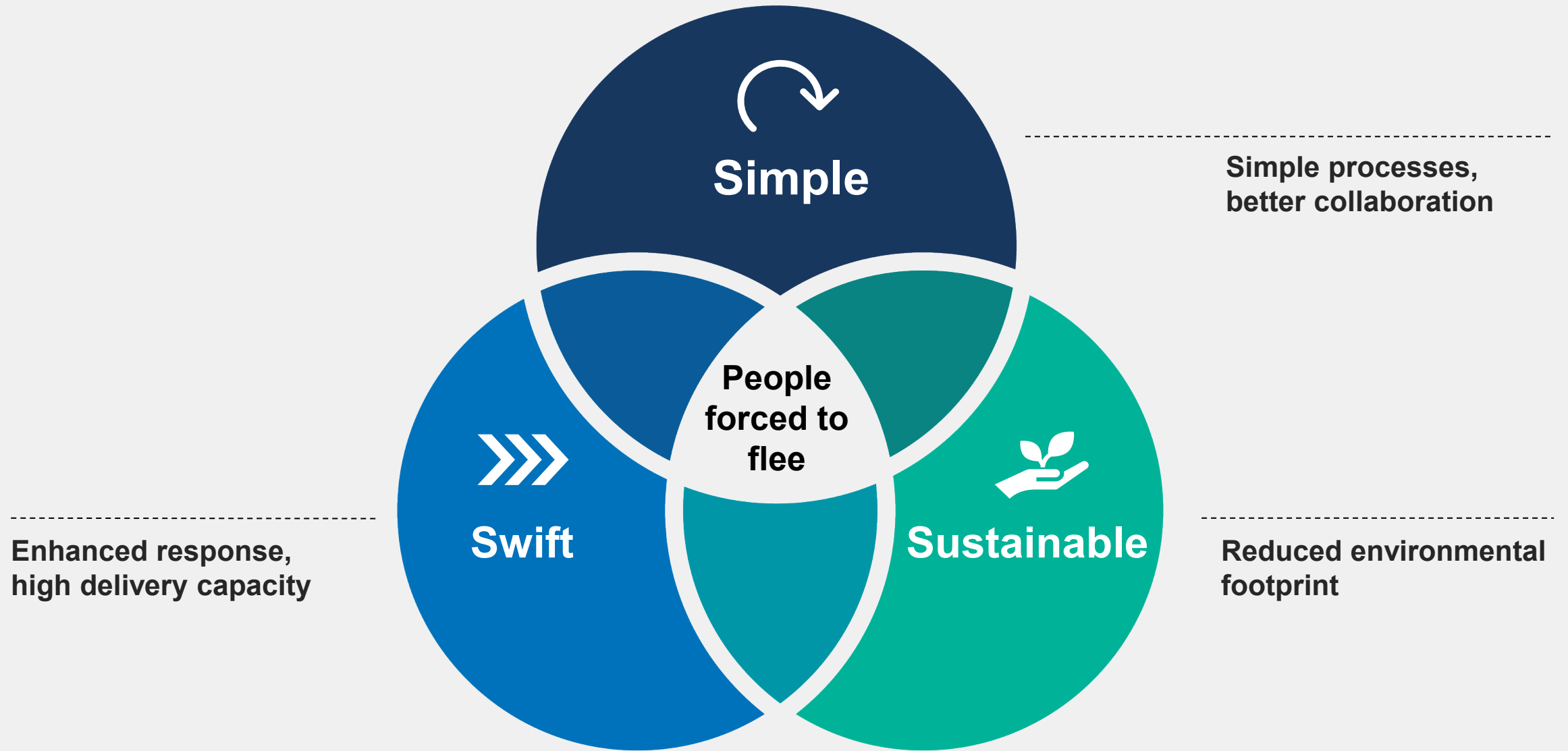
secure lasting solutions



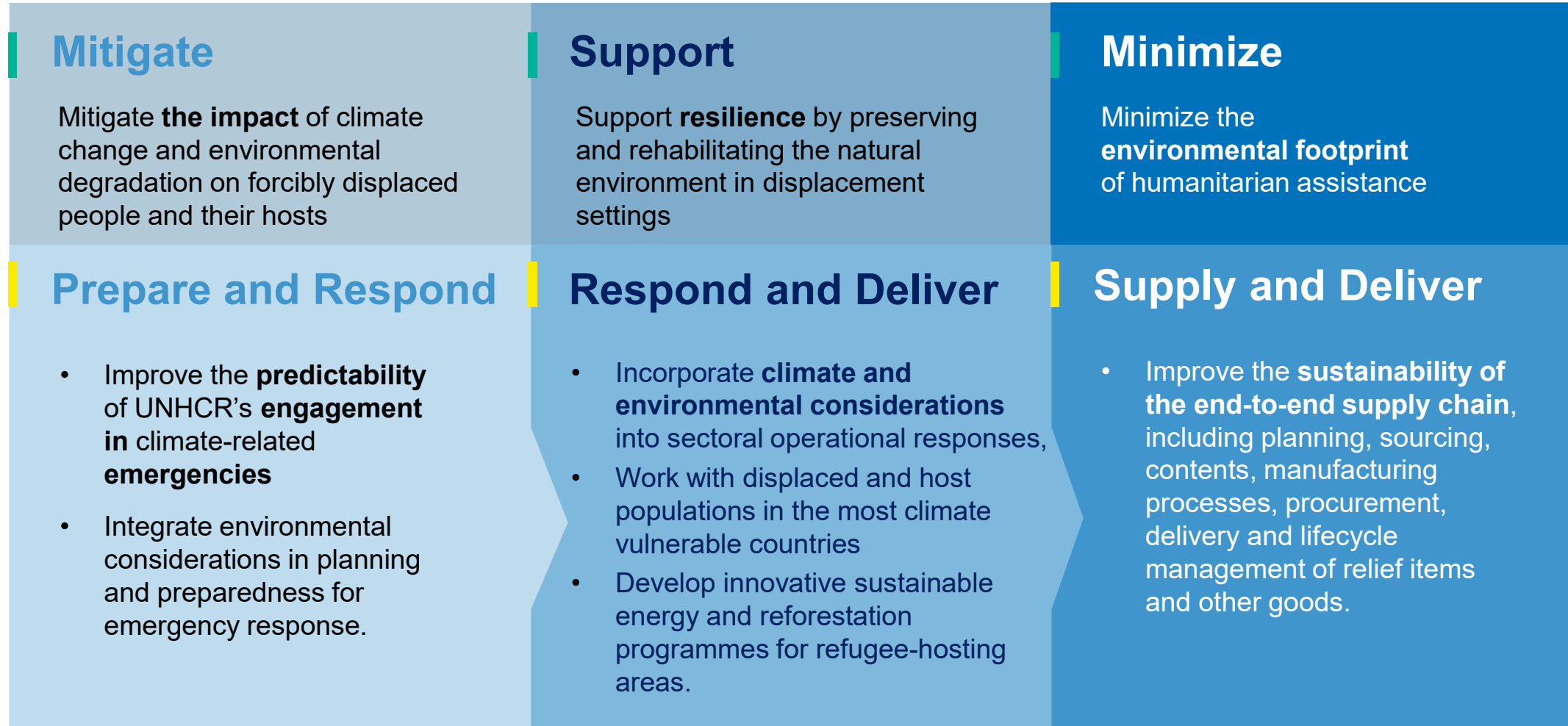
UNHCR Supply aims to deliver **quality goods** and services across UNHCR, and to people forced to flee, in a timely, efficient, and **sustainable** manner.

© UNHCR/Alissa Everett

UNHCR Supply Vision



Multi-dimensional approach in UNHCR strategy for sustainability



2025 Sustainable Supply Strategy Workstreams

1 Supply Planning and Network Design

- Optimize and integrate storage and inventory standards
- Align procurement to need/demand for inventory items
- Structured decision process for CRI sourcing & distribution
- Sustainability comms plan

2 Supply chain Market-Shaping and Sustainable Sourcing

- Greener products, with new or selected current suppliers
- New source markets and products, new sourcing options
- Deeper supplier engagement and collaboration

3 Sustainable Procurement

- Enhanced / expanded specifications for CRIs and selected internal goods
- Expanded notion of “Value for Money” in bid evaluation, giving preference to triple-sustainable products along their lifecycle

4 Sustainable Logistics and Inventory

- Consolidated inventory control / optimization
- Counting the miles - proximity sourcing and intermodal transport arbitration
- Comprehensive Green and Lean packaging, full container loads

5 Product lifecycle quality management

- Expanded post – distribution product quality and sustainability assessment
- Field staff and user validation exercises and post-usage disposal practices review

20% by 2025

Aggregate average GHG per POC from CRIs will be reduced by 20%
Biodegradable or recycled content from CRIs will be increased by 20%

Sustainable Supply Target 2025

UNHCR SUSTAINABLE SUPPLY CULTURE

Developed through deliberate sourcing, procurement and delivery of goods with minimal environmental and negative social impact

MATERIAL

Increasing environmentally sustainable material in UNHCR relief items & reducing associated GHG emissions



RESEARCH

Conducting research to guide procurement & inventory practices, sustainability-friendly standards & processes and the reduction of greenhouse gas emissions

VENDORS

Assessing regional vendors to identify sustainable supply opportunities in national markets

ENGAGEMENT

Engaging displaced and host populations in the pilot testing of greener relief items

Sustainable Supply Target 2025:

- ✓ Build a culture of sustainability
- ✓ Identify alternative sourcing options
- ✓ Test more sustainable alternatives
- ✓ Engage existing and new counterparts

FOCUS















Plastic and GHG
reduction













- 1 Aggregate GHG emissions from production and delivery of key CRIs **reduced by 20%**
- 2 Biodegradable or recycled content in CRIs **increased by 20%**
- 3 Proportion of plastic in CRI packaging **reduced by 20%**
- 4 CO₂ emissions from international freight **reduced by 10%**
- 5 Average duration of stock on hand in country operation warehouses **reduced by 25%**
- 6 Geographic distribution of Global Frame Agreements for 8 CRIs **expanded**, with a **25% reduction** in concentration of source markets
- 7 **70 country operations** targeted with **supply waste management** services (full loads, recycling, repurposing, safe disposal)
- 8 Specifications –initially for 8 CRIs (and generators)- **updated and improved** for environmental sustainability
- 9 Energy efficiency from UNHCR generators **increased by 20%** in 70 target operations

The emission baseline has been estimated for key items to ~303 ktCO₂ per year with blankets and family tents as the highest emitters

2018-2020 average

	Emission factor ktCO ₂ /million units	Quantity procured million	GHG emissions baseline ktCO ₂ /year excl. transport	Expenditure USD million
 Blankets	22	3.99	86	15
 Family Tents	609	0.099	61	25
 Mattresses	27	1.6	47	24
 Kitchen Sets	30	0.8	24	14
 Sleeping Mats	9	1.73	21	4
 Tarpaulins	12	2.3	20	21
 Solar Lanterns	30	0.64	19	13
 Generators	736	0.0003	8.1	11
 Refugee Housing Units	496	0.015	7.6	18
 Mosquito Nets	4	1.08	4	2
 Buckets & Jerrycans	2	1.55	2.6	2
 Laptops	177	0.008	2	11
Total			303	160

The emission baseline has been estimated for key items to ~303 ktCO₂ per year, hereby listed by the highest emitters

Baseline: 2018-2020 average		Emission factor ktCO ₂ /million units	Quantity procured million	GHG emissions baseline ktCO ₂ /year excl. transport	Estimated GHG emissions reduction by 2025 ktCO ₂ /year excl. transport
	Blankets	22	3.99	86	49
	Family Tents	609	0.099	61	In progress
	Mattresses	27	1.6	47	In progress
	Kitchen Sets	30	0.8	24	In progress
	Sleeping Mats	9	2.3	21	12
	Tarpaulins	12	1.73	20	8
	Solar Lanterns	30	0.64	19	In progress
	Generators	736	0.0003	8.1	Solarization solutions
	Refugee Housing Units	496	0.015	7.6	In progress
	Mosquito Nets	4	1.08	4	In progress*
	Buckets & Jerrycans	2	1.55	2.6	0.5
	Laptops	177	0.008	2	In progress
Total				303	69.5**

*Sustainable solutions for mosquito nets are under discussion for potential inter-agency collaboration.

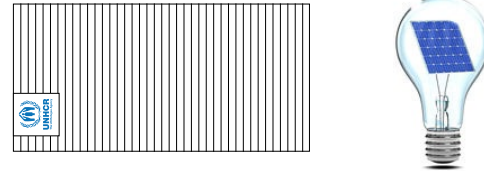
**Total CO₂/year emissions reduction in CRIs resulting from greener specifications.



Green Specifications

In implementation

- Medium thermal blanket
 - High thermal blanket
 - Bucket
 - Jerrycan
 - Sleeping mat
 - Kitchen set
 - Solar lantern
 - Canvas roll
- Methodology for sustainability evaluation finalized
- Procurement started in Q3 2023
- Blankets 100% recycled tested and ready – at least **same quality and prices** under current FAs



Green Specifications

In preparation

- Mattress (for regional procurement)
 - Energy Generation & Stockage*
 - Tarpaulin**
 - Tents**
 - Mosquito Nets***
 - Clothing (guidelines)
 - Hygienic Pads/Kits
- Specifications are in progress
- *pending minimal standards verification
- **inter-agency
- ***pending WHO prequalification



Green Labeling

In implementation

- Green labelling as first step to address product life-cycle management
 - Refugees engaged as sustainability-aware end-users
 - QR code gives end-users more protection-related info
- Recycled and recyclable components of materials indicated
- “Right to repair” included in specifications of solar lanterns



Warehousing

In implementation:

- Green box installations to guide future solarization
 - Assessment of warehouse waste management to re-use and recycle packaging
- 30+ locations identified for green boxes
- Model development to re-use and recycle packaging

TESTING: Quantity of recycled plastic that can be introduced in a product without decreasing the quality

20% by 2025

Aggregate average GHG per refugee from relief items will be reduced by 20%
Biodegradable or recycled content from relief items will be increased by 20%



Testing / Feedback

In implementation

- Medium thermal blanket
- High thermal blanket

In preparation

- Recycled jerrycan and bucket
- Testing solar lanterns with cases made of 100% recycled plastic



Comparative Analysis of Carbon Emission of CRIs

In implementation

- Development of a calculator to evaluate the carbon emission related to the materials and packaging of items

NB:

- For blankets, replacing virgin materials with recycled polyester amounts to a 56% reduction in emissions
- Changing packaging materials and increasing compression save approx. 20-50% of the packaging-related emissions



Proximity Sourcing

In implementation

- Identification of region-specific CRI suppliers
- Proximity of suppliers to the areas where UNHCR operates
- Reduction of carbon footprint and stimulation of the local economy

In preparation

- Initial focus on sub-Saharan Africa and Latin America
- Market engagement with suppliers



Waste Management

In implementation

- Waste management strategy for operations and supply activities in UNHCR
- Mapping of best practices and potential suppliers

In preparation

- Standardized in all country operations (full loads, recycling, repurposing, safe disposal etc.)
- Reduction and management of waste resulting from disposal of packaging and items, at the end-of-life cycle

FEEDBACK: Involvement of final users and field staff with newly developed products

20% by 2025

Aggregate average GHG per refugee from relief items will be reduced by 20%
Biodegradable or recycled content from relief items will be increased by 20%



Compressing items

In implementation

- Increasing the bale compression to reach a 60% rate
- Using recycled plastic or tarps for secondary packaging

Estimated outcome (per year):

- Reduction of over 50 containers a year
- 20% savings on cost and CO₂ on transport



Palletizing items

In preparation

- Confirming the optimization of the palletization with the best market solutions
- Engaging suppliers in their own testing

Estimated outcome (per year):

- Increasing the loading efficiency of containers by up to 22% (from 48 to 60 pallets per 40' container)



Single-use packaging

In implementation:

- Removing all the unnecessary single-use plastics from the relief items
- Finding alternative sustainable packaging options

Estimated outcome (per year):

- Reducing almost 100 tonnes of plastic annually
- Over 1 000 tonnes CO₂ saving



UNHCR branding

In implementation:

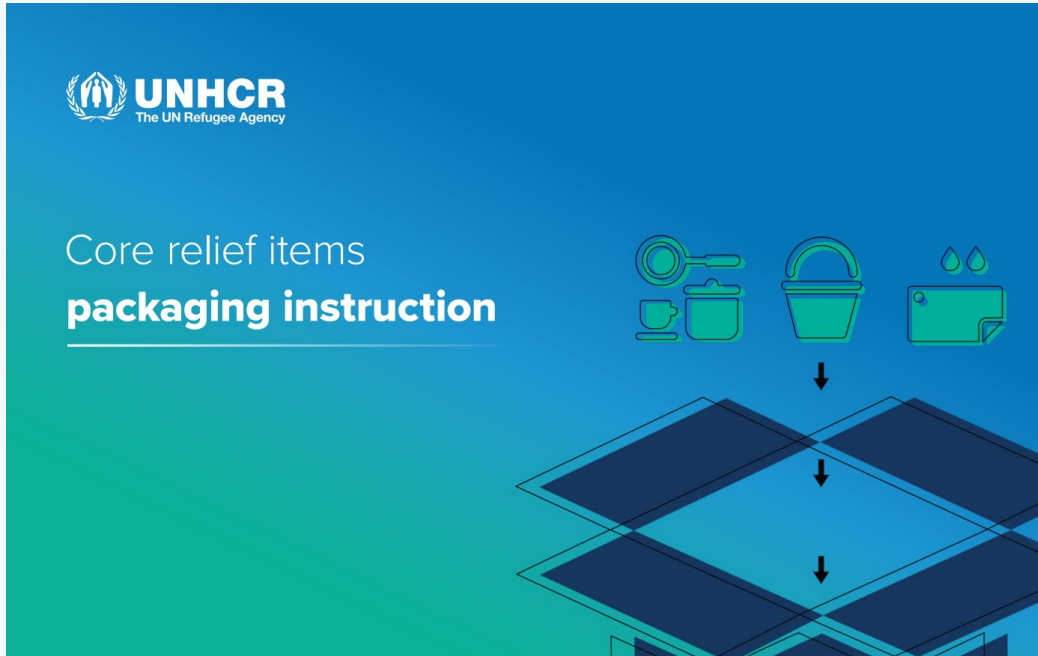
- Reducing the use of dyeing/coloring
- Using water-based ink and more sustainable options (such as recycled cardboard)

Estimated outcome (per year):

- 50% CO₂ and 70% less use of water (by substituting white coating with naturally colored cardboard boxes and lighter water-based ink)

OPTIMIZING: Reduction of CO₂ in international transport and packaging leads to cost savings

Specifications and Packaging



Link: [Sustainable Supply Strategy \(unhcr.org\)](https://www.unhcr.org/sustainable-supply-strategy)

Greener specifications

- BLANKET, SYNTHETIC 1.5 x 2m, HIGH THERMAL, RECYCLED
- BLANKET, SYNTHETIC 1.5 x 2m, MEDIUM THERMAL, RECYCLED
- BUCKET, HEAVY DUTY PLASTIC, 14L, WITH TAP, RECYCLED
- BUCKET, HEAVY DUTY PLASTIC, 14L, RECYCLED
- JERRYCAN, SEMI-COLLAPSIBLE, 10L, RECYCLED
- KITCHEN SET
- PORTABLE SOLAR LANTERN
- SLEEPING MAT, RECYCLED

Sustainable ways of collaborating

Plan

Develop a culture of durability and sustainability (*prevent, reduce, reuse, repurpose, dispose, recycle*) from the beginning and advocate for waste as a resource

Standardize

Sustainability is embedded in supplier evaluation, eco-relief items, green labelling, packaging, transport options and waste management

Cooperate

Widen access to **partner** framework agreements, piggybacking, combined transports where possible, common piloting

By working together, we improve and standardize products, reduce customization, and increase economy of scale.

Thank you!

