Climate Action
Accelerator

hulo

Pilot project report

Sustainable procurement in the humanitarian sector

Beirut - Lebanon

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Table of Contents

ACKNOWLEDGMENT 2
1. INTRODUCTION 3
2. EXECUTIVE SUMMARY 4
3. METHODOLOGY 6
4. IDENTIFIED ALTERNATIVES 7
5. MIDDLE EAST CONTEXT: LEARNINGS FROM THE FIELD 10
7. RECOMMENDATIONS FOR IMPLEMENTATION 13
7. CONCLUSIONS 14
8. APPENDICES – PROJECT DOCUMENTS 15

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1. INTRODUCTION

Humanitarian procurement today must meet several imperatives at once: respond faster to needs, reduce costs, localise procurement further, and lower environmental impact. These objectives are often considered separately, when in reality they are closely linked.

Theoretical solutions and studies already exist on sustainable procurement, but their practical application in the field remains limited. There are several reasons for this: local, sustainable suppliers are not always identified; cost differences between sustainable and conventional products are rarely documented, so the purchase price, rather than the total cost of ownership (TCO), remains almost the only criterion in procurement decisions; and technical guidance adapted to the local context is lacking.

This project grew out of these observations, with a simple question: ***is it possible, in practice, to procure both locally and sustainably in the humanitarian sector?*** Beyond this central question, the project also seeks to document how sustainability can, in the long run, strengthen preparedness rather than hinder it. Lebanon and the wider Middle East were chosen for the first pilot given the maturity of the local market for sustainable alternatives, the strength of hulo's field team and the availability of experienced local consultants able to ensure rigorous follow-up.

The choice of this region also reflects a view widely shared within the humanitarian community in the region: **waiting for conditions to stabilise before acting on the environmental impact of humanitarian activities would mean never acting at all.** Initiating this project in this region at this point of time was therefore a deliberate choice to showcase that reducing the environmental impacts of humanitarian activities is also possible in conflict-affected regions.

> *"If there is no emergency, we do not act. So, we might as well act with sustainability in mind."* A workshop participant, June 2026

2. EXECUTIVE SUMMARY

The Accelerator and hulo focused on the **goods and services most frequently procured in the field by humanitarian organisations in the Middle East. A list of 25 priority goods and services** was established by prioritising categories that **are both significant in financial volume and environmental impacts**.

For the first 10 priority goods and services, a review of **environmental impacts**[1] **combined with a detailed local market assessment** to verify **availability** and **price differences** was carried out, namely for **car rental services, emergency latrines, food parcels, training, soap, T-shirts and textiles, buckets, laptops, printers, and blankets**. For each priority item, a **factsheet** with environmental and human health impacts is available, along with a practical guidance to help procurement and operational teams buy more sustainable options. The factsheets also include cost analyses.

For the remaining 15 goods and services, the project team engaged suppliers to identify more sustainable alternatives and assess price differences. No further environmental analysis was carried out for those.

The key findings of the project are:

- **Sustainable and/or local alternatives are available, even in a conflict setting.** At least **one sustainable or locally produced alternative was identified for 20 of the 25 items assessed**, including all 10 priority items. The main challenge is therefore not a lack of solutions, but limited awareness and knowledge of the local market, which stronger supplier engagement can address.
- **Sustainable alternatives are, in several cases, cheaper than the standard option**, particularly when considering the total cost of ownership (TCO). TCO includes not only the purchase price but also the costs incurred over the product's lifetime, such as operation, maintenance, and disposal. Less expensive sustainable alternatives were found for textile-based items, reusable hygiene products, sheep-wool blankets, refurbished computers and printers, and some soaps. Some alternatives were available at an equivalent price, while others were more expensive.
- **Existing environmental knowledge and TCO tools can effectively guide procurement decisions.** The project confirmed that environmental hotspots remain largely the same within each product category, regardless of whether a product is sourced locally or regionally. Generic impact assessments, such as the

[1] For five of the ten items a more detailed environmental assessment was performed, for the remaining five sufficient data on environmental impacts was available from existing reports and studies.

one currently being developed by the Accelerator, can therefore reduce the need for costly product-specific assessments. TCO analyses should be used more widely to account for costs beyond the initial purchase price. Phase 2 of the project will develop a standardised TCO tool for the sector.

- **Interest in sustainable procurement in Lebanon remains strong, including in times of crisis.** Despite the war and a deteriorating regional context, humanitarian organisations and suppliers engaged actively in the pilot: 60 completed supplier questionnaires (a 26.5% response rate), 23 supplier visits, and 2 workshops confirmed the interest of local actors and a dynamic ecosystem of suppliers that work on more sustainable alternatives.
- **Local suppliers can be supported to meet humanitarian needs.** Some currently have limited capacity, but adapted procurement approaches, such as smaller-scale tenders, phased purchasing, framework agreements and appropriate lotting, can help them access humanitarian markets and scale up their production. Humanitarian organisations have an active role to play to support local producers to grow their business with more sustainable products by actively asking for these alternatives.
- **Further work is needed to scale up sustainable procurement**, in particular by strengthening and qualifying local suppliers, improving knowledge of available local alternatives, adapting programme design, tenders and technical specifications, developing cost-comparison tools such as TCO, and creating an enabling environment for sustainable businesses.

The project showed that sustainable local procurement is already possible for several items. An already planned phase 2 of the project will focus on addressing some of the identified barriers, such as supplier qualification and capacity building, as well as the further development of TCO comparison tools.

3. METHODOLOGY

Identification of priority items

The methodology to establish a list of priority items combined a macro and micro analysis of procurement data combined with a scoring method. The project consortium analysed five years of spend data for goods and services of ten hulo member organisations, combined with an analysis of the most procured items according to the purchasing management systems of 3 hulo and 3 Accelerator member organisations. The identified list of items was prioritised using a scoring method that included the dimensions of volume (i.e. importance), data availability, environmental impact reduction potential, emission factor uncertainty, and feasibility of reducing impacts. The list was subsequently arbitrated and validated by the hulo team based in Beirut.

This approach resulted in a **consolidated list of 10 priority items**: car rental services, emergency latrines, food parcels, training, soap, T-shirts and textiles, buckets, laptops, printers, blankets. An additional 15 non-food items (NFIs) such as toothbrushes, kitchen sets and nappies were included in the supplier engagement activities but not further analysed for environmental impacts.

Identification of environmental impacts

For each of the 10 priority items the project team analysed whether environmental analyses or life cycle assessments (LCA) were already available. Depending on the data availability, existing studies were enriched with **Lebanon-specific data** (for training and buckets), new assessments were carried out (T-shirts, emergency latrines and soaps), or whether sufficient data on environmental impacts was already available (laptop, printer, car rental, food parcel and blanket), refer to Appendix 1 - Price comparison & environmental analysis methodologies for more details. The goal of the new assessments was to identify environmental and human health hotspots adapted to the Lebanese context, not to carry out a complete life cycle assessment.

Market assessment

The next step was to carry out an in-depth market assessment, in order to **identify local, sustainable alternatives readily available on the local market**. A supplier questionnaire was sent to over 100 suppliers, and 23 site visits were undertaken to better understand the manufacturing or operating process of some of the local sustainable suppliers. The aim was also to understand why more sustainable options were rarely used, even where they were available. These findings fed directly into the **first workshop in Beirut.**

> The ambition behind this collective effort is that this pilot project will pave the way for the **genuine operationalisation of local and sustainable procurement** and thereby **help reduce the environmental footprint of the humanitarian sector**, **procurement being, for most organisations, the single largest source of emissions in their carbon footprint**.

Total cost of ownership analysis

To test the common assumption that sustainable options are always more expensive, the project compared conventional and more sustainable options for five items: printers, car rental, laptops, soap and blankets.

A simple purchase-price comparison quickly proved insufficient, so the project adopted a total cost of ownership (TCO) approach. TCO is a method that evaluates the full cost of an asset or product over its entire life cycle, including energy or fuel consumption, maintenance, consumables, and disposal. By capturing these additional cost dimensions, TCO offers a more accurate and comprehensive basis for comparing options.

Taking into account the full cost over a product's life cycle, the sustainable alternative was often the more advantageous option. However, results depend on how products are used and which assumptions about lifespan and maintenance are taken. Reliable data on actual usage is often missing, notably for consumables, as they are strongly dependent on product formulation and manufacturing processes. TCO is particularly relevant for durable products such as electronics or vehicles. TCO should be complemented by real-life quality testing for consumables, standardised through harmonised supplier data requirements, and always combined with environmental, social and technical criteria rather than used as the sole decision criterion.

4. IDENTIFIED ALTERNATIVES

This section summarises the market assessment that was performed to identify local and sustainable alternatives for conventional procurement items, covering 10 priority items and 15 additional items for which first insights were gathered.

- **Based on this market analysis, sustainable and/or locally manufactured alternatives were identified for all of the 10 priority items. Additionally, for 10 of the 15 items alternatives were found, though not further assessed.**
- **Cost outcomes are highly item and supplier dependent**: **Alternatives based on reuse, upcycling, or refurbishment** (second-hand and deadstock textiles, refurbished IT equipment, reusable hygiene products**) are consistently cost-competitive or cheaper** than the conventional item, especially once assessed on

a total-cost-of-ownership (TCO) basis rather than unit price. Others, however, are more expensive; see below.

- **Alternatives that require reformulating a chemical/manufactured product** (shampoo, laundry powder, toothpaste) carry the largest cost, sometimes 8 to over 25 times the standard price, **because they depend on imported specialty raw materials** and are produced at a **much smaller scale than mass-market imports**. This distinction is a useful lens for prioritising which categories are ready for near-term switching versus which need longer-term market development.

- Environmental analyses aim to identify where impacts are concentrated across a product's life cycle, so that efforts can be focused on the most significant levers. In general, **environmental impacts occur predominantly at 4 of the 5 life-cycle stages: raw materials, production, use and end-of-life. Transport does not have a significant impact, except when air freight is used**. The exact distribution, however, depends on the product: for most, 2 of these 4 stages account for the large majority of environmental impacts. The results obtained for the products analysed specifically in the Lebanese context confirm this finding.

- **Local procurement therefore does not automatically come with lower environmental impacts.** Sourcing from a local supplier, does not necessarily mean that the product is locally produced. Even when locally produced, many products still rely on **imported raw materials**. Only a few of the identified products are genuinely local from end to end, such as olive-oil soap made from local olive by-products and sheep-wool blankets made from Lebanese wool.

- LCA and TCO share the same life cycle perspective: both look beyond the purchase to consider how long a product lasts, what it consumes during use and what happens at the end of its life. They often point in the same direction. **Extending product lifespan, for example, reduces both environmental impacts and costs**, as shown by refurbished laptops and sheep-wool blankets.

- Several suppliers offer **social co-benefits beyond cost and environment**. A number of the identified suppliers are social enterprises with an explicit livelihoods mission (e.g., training and employing vulnerable women, refugee-camp-based production).

Note that the names and contact details of the identified sustainable and local suppliers cannot yet be disclosed in this report, as they have not been formally validated. **Supplier pre-qualification is one of the objectives of Phase 2 of the project**.

Items	Best local alternative	Cost: Best available alternative compared to standard item	Climate impact
T-shirts	Upcycled T-shirts (deadstock)	−33%	-34%
	Second-hand T-shirts	−80%	-24%
Emergency latrines	Modular recycled-plastic blocks	+25-33% (reusable, may offset costs over time)	Climate impacts depend on use life compared to cement blocks and if latrines would effectively be reused and how often
Soap	Locally produced soap	−39%	-48%
Training	Online training Sustainability-oriented local venue	−98% −6%	-99% -13%
Buckets	Locally produced food-grade bucket (virgin plastic)	+34% (lower with larger orders)	-2%
Laptops	Refurbished, with warranty	−24% per year (TCO)	No environmental assessment performed
Printers	Refurbished or open box	−11% per year (TCO)	
Blankets	100% sheep wool New local fleece	−68% over lifetime (TCO) −11%	
Car rental	Hybrid vehicle	+1.4% at ~47 km/day; cost-neutral or cheaper above ~67 km/day (TCO)	
Food parcels	Less meat/fish; replacing rice with alternative cereals (bulgur, freekeh, sorghum…) Organic rice	No cost analysis performed +62% per kg	

A more detailed table that also includes an overview of the results for the 15 additional items is provided in the Appendix 2 – Overview of identified alternatives.

5. MIDDLE EAST CONTEXT: LEARNINGS FROM THE FIELD

Perceptions vs. reality: What are the key findings of the pilot?

The pilot made it possible to test several common assumptions about sustainable procurement in the humanitarian sector, highlighted below. Some of these perceptions were challenged by the evidence collected, while others were confirmed and pointed to areas requiring further work.

1. ***Buying more sustainable goods and services is possible in an emergency context***

Despite the difficult local context caused by the regional war, local actors and suppliers welcomed the project and were motivated to participate. At a time when the country's economy is struggling, the project was seen as a welcome opportunity to support local businesses. Although the local situation could have compromised the project's success, there was **ultimately positive momentum** among stakeholders.

In addition, the volume of data collected from local actors was unexpectedly high, a clear sign of lasting interest in sustainable procurement among humanitarian organisations and suppliers, even in times of crisis. Data collection combined 19 item-specific questionnaires sent to over 100 suppliers (226 questionnaires sent, 60 completed, a 26.5% response rate), 23 supplier visits in Lebanon between May and August 2026, plus one visit in Türkiye, and 2 in-person workshops.

The project also showed that local market development, through support to incubators and SMEs, allows them to keep operating in times of crisis while building long-term capacity. **In addition,** identifying local, sustainable suppliers in advance secures supply chains for the next emergency.

2. ***More sustainable goods and services are not necessarily more expensive***

Contrary to the widespread view that more **sustainable products are almost automatically more expensive, the project findings show that in many instances they were in fact already cheaper than conventional alternatives.**

This is particularly true of reused, refurbished, recycled or longer-lasting products (such as textiles-based items, reusable hygiene products, sheep-wool blankets, refurbished computers and printers, some soaps), **that were offered at a lower or** an **equivalent price by local producers / suppliers in Lebanon**.

It is important to highlight that comparing purchase prices alone can be misleading. For some durable and more complex items, when the product lifespan and other operational

costs are taken into account, the full cost of sustainable alternatives along the whole life cycle is in many cases lower (see TCO part page 5).

3. ***Local and sustainable solutions exist – but organisations need to look out for them***

The pilot identified **at least one sustainable or locally produced alternative solution for 20 of the 25 items, such as** sheep-wool blankets, recycled-plastic emergency latrines, reusable hygiene products and diapers, textiles and T-shirts made from production surplus ("deadstock"), refurbished computers and printers with warranty. This finding points out less to an absence of solutions than to an **awareness and market intelligence gap**. This highlights the importance of strengthening market knowledge and supplier mapping as part of sustainable procurement processes.

Sustainable products also come with additional benefits beyond procurement alone: waste reduction (in particular in the case of reusable alternatives), better waste management, reduced wastewater toxicity (in the case of sustainable biodegradable soap, shampoo, and cleaning products), reduced transport volumes or frequency.

4. ***Small local suppliers may be able to meet the needs of humanitarian organisations – but procurement approaches need to be adapted in certain cases***

Some of the suppliers identified through the pilot may currently have limited production capacity or may not yet be able to meet the volume, consistency, or logistical requirements of humanitarian organisations.

However, this also raises questions about how procurement needs and tenders are designed. Rather than considering supplier capacity as a fixed limitation, there may be opportunities to **adapt procurement approaches**, for example through **smaller-scale tenders, phased purchasing, framework agreements, appropriate lotting**, allowing small sustainable suppliers to **bid for partial quantities**, or enabling multi-supplier awards to reach the volumes required.

At the same time, some suppliers indicated that higher volumes would decrease the purchasing price. **Pooling volumes** and improved cooperation between organisations would make it possible to reach viable order sizes.

The next phase of the project should therefore focus on supplier qualification and capacity building, while also exploring how humanitarian organisations can better anticipate and adapt their procurement requirements. This might also significantly increase demand and visibility for eligible local sustainable suppliers, allowing them to expand their production capacity in a shorter time.

5. ***Certification requirements need to be adapted to the realities of local markets***

The pilot highlighted a gap between **existing certification requirements and the realities of local markets**. In contexts where governments do not provide incentives or enabling frameworks for green businesses, obtaining certain certifications can be costly, difficult, or simply not feasible for smaller suppliers. **Procurement requirements and technical specifications therefore need to be carefully adapted to the market context**. It's important to do this so as not to discourage humanitarian organisations from seeking alternatives that aren't available in their market.

This does not mean lowering standards, but rather clearly defining what is actually required and which certifications are genuinely relevant to demonstrate compliance or environmental performance. Alternative ways of demonstrating compliance with quality or environmental requirements may also be possible depending on the product; such justification or demonstration criteria could be separately included in the procurement without necessarily needing a certification.

6. Sustainable procurement requires the involvement of the entire ecosystem

Suppliers need to be supported in their journey towards more sustainable products. It requires the involvement of the entire ecosystem to make meaningful progress: suppliers, programme and logistics teams of humanitarian organisations, retailers, clusters/sectors, all have a role to play.

This is also an area where hulo can play a role in supporting the ecosystem, **helping bridge the gap** between humanitarian demand and supplier capacity rather than placing the responsibility entirely on one side.

7. Structural and operational barriers need to be overcome to scale up local sustainable procurement

At the same time, the pilot confirmed several structural and operational barriers. These should not be seen as reasons to postpone action, but rather as clear areas where further work is needed. These findings therefore provide a concrete basis for Phase 2, with a focus on the gaps identified through the pilot, including:

- Supplier qualification and validation;
- Supplier capacity building and support;
- Improved market assessment and supplier mapping;
- Adaptation of program design;
- Adaptation of tendering approaches;
- Adaptation of technical specifications;
- Tools to compare costs, including Total Cost of Ownership;
- Stronger engagement between the humanitarian and sustainable supply ecosystem including building reseller engagement;
- Exploration of appropriate incentives and enabling mechanisms for sustainable businesses.

Overall, the pilot **helped challenge some of the preconceived ideas surrounding sustainable procurement in the humanitarian sector**. Several assumptions were not supported by the evidence collected, which is encouraging and demonstrates that sustainable procurement is already possible, including in a challenging emergency context.

The pilot demonstrates that **the question is no longer simply whether sustainable procurement is possible, but how to make it more accessible, scalable, and systematically integrated into humanitarian procurement practices**.

7. RECOMMENDATIONS FOR IMPLEMENTATION

The project highlights the need to act at two complementary levels:

Operational and local: identify suppliers, develop product-level technical data, and provide actionable price comparisons for country-level programme and procurement teams. Without this field market level, sustainable procurement cannot translate into practice.

- **Pre-qualifing and supporting local sustainable suppliers**: training and awareness-raising on humanitarian requirements along with the organisation or in-person meetings between humanitarian organisations and sustainable suppliers, providing samples where possible, to trial, improve and build trust.
- **Connect local sustainable suppliers with distributors or aggregators** or help them group together to offer joint kits.
- **Involve programme teams, retailers, donors and clusters from the outset**: not only procurement functions.
- **Conduct formal cost comparisons** and reason in terms of total cost of ownership rather than purchase price alone.
- **Develop technical specifications adapted to the local context**.
- **Strengthen coordination between NGOs and clusters**, to pool demand and share supplier intelligence.
- Revise procurement policies to balance **quality, environmental sustainability, social impact and long-term value** beyond price alone, factoring in total cost of ownership for high-value products. **Quantify and document the use of these solutions by humanitarian organisations** to build an evidence base that supports and reinforces these recommendations over time.

The methodology is transferable, but the solutions themselves are necessarily market specific. Each country requires its own market assessment, supplier mapping, and analysis of local constraints.

Structural and global: align organisational policies, global frameworks and funding practices so that field teams are enabled, rather than constrained, in choosing sustainable local options.

- **Revise HQ procurement policies** to include sustainability criteria and TCO, to allow second-hand, refurbished and deadstock products where quality and safety requirements are met.
- **Integrate sustainability criteria (Environmental, Social and Governance: ESG) into global framework agreements**, with provisions such as local lots that allow country teams to buy high-performing local alternatives.
- **Harmonise sustainability standards and assessment approaches** across organisations, including shared technical specifications and recognised alternatives to certification.
- **Engage donors and clusters** to recognise TCO-based decisions, additional pilots and market assessments, and integrate sustainable alternatives into standard item lists.
- **Build internal capacity** through staff training and indicators to monitor progress.

These two levels must be addressed in **synergy**. A sustainable and competitive product in Lebanon may not be suitable for a global framework agreement designed around different geographies, volumes, or criteria. Conversely, strong global frameworks can overlook high-performing local alternatives. **Bridging these two levels is therefore essential to make sustainable procurement both locally relevant and globally scalable**.

7. CONCLUSIONS

This pilot demonstrates that practical, locally available sustainable solutions already exist in Lebanon. The remaining barriers: awareness, cost perceptions, supplier capacity, and limited enabling frameworks are real but can be addressed, and for some products they can be relatively easy to address. The strong mobilisation of humanitarian organisations and suppliers, despite a challenging regional context, confirms a shared willingness to move this agenda forward.

The pilot is therefore a first step towards a stronger community of practice and a lasting transformation of humanitarian procurement markets, in Lebanon and potentially beyond.

8. APPENDICES – PROJECT DOCUMENTS

The following documents are available and constitute the detailed sources for this report:

- The 10 sustainable factsheets
- Workshop reports 1 & 2
- Appendix 1 - Price comparison & environmental analysis methodologies
- Appendix 2 – Overview of identified alternatives