

MANAGING PACKAGING WASTE SUSTAINABLY – LESSONS FROM HUMANITARIAN ORGANIZATIONS

PALLADIUM/Foreign, Commonwealth and Development Office -
Reducing single use plastics as much as possible, leaving only essential,
100% recycled, and 100% recyclable plastic behind

INTRODUCTION

The United Kingdom (UK) aid-funded Humanitarian and Stabilisation Operations Team (HSOT) provides the UK government with capacity and specialist expertise to support effective responses to sudden-onset disasters, crises, and complex emergencies around the world. HSOT delivers this support as part of the Humanitarian Emergency Response Operations and Stabilisation (HEROS) Programme, which is funded by UK aid from the Foreign, Commonwealth and Development Office (FCDO) and managed by global impact firm Palladium. HSOT has been committed to increasing the environmental sustainability of its services for a number of years. Since 2019, a significant focus has been placed on reducing the environmental footprint of the packaging of aid items, and a number of measures have been taken to reduce the amount of plastics brought into recipient countries.



Figure 1. Palladium's Kitchen Set before and after the Change of Specifications

THE APPROACH

After an initial assessment of the environmental impact of HSOT's aid activities, plastic packaging became a priority concern for the team. From the beginning, HSOT involved suppliers of non-food items (NFIs), inviting these suppliers to take stock of their practices and identify what improvements could be made. The approach was three-fold:

- Eliminating single-use plastic packaging from primary packaging for commodities where possible.
- Replacing plastic packaging with more sustainable options.
- Ensuring that residual¹ single-use plastics are essential, 100% recycled, and 100% recyclable.

ELIMINATING SINGLE-USE PLASTIC PACKAGING FROM PRIMARY PACKAGING FOR COMMODITIES WHERE POSSIBLE

Eliminating unnecessary plastic packaging and—where this packaging was still deemed necessary—replacing it with more sustainable materials, was a natural first step. This aimed at reducing the volume of single-use plastics ending up in affected communities, where open air burning or uncontrolled disposal can be common practices given the lack of adequate management systems.

As a result of discussions and negotiations with suppliers, **5 out of 11 items procured by Palladium on behalf of FCDO are now received without primary and secondary plastic packaging. These items include dignity kits, solar lamps, and kitchen sets**, and changes have now been embedded in specifications and purchase orders (see Palladium’s packaging specifications [here](#)). Since September 2022, it is estimated that the equivalent of **67,200 plastic bags and 62,000 plastic wrappers have been avoided** as a result of these changes.

Furthermore, the following packaging items have been excluded from Palladium/FCDO specifications, and they are working to increase the number of NFIs that are actively procured without these items.

- Polyethylene (PE) plastic bags
- Bubble wrap
- Degradable/compostable plastics
- Plastic cable ties
- Acrylic packing tape
- Any single-use plastic packaging

Additionally, laminated cardboard and non-ecological inks have been excluded.

REPLACING PLASTIC PACKAGING WITH MORE SUSTAINABLE OPTIONS

Where a piece of packaging was seen as essential to protect the item it contained, plastic was replaced with cardboard—this change was included in the specifications for various items. The following alternative packaging items are now recommended.

- Cloth or other non-polymer biodegradable bags (i.e., fabric)
- Paper bubble wrap
- Solid board edge protection

¹ Residual packaging is packaging that cannot be removed.

- Paper tape
- String or metal/paper ties
- Paper void fill
- Cardboard layer pads



Figure 2. Alternative Packaging Items

Solid Board Edge
Protection

Paper Bubble
Wrap

Paper Packaging Tape

Paper Void Fill

Cardboard Layer
Pads

ENSURING THAT RESIDUAL SINGLE-USE PLASTICS ARE ESSENTIAL, 100% RECYCLED, AND 100% RECYCLABLE

For the remaining single-use plastic packaging that could not be replaced or eliminated, Palladium regularly reviews this issue with its suppliers that such packaging continues to be essential. For example, packaging remains essential when it provides waterproof protection for core relief items, preventing water damage.

Additionally, Palladium requires suppliers to provide **100% recycled** plastic packaging where possible—this is included in its specifications. Recognizing that such packaging is not always possible for suppliers (because of non-availability) a **minimum of 30% recycled plastic packaging material is nevertheless accepted.**

Finally, Palladium also requires that the packaging is **made of 100% recyclable material.** Whether opportunities for recycling exist in the field or not, this requirement means that Palladium provides packaging that is theoretically recyclable (e.g., mono material, not laminated).

To facilitate the recycling process, Palladium now requires its suppliers to provide Resin Identification Codes (RICs) so that packaging waste can be identified, collected, separated, and stored appropriately by implementing partners, and potentially sent for recycling. This need for suppliers to add RICs is also embedded in item specifications. In some instances, the RICs are even molded into the items (this is the case for lifesaver cubes, buckets, and Jerrycans, for example). It is hoped that this new addition to the specification will help improve recycling downstream because the type of materials will be more easily identifiable, facilitating a planned reverse-logistics pilot.

PET	HDPE	PVC	LDPE	PP	PS	OTHER
POLYETHYLENE TEREPHTHALATE	HIGH-DENSITY POLYETHYLENE	POLYVINYL CHLORIDE	LOW-DENSITY POLYETHYLENE	POLYPROPYLENE	POLYSTYRENE	OTHER
WATER BOTTLES; JARS; CAPS	SHAMPOO BOTTLES; GROCECY BAGS	CLEANING PRODUCTS; SHEETINGS	BREAD BAGS; PLASTIC FILMS	YOGURT CUPS; STRAWS; HANGERS	TAKE-AWAY AND HARD PACKAGING; TOYS	BABY BOTTLES; NYLON; CDS

Figure 3: Examples of Resin Identification Codes

In addition, suppliers are requested to communicate the volumes (in kilograms) and types of plastic packaging (polypropylene [PP], low-density polyethylene [LDPE], etc.) in the item delivered. This practice has helped Palladium quantify the amount/volumes of packaging generated by its operations. In turn, sharing that information with its implementing partners and making this information visible can feed into partners' efforts to develop partnerships with recyclers in the field. All of these changes have largely been implemented at no added cost.

CHALLENGES

MINIMUM ORDER QUANTITIES

Influencing suppliers' practices was sometimes a challenge for Palladium, particularly for items that were ordered in small quantities. Indeed, suppliers are often not in a position to adjust their processes (e.g., changing from plastic to paper tape) only for one buyer (a humanitarian organization), particularly if that buyer is ordering a small number of items.

Palladium did not always have leeway to influence suppliers compared to other humanitarian agencies and has worked with these agencies to help them adjust their packaging. **This practice highlights the potential benefits of harmonizing humanitarian organizations' specifications, to have additional leverage on suppliers and ensure that changes benefit a greater number of buyers.**

SOLUTIONS FOR TERTIARY PACKAGING

Palladium's experience illustrates once more the difficulty for the sector to find sustainable alternatives for tertiary packaging because of the following reasons.

- Plastic wrap is very effective in protecting aid items (for example, waterproofing them or helping to prevent them moving around on pallets), and so it is difficult to find alternatives that are as effective.
- More sustainable alternatives have not yet been proven to be successful on a wider scale.

- This packaging is often selected and managed by external stakeholders (e.g., transporters) over which humanitarian agencies have less influence.

While increasing efforts are being made by the humanitarian community and its suppliers to remove primary and secondary (plastic) packaging, efforts should also focus on finding collective solutions for tertiary packaging and finding ways to influence transporters, despite the fewer quantities generated.²

LESSONS LEARNED

Palladium has learned the following from its efforts to manage packaging waste sustainably.

- Perform inspections.
- Have clear and precise specifications.
- Use the legislative framework as an influencing tool.

PERFORM INSPECTIONS

Specifications are important but not enough—inspection is key. Palladium’s experience has shown that, while integrating environmental sustainability into specifications when ordering items is essential—as it gives a clear signal to suppliers that this is high on their list of priorities—this alone is not enough. **Checking items upon reception and making sure delivered items are compliant with specifications is equally important.** One of the lessons that Palladium has learned is if the requested changes are not embedded in suppliers’ practices, suppliers will continue to do what they have always done.

Being strict with suppliers, making sure that they are actually following specifications, and taking action if they are not, is crucial. Nevertheless, organizations must have the capacity and the resources in house to run such checks.

HAVE CLEAR AND PRECISE SPECIFICATIONS

Another key lesson learned is the importance of developing specifications that **are clearly worded and precise. Clear wording would help limit suppliers’ ability to interpret specifications in a more flexible way** than what was intended by the purchaser (i.e., allowing for some “wiggle room”). For instance, phrases such as “where or when possible” or “if alternatives exist” should be avoided because they are open to interpretation. Rather, clear instructions such as “use 100% recyclable” should be used. If suppliers cannot meet the required standard, they should be encouraged to communicate and explain why; this can trigger positive discussions between the buyer and supplier. Unclear specifications are likely to be ignored, particularly when they require changes or additional efforts to be made.

² An analysis of a purchase of coverage kits conducted by Palladium identified that tertiary packaging represented only 10% of the total packaging for this specific procurement instance. This indicates that tertiary packaging may represent a small proportion of total packaging waste generated when compared to a prereduction baseline.

USE THE LEGISLATIVE FRAMEWORK AS AN INFLUENCING TOOL

Palladium’s experience shows once more that **leaning on existing legislation can help influence suppliers** and obtain their buy-in. When changing its specifications, Palladium drew suppliers’ attention to recent UK legislation on plastic imports (the Plastic Packaging Tax), whereby Palladium/FCDO risk becoming liable for additional taxation if the items they imported into the UK failed to comply with guidance on minimum recycled content. This also provided impetus for suppliers (located outside of the UK) to comply with Palladium’s specifications. Palladium was also able to evoke the existence of plastic legislation in the countries targeted by its humanitarian assistance, to influence suppliers.

CONCLUSIONS

Palladium’s experience in working with its suppliers to include more sustainable practices has not been a linear process. It has involved continuous discussions with suppliers, adjusting processes, and finding solutions adapted to each supplier and each commodity, especially with smaller and/or local suppliers. While some suppliers are ahead of humanitarian agencies in their sustainability journey, others need more push and sometimes support in helping them embed sustainability into their practices. In these cases, bringing a critical perspective to what suppliers are suggesting is key to making sure that solutions are actually more environmentally sustainable and not green washing. This, nevertheless, implies that humanitarian agencies have the capacity in house to bring this perspective, which reinforces the case for greater dedicated environmental resources in the sector.



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