

# JOINT INITIATIVE FOR SUSTAINABLE HUMANITARIAN ASSISTANCE PACKAGING WASTE MANAGEMENT

## Episode 5: “Packaging Matters” Webinar Series

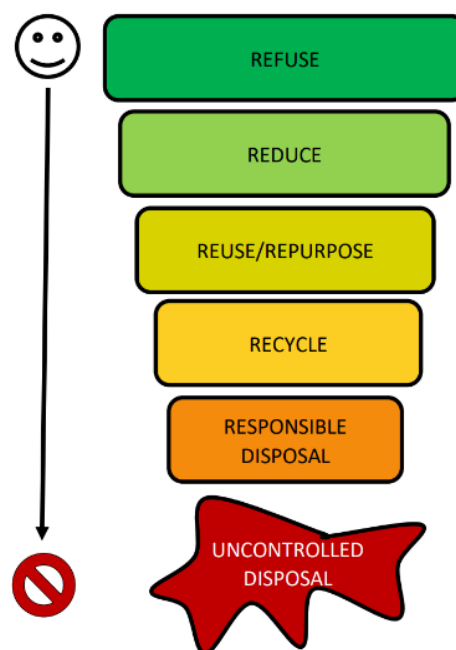
### Repurposing of Humanitarian Assistance Packaging and Plastic “Waste”: What’s the story?

Thursday 21st September 2023

**Aim:** The webinar provided organizations with the opportunity to share experiences, challenges, risks, and solutions relating to the repurposing of humanitarian assistance packaging /plastic “waste”.

#### I. Introduction: New JI resources

The Joint Initiative, in collaboration with the World Food Programme, has developed a set of guidelines aimed at aiding humanitarian organizations in the effective implementation of packaging waste management strategies within humanitarian operations. Aligned with the waste-management hierarchy, this document underscores the significance of minimizing packaging materials and furnishes comprehensive directives to ensure the responsible handling of packaging through practices such as reuse, repurposing, recycling, and proper disposal. Moreover, it encompasses a structured decision-making framework to support humanitarian professionals in the selection of packaging waste management strategies based on considerations of both packaging material composition and the specific contextual nuances of the country. Additionally, the document draws attention to certain reuse, repurposing, and recycling approaches that may inadvertently yield adverse consequences for both human health and the environment. **See new JI resource: [Guidelines for Packaging Waste Management in Humanitarian Operations](#)**



Furthermore, the Joint Initiative and the World Food Programme have developed a comprehensive compilation of 14 initiatives implemented by humanitarian organizations and aimed at effectively managing packaging waste. These initiatives are organized based on the specific type of packaging material they handle. Each initiative is succinctly summarized, offering essential details about the lead organization, project duration, geographical location, operational processes, resulting end-products, encountered challenges, and the designated contact person. Where applicable, additional information is provided regarding the machinery employed and potential environmental risks.

**See new JI resource: [Options for Humanitarian Packaging Reuse, Repurposing, and Recycling](#)**

#### II. A snapshot of projects where packaging waste is being repurposed

**Upcycling – Transforming waste into resources** (WFP in collaboration with Cordaid, Cox’s Bazar, Bangladesh).

Conditions in the Cox’s Bazar refugee camps are crowded, with limited space for over 960,000<sup>1</sup> refugees, meaning that efficient and sustainable waste management is all the more important. Whilst humanitarian

<sup>1</sup> UNHCR, August 2023

actors are providing vital support for refugees (for example over 325,000 children received regular nutrition and school feeding support from WFP in June 2023) the resulting packaging waste is significant<sup>2</sup> and local waste disposal options are limited. Under the coordination of the WASH sector, international humanitarian organisations have been working together to improve camp waste management since 2017.

This project reduces packaging waste from food products such as Super Cereal, ready-to-use therapeutic food, ready-to-use supplementary food and fortified biscuits by repurposing it into useful products. It also provides Rohingya refugees with skills training employment opportunities thereby contributing to their self-sufficiency.

When mothers and children come to nutrition centres to collect food assistance, they are requested to bring back used packaging. Rohingya refugees collect the used packaging from nutrition centres and bring this back to training centres. The collected materials are sorted, washed (using mild detergent and anti-bacterial liquids mixed with water) and dried (with cotton cloths and then air-dried). They are then cut and heat pressed, with careful monitoring of the temperature of the materials to avoid toxic emissions from heating plastics, and material burn. Finally, the materials are then sewn and crafted into various products including totes bags, wallets, school bags, shopping bags, trash bins, baskets, pen holders, floor mats, and various handicrafts. The Rohingya refugees participating in this project receive incentives for taking part in the project (they are prohibited by law from engaging in formal employment, and therefore cannot receive a salary). Creating demand in the local market for these repurposed products is, however, challenging, and WFP is exploring the option of accessing global markets through private-sector engagement.

Initially funded by the SPRINT programme under WFP's Innovation Accelerator in 2020, the project was scaled up to cover the entire camp for waste collection in 2023. In 2022, more than 760,000 pieces of waste were collected and repurposed into 8,300 products. Whilst this project has not yet been replicated outside of the camp, it is in theory possible to do this.

### **Project Play (UNICEF, Uganda, Sierra Leone, and Pakistan)**

Each year, UNICEF delivers thousands of tons of ready-to-use therapeutic food (RUTF) in sachets which are packed in cardboard boxes. In 2022 alone, UNICEF ordered 120,000 MT of RUTF, equivalent to 8.7 million cardboard boxes worldwide. Inspired by a supplier initiative, UNICEF prints and pre-cuts toys in corrugated cardboard boxes, to enable these to be repurposed as children's toys (without the need for scissors) thereby extending the useful life of the cardboard boxes. These toys stimulate cognitive, motor, and social skills in children aged 6 months to 5 years - beneficiaries of UNICEF's programs - and help to improve early child development.

Cardboard boxes must maintain structural integrity and hence not be wet, dirty, or damaged either on the exterior or interior. It must also be possible for suppliers of cardboard boxes to opt-in at no extra/marginal cost. In order to mitigate any potential health / environmental risks, unbleached cardboard, non-toxic glue and organic inks must be used because the cardboard toys will be handled by babies and young children.

Project Play is being implemented to build "proof of concept" in emergency settings in three countries: Pakistan, Uganda, and Sierra Leone. If scaled up this project has the potential to reach up to 7.3 million children per year<sup>3</sup>.

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<sup>2</sup> Around 600,000 empty nutrition packets are generated over a 4-month period (WFP)

<sup>3</sup> This is equivalent to the number of children who received UNICEF-supported malnutrition treatment and care in 2022.

### III. The benefits and risks of using “waste” plastic in construction materials

As well as projects to repurpose waste from humanitarian assistance, an increasing number of initiatives in humanitarian contexts and the Global South aim at converting plastic waste into construction materials. Examples include “plastic roads”, “plastic walls” or “eco-bricks”. [Scientific research](#) conducted by the Plastic Pollution Coalition explored the consequences of such projects, where people are put in close contact with plastics and other types of single-use materials. Interestingly, some of the projects analysed in this research were proposed by petrochemical and plastic companies.

Whilst such projects help to prolong the useful life of materials, they are not without consequences for human and environmental health. For example, the use of tires in “housing” projects brings risks, as tires can contain benzene and heavy metals such as lead, which are toxic, or polycyclic aromatic hydrocarbons and other carcinogens. In addition, repurposed materials build up, and act as vectors for contaminants and diseases and people are exposed to harmful microplastics when plastic waste is used as insulation, or for walls or bricks in housing.

Furthermore, these projects do not offer circular solutions as the waste, once it is incorporated into construction materials, is not used again (contrary, for example, to how a plastic bottle could be reused and then recycled many times over and for as long as possible). Finally, projects of this type detract from the crucial issue, which is the need to reduce the amount of plastic – in particular, single-use plastic – in use, thereby keeping plastic waste out of the environment. They also create the impression that there is a market or even a need for this kind of waste, thereby encouraging further plastic use. As illustrated by the waste management hierarchy, efforts should focus first and foremost on reducing waste (prevention).

### IV. Key points from presentations and Q&A sessions

#### Cross-cutting messages

- Repurposing efforts should systematically be coupled with waste reduction by changing practices and in particular, a move away from single-use materials. Examples include engaging in reuse, refill, and regenerative aid practices (reusable wooden crates/palettes/containers over cardboard, plastic); purification/storage of local water supplies when possible, and food assistance delivered in reusable containers/bags rather than plastic/paper.
- An important way to reduce waste is through circularity. The WREC Project<sup>4</sup> defines the circular economy as one which “...aims to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle at the end of their use, while minimizing the generation of waste and negative impacts on ecosystems such as GHG emissions and pollution”.<sup>5</sup> Reusing and repurposing initiatives should therefore aim at keeping the value of materials for as long as possible (therefore avoiding options which are for single-use items)
- Humanitarian organizations should engage donors in a dialogue about the cost of waste management in humanitarian settings, and advocate for these costs to be considered eligible for funding as part of full cost recovery. USAID, for example, has authorization to use Bureau for Humanitarian Assistance funding for waste management costs.
- Stronger multi-stakeholder coordination on the issue of waste management in humanitarian settings is required, recognizing that authorities (and national legislations), humanitarian actors, local populations, the private sector and donors all have a role to play in the reduction and sustainable management of waste.

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<sup>4</sup> Environmental Sustainability in Humanitarian Logistics (see <https://logcluster.org/blog/wrec-project>)

<sup>5</sup> <https://logcluster.org/document/wrec-quick-guide-circular-economy-introductory-guide>

## Repurposing projects

- Ensuring the financial autonomy and sustainability of projects that aim to repurpose waste may be challenging. Collecting, sorting, cleaning, drying and transforming waste has costs, and may be difficult to achieve without specific funding.
- It may be challenging to sell the repurposed “waste” in humanitarian contexts, and creating a market for these materials, as well as private sector engagement, is key.
- Projects which are embedded in local communities are likely to be more successful due to their use of local technology and lower operating costs.
- Projects should identify and mitigate any environmental and health risks or negative social impacts. By engaging with local communities, humanitarian actors can avoid “imposing” potentially harmful repurposing projects and rather, identify sustainable waste solutions together.

## Resources / where to go to find out more

- The WREC project will organize an information session in due course, focused on solutions for responsible management of waste that cannot be minimized (e.g. proper disposal and waste to energy).
- [Guidelines for Packaging Waste Management in Humanitarian Operations](#): This document aims to help humanitarian organizations implement sound packaging waste-management strategies and emphasize the negative effects of improper packaging waste-management practices on human health and the environment.
- [Options for Humanitarian Packaging Reuse, Repurposing, and Recycling](#): This document aims to share best practices and innovations in packaging waste management in humanitarian operations. It lists initiatives where humanitarian assistance packaging is being reused, repurposed or recycled. Part of the solution is to look at waste differently, avoiding the paradox of “wasting waste” by keeping these materials in circulation as long as possible.



This document was prepared by the Joint Initiative’s secretariat as part of its ongoing commitment to promoting more responsible and sustainable packaging practices. This document does not purport to reflect the opinions or views of the Joint Initiative partners.