**WREC Global Information Session on Reverse Logistics September 2023**
(September 27, 2023 11:00-12:30 CEST)

Note for the record

**Speakers:** Michela Balzino (WREC, Environmental Specialist Circular Economy), Gyöngyi Kovács (Hanken School of Economics), Bassel Akkad (WREC, Environmental Specialist Green Procurement), Marta Kucharski (WREC, Environmental Specialist Waste Management), Katherine Ely (WREC, Project Manager), Francesca Insabato (WREC, Information Management Officer)

**Number of participants: 80**
**Organizations:** Action Contre la Faim (ACF), Avans University, Deutsche Welthungerhilfe, DG ECHO, Foreign Commonwealth and Development Office-UK (FCDO), Global Logistics Cluster, Handicap International, Humedica International Aid, HUMLOG Institute (Hanken School of Economics), Plan International, International Federation of Red Cross and Red Crescent Societies (IFRC), International Organization for Migration (IOM), Kenya Institute of Supplies Management, Malteser International, MEDAIR, Médecins sans Frontières (MSF), Norwegian Church Aid (NCA), Oxfam International, Palladium, Polish Humanitarian Action, Medical Export Group, World Food Programme (WFP)

**Recording:** WREC Reverse Logistics Global Information Session

## Agenda

1. **Introduction**
2. **WREC Approach: Reverse logistics**
3. **Success stories (Hanken School of Economics)**
4. **Breakout groups: reverse logistics potential within your organizations**
5. **How to apply reverse logistics to supply chain steps: procurement & end-of-life**
6. **Additional comments**

## 1. Introduction

The Waste Management and Measuring, Reverse Logistics, Environmentally Sustainable Procurement and Transport, and Circular Economy (WREC) Project is led by the Global Logistics Cluster in collaboration with a coalition of partner organizations including Danish Refugee Council, IFRC, Save the Children International, and WFP. The WREC Project aims **to assist logistics practitioners in reducing their environmental footprint and, ultimately, encouraging the sustained adoption of best environmental practices across the humanitarian logistics and supply chain community**. As a part of this commitment, the WREC Project coordinates various global information sessions, coordination groups, and forums as spaces for sharing best practices, discussing challenges, and fostering collaboration among humanitarian logistics stakeholders. Through these initiatives, the WREC Project endeavors to create a community that learns from one another and collectively works towards minimizing the environmental impact of humanitarian operations: reverse logistics represents an often misunderstood concept with activities that humanitarians can adopt and use to reduce the environmental impacts of their supply chains.

## 2. WREC Approach: Reverse Logistics

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| Michela Balzino (WREC Environmental Specialist on Circular Economy) | • **Circular economy** is a **model** of production and consumption which reduces material use and redesigns products and services to be less resource intensive. To be more sustainable, the humanitarian community must strive to adopt a circular economy model that by keeping the same material in the same loop and maintaining the value of the products and materials decreases the negative impacts of humanitarian operations on the environment.<br>• **Reverse logistics** is a supply chain management **process** involving the **movement of materials from the point of consumption back through various steps in the supply chain** with the aim of recapturing value (more information on the WREC approaches available here). This process encompasses activities such as redistribution, resale, repair, recycling, and responsible disposal of materials. By implementing reverse logistics practices, humanitarian supply chains can effectively retain and reintegrate materials into the supply chain in a sustainable manner, thereby reducing waste and resource consumption.<br>• A specific case of reverse logistics is the "return to dispose" process, which comes into play when there are insufficient facilities for the proper disposal of materials or products. In such cases, these |

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| | items are returned to the supply chain flow and redirected to a location with appropriate disposal facilities.<br>• Reverse logistics can be categorized into three key areas:<br>  ○ **Value item recovery:** This involves the refurbishment or remanufacturing of items like laptops and unused tires, enabling their reintroduction into the supply chain for alternative purposes.<br>  ○ **Treatment of faulty or damaged items:** Items such as food, medicines, and hazardous waste that cannot be adequately disposed of are returned to the supplier for proper treatment within the logistics flow.<br>  ○ **Handling of no longer needed items that are not damaged:** This category includes items like vehicles located in remote areas, office equipment, and machinery, which can be brought back to the main office after missions for potential reuse or redistribution.<br>• Reverse logistics schemes can bring multiple benefits including the reduction of waste volumes, extension of product lifecycles, long-term financial benefits, enhanced reputation, support for local recycling markets, and the promotion of awareness among workers and the community.<br>• However, there are challenges which encompass the need to redefine existing logistics schemes, initial investments, potential increases in greenhouse gas emissions, and the necessity for a shift in mindset among stakeholders. |

## 3. Success stories from the field (Hanken School of Economics)

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| Gyöngyi Kovács (Erkko Professor in Humanitarian Logistics, Hanken School of Economics) | • Different terms are being used by field-based practitioners to define the concept of 'reverse logistics'. Notably, some organizations are already engaging in returning products, including expired medical and food items, as well as addressing the handling of damaged goods. Moreover, humanitarian organizations are actively involved in secondary markets within various countries, further emphasizing the need for effective reverse logistics strategies. There are situations in disaster-affected countries where materials can still be collected, generating income out of them instead of clogging up supply chains. An example would be associated with the reuse or recycle of textiles and garments.<br>• Enhancing procurement practices to determine **what should be delivered and what deliveries can be avoided** represents a great opportunity for humanitarians to reduce waste**.** Careful consideration should be given to the selection of materials, suppliers, and whether durable products are the most suitable choices for specific contexts.<br>• Embracing a circular economy approach necessitates a **focus on the procurement step and adherence to the 10Rs**: reuse, rethink, reduce, reuse, repair, refurbish, remanufacture, repurpose, recycle, and recover.<br>• **Challenges:**<br>  ○ When returned items do not come back in their original packaging or shape, leading to logistical complexities, especially in disaster-stricken areas where demand surges can occur suddenly. You cannot modularly put it in a truck, needing to find different materials handling equipment.<br>  ○ Integrating humanitarian organizations into existing reverse logistics systems within a country can be challenging. Organizations must assess how to collaborate with local collection systems for specific materials or items and whether it is necessary to establish new systems with their accompanying processes.<br>  ○ One of the main reasons why companies don't engage in reverse logistics activities is the lack of extended producer responsibility, according to literature. However, importers often bear the same responsibility as producers.<br>• A recent project called 'WORM' will look into waste management and reverse logistics, bringing together academia and humanitarians. The consortium will look into bio-plastics and their potential application – recognizing the existence of different bio-plastics and the careful need to analyze the impact of such materials. |

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| | • **Opportunities:**<br>  ○ Valuable lessons can be gleaned from cyclical operations that necessitate annual interventions and from long-term operations in various countries. Practical examples were provided, such as the Danish Refugee Council's collaboration with Mr. Green Africa and the World Food Programme's involvement in material recovery and sanitary landfill operations in Cox's Bazar.<br>  ○ Local IT suppliers may be preferred to facilitate IT equipment repairs and maintenance, underscoring the importance of local partnerships in this regard. Establishing a dialogue with suppliers and assessing local market capacity can help humanitarians accessing refurbishing services without the need to ship used materials out of country for maintenance/repair. |

## 4. Breakout groups: reverse logistics potential within your organizations

**The participants were divided in breakout rooms to brainstorm on the following questions:**

**Q1: Does your organization already implement reverse logistics schemes?**
**Q2: Which reverse logistics category your organization is implementing or could implement?**
**Q3: Which tools do you need from the WREC to boost reverse logistics practices or raise awareness on the subject?**

| Room | Insights |
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| Breakout room 1: 18 participants | An encouraging 50% of participants in this breakout room were already actively engaged in implementing reverse logistics schemes, demonstrating a widespread recognition of its importance within the humanitarian sector. However, significant challenges were highlighted, including: **concerns related to cost, the need for stakeholder training, and the reporting requirements of donors**. Participants stressed that when considering ways to reduce the environmental impact of humanitarian operations, special attention should be given to the rapid gains achievable through reverse logistics for IT equipment. Furthermore, the consensus was that **integrating reverse logistics considerations during the procurement phase is crucial for success**. |
| Breakout room 2: 18 participants | In this group, most participants indicated that their respective organizations had not yet fully embraced reverse logistics. However, it was notable that some were, in fact, implementing similar schemes under different terminology. The predominant focus of these reverse logistics initiatives was on IT laptops, with a strong emphasis on **reusing and repairing** these items instead of discarding them (value recovery). Many organizations also disclosed ongoing efforts to develop global policies that could be subsequently applied at the field level in later phases. Amongst the tools that the participants deem useful to implement reverse logistics schemes, there are: **recycling center maps for different countries and a guidebook on value recovery strategies for different materials with some good practices.** |
| Breakout room 3: 20 participants | In this group, most of the organizations indicated that they are actively involved in implementing reverse logistics schemes. They shared several illustrative examples, spanning various categories. These included discussions about the return of items that were no longer needed, either after usage or following several years in storage, with subsequent actions including **resale, resolution, or redistribution**. Participants also highlighted that, in some locations, it was possible to **return accumulated packaging materials to suppliers for reuse**. |
| Breakout room 4: 17 participants | The participants indicated a lower rate of reverse logistics scheme implementation compared to other groups. Nonetheless, some organizations, particularly those with a robust regional presence, have been successfully employing item recovery practices for quite some time. These organizations have well-established mechanisms in place and recognize the **untapped potential of items that are no longer needed but remain undamaged**. Notably, items like old laptops and high value items within the supply chain were identified as assets that should not be prematurely disposed. |

## 5. How to apply reverse logistics to supply chain steps

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The WREC Environmental Specialists on Green Procurement and Waste Management highlighted how to apply reverse logistics within their respective supply chain steps. Within the area of green procurement, it was emphasized as critical not to neglect the planning phase for effective reverse logistics integration. Collaboration among internal stakeholders, careful supplier selection, and the inclusion of reverse logistics criteria in evaluations are key components of successful reverse logistics integration. Within the waste management area, it was further underscored how incorporating reverse logistics into waste management practices can significantly reduce waste generation, contribute to environmental sustainability, and improve overall community health - particularly in regions with limited resources for proper waste disposal.
Below is a summary of the key points from the two presentations:

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| Bassel Akkad (WREC Environmental Specialist on Green Procurement) | • Environmentally sustainable practices should be integrated **in the very beginning of the supply chain planning phase**. This involves specifying needs without excessive detail and allowing room for innovation. Such an approach enhances overall organizational efficiency and prepares humanitarian organizations to tackle challenges associated with reverse logistics, facilitating its smooth implementation post-contract signing.<br>• **Effective planning** necessitates seamless collaboration and communication among internal stakeholders. The absence of such alignment can impede the successful implementation of reverse logistics within the contractual and procurement processes.<br>• **Selecting the right suppliers** is a pivotal step as it defines organizational responsibilities and sets expectations for suppliers. It is crucial for all relevant stakeholders to thoroughly review and capture contract details, recognizing that the contract marks the beginning of field intervention. To embed reverse logistics in the procurement process, organizations must **conduct a market analysis before issuing tenders** to find available options, approaches to engage suppliers, and assessment of supplier capabilities and expertise. It is important to collect information without making any firm commitments on behalf of the organization.<br>• Embedding reverse logistics effectively requires the **inclusion of relevant requirements within tender documents**. Evaluation metrics during the bidding process should incorporate criteria related to reverse logistics. This proactive approach ensures that suppliers' capabilities in this regard are assessed and factored into the selection process.<br>Humanitarian organizations require **diverse technical expertise and a collective effort** to achieve their sustainability goals. |
| Marta Kucharski (WREC Environmental Specialist on Waste Management) | • When considering the **end-of-life** of any item, reverse logistics schemes serve as tools that provide organizations with the capacity to mobilize items on time for reuse, repair, repurposing, relocation, and recycling. Extending the lifespan of these items plays a vital role in mitigating waste generation and harmful waste management practices, especially in low and middle-income countries where most operations take place. Usual practices often involve dumping or burning waste, resulting in harmful consequences for community health. Other methods include collecting and disposing of waste in landfills, which are also environmentally unfriendly.<br>• Transportation generally entails the **generation of fleet waste**, comprising hazardous materials such as used tires, oil, filters, refrigerants, and batteries. This waste should be returned to certified companies for proper treatment, ideally locally, or internationally if no local options are available.<br>• In terms of **warehouse management** and inventory, pallets can be returned to warehouses for reuse, repair, or recycling/repurposing. It may be worthwhile to allocate a small section of the warehouse for pallet repair. Packaging materials like cardboard boxes and plastic film can also be returned to warehouses for reuse or recycling. Damaged, expired, or surplus items such as food, medicines, and machines should be properly managed.<br>• After **distribution or end-of-life,** some relief items, such as solar lamps and mobile phones (considered hazardous waste), can be returned to suppliers for proper repair |

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| | or recycling. Similarly, other packaging materials, whether recyclable or not, can be collected for reuse, repurposing, or recycling.<br>• **During emergencies**, it is crucial to reinforce the collection of food items and materials used during food distribution at distribution points to minimize rapid waste generation.<br>Finally, when waste cannot be recovered, humanitarian organizations should establish links with existing waste management facilities. |

## 6. Additional comments from Participants

1. When there is a disease outbreak, humanitarian organizations are almost always forced to create temporary structures. In this case, reverse logistics schemes, created in collaboration with the local Ministry of Health can bring to see **how to do the decommissioning properly**. After an intervention, the Ministry of Health, needs support from humanitarian organizations to reuse the procedures for future needs. A useful online training on sustainable supply chain management, free of charge, is available on Edx *(Palal Areman, Save the Children).*
2. The European Commission is interested in the topic of creating more **environmentally sustainable supply chains from a donors' perspective**. However, it can be difficult to find other entities also working on the subject of reverse logistics. Moreover, in the WREC Quick Guide on Reverse Logistics, it would be important to mention the issue of cross-border movement of waste and to highlight what has been done, what can be done, and what roadblocks persist. *(Karolina Kalinowska, DG ECHO)*
3. It would be useful if the WREC could share principles of end-of-life tracking/tracing for relief items, such as tarpaulins. (*Alexander Compeer, Environmental Impact Specialist at Avans University)*
4. It is important to involve procurement in emergency responses and preparedness activities to minimize the environmental impact of humanitarian operations. They highlighted that, over the past decade or more, the role of procurement has become increasingly crucial. However, they also stressed the need to distinguish between international-level procurement and the capacity of local quarters or more global levels to consider green logistics versus local procurement. Indeed, **procurement plays a pivotal role** in reducing the environmental footprint of humanitarian responses. There is a need to differentiate between international-level procurement and the capacity of local quarters or more global levels to address green logistics. This distinction arises from the desire to inject resources into local markets effectively. However, procurement, while essential, is just one aspect of the supply chain. **Programmatic aspects must also be considered**, particularly when reverse logistics may not be possible. In his experience, reexporting waste, was only successful twice for costly government assets. The reason is that reexporting becomes complicated due to tax implications and government regulations, limiting its feasibility. A change in mindset is critical, with a greater focus on what can be achieved at the local level rather than importing goods from outside the country. This approach could enhance the effectiveness of green logistics efforts. Finally, humanitarian operations could use leftover items. For example, non-food items (NFIs) like tarpaulin, have a practical value for affected communities. Therefore, humanitarian organizations could consider the usefulness of such items, even if they seem simple or unconventional. *(Julien Marcheix, Global Logistics Cluster)*