INTRODUCTION

The Waste management and measuring, Reverse logistics, Environmentally sustainable procurement and transport, and Circular economy (WREC) project seeks to reduce the adverse environmental consequences of humanitarian logistics through awareness, practical guidance, and real-time environmental expertise. Therefore, the WREC project workstreams (below) need to be approached in a consistent and coherent manner to clearly identify the scope of the project workstreams. The below approaches are *not* intended to be official definitions by any partner organization of the Global Logistics Cluster or the WREC coalition partners, however, are provided to give consistency to the approach and scope of the WREC project. These approaches may change over time and this document will be updated accordingly as needed.
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. The circular economy model aims to maintain the value of products and materials for as long as possible by returning them into the value chain at the end of their use. This is done while minimizing the generation of waste, greenhouse gas emissions, pollution, and the negative impact on ecosystems.

For example:

- Because Circular Economy is a model, all areas of the supply chain can incorporate a circular economy approach, such as:
  - Purchasing re-designed products which have a lower % of plastic materials (if plastic is unavoidable), inks and toxic components – green procurement;
  - Purchase products that can be reused, refurbished/remanufactured (plastic pallets, refurbished/recycled mobile phones, remanufactured computers, etc.) - green procurement;
  - Adopt take-back schemes for products that can be reused, redistribute/resell (plastic pallets, refurbished/recycled mobile phones, remanufactured computers, etc.) - reverse logistics;
  - Sell segregated waste (plastic, cardboard, wood, etc.) to local recycling companies to be recycled or repurposed – waste management;
  - Reduce the consumption of energy and avoidable goods (air conditioning vs. fan, artificial light vs. natural light, hard copies vs. soft copies) - decarbonization.
REVERSE LOGISTICS

Reverse Logistics is a supply chain management process involving the flow of materials from the point of consumption back to any steps of the supply chain (i.e. manufacturing, distribution, etc.) to recapture value, redistribute/resell, or to properly dispose of materials.

In humanitarian contexts reverse logistics should be applied and items back-tracked particularly in the following cases:

• For item value recovery (reuse, refurbish, remanufacture, repurpose, or recycle items);

• When items were found faulty, damaged, or returned due to quality control issues (return to suppliers), or expired (properly dispose);

• When items are no longer needed but are not damaged/faulty and can still be redistributed.

For example:

• Using reusable recycled plastic pallets and returning them to the supplier/transporter for future use;
• Including reverse logistics into contracts with IT providers to return used laptops to the supplier/manufacturer for refurbishment (vs. disposal of e-waste);
• Contract recycling companies in your country to take used or broken tyres from fleet/workshops to be recycled into locally used products (such as flooring, etc.)
• Building into project design the repurposing of used or damaged tyres from your fleet/workshop and creating garden planters, playground equipment, outdoor furniture, etc.
• Taking broken pallets from a warehouse, turned into furniture for the office;
• Redistributing vehicle fleet and assets from an office which is closing to another office or donating to a local partner when it is no longer needed.

https://logcluster.org/wrec/green-logistics
GREEN PROCUREMENT & SUSTAINABLE PROCUREMENT

Sustainable Procurement incorporates Environmental, Social, and Governance (ESG) aspects that are broader in scope than ‘Green Procurement’. The WREC project focuses on the ‘Green Procurement’ aspect, considered as a strategic approach that emphasizes environmental responsibility in purchasing decisions. This approach supports purchasing of goods and services from suppliers that are committed to minimizing environmental impact, particularly in terms of reducing energy consumption and waste generation.

For example:

- Conducting a market survey and inquiring with suppliers as to their approach to environmental sustainability during your market analysis;
- Providing suppliers with information and training on environmental sustainability of products and practices to improve their knowledge and awareness of environmental issues;
- Providing requesting units with information on where to find information on ‘greener’ product specifications, coupled with results from a local market survey as to what is currently available in the local market, to support more informed decision making with regards to product requests to procurement;
- Incorporate recycling into procurement contracts with suppliers who provide options for reusing, refurbishing, or recycling products (such as IT equipment, printers, ink cartridges, office furniture, or vehicles).
**DECARBONIZATION**

*Decarbonization* is the process by which organizations or other entities aim to reduce their climate impact by measuring, managing, and reducing the greenhouse gas emissions (GHG). The WREC project focuses on the efforts to measure, manage, and reduce the emissions associated with humanitarian supply chain operations.

*For example:*

- Installing LED lightbulbs which have a lower energy consumption and have a longer lifespan (win-win!);
- Provide driver training to optimize fuel efficiency while driving vehicle fleets;
- Perform vehicle preventative maintenance and keep good records of servicing to reduce vehicle faults and breakdown;
- Utilize natural ventilation and fans in warehouses and reduce reliance on diesel generators and/or air conditioning units;
- Perform supply chain planning exercises to improve prepositioning exercises and reduce the need for just-in-time deliveries of emergency goods via air freight.

[Image of the WREC project process]

*https://logcluster.org/wrec/green-logistics*
WASTE MANAGEMENT

Waste management is an instrument which defines a set of practices, processes, and policies aiming at measuring, reducing, reusing, recycling, or properly disposing of items which are no longer useful for an organization.

For example:

- Contract certified companies for treating hazardous waste generated in fleet workshops (used oil, filters, batteries, lubricants, etc.) or e-waste from office premises (laptops, fridges, etc.);
- Contact local recycling enterprises to collect recyclable packaging materials from warehouses and offices (cardboards, plastic films, paper, etc.);
- Set up a waste management system in your organization's premises (warehouse, office, field office, fleet workshop, guesthouse, etc.) to manage each waste stream properly;
- Segregate organic waste from office premises to produce compost.
- Engage with other partners or sectors to find collective solutions to final disposal of materials that cannot be recovered in any way.