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GLOBAL DIGEST OF WASTE MANAGEMENT

Our responsibility towards waste: Standards, Conventions, Guidelines

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Target Audience

This document is intended to support humanitarian donors and organizations working in emergency operations engaged in planning and implementing relief interventions, who are committed to minimizing their environment footprint related to [Waste Management](#) along the humanitarian supply chain.

Why this document?

Humanitarian operations are associated with the generation of waste along the entire supply chain and include items such as: packaging material at warehouses, hazardous fleet management waste, e-waste at office premises, used relief items, medical waste in health facilities, among others. The [Circular Economy](#) model leverages the power of the Humanitarian [Green Procurement](#) approach to reduce waste generation in quantity and complexity at the sourcing stage. It aims to extend the use of relief items in end-of-life management by identifying options to reuse, repurpose, recycle materials or, as a last resort, properly dispose of them. **One of the key questions for any humanitarian organization when dealing with items that no longer have use is: What we have to do with them? What are the minimum environmental standards we must comply with? And who is responsible for what?**

According to **humanitarian standards** and **donor environment requirements**, humanitarian organizations are committed to mainstream environmental considerations into humanitarian operations, including the reduction and management of waste. Simultaneously, these humanitarian organizations are obligated to adhere to **national waste management regulations** in the countries of operation, often derived from **global and regional regulations**, which has an impact on the entire humanitarian supply chains during emergency operations as displayed in Figure 1. However, in many of the emergency-affected countries, despite having country-specific regulations in place, national stakeholders' capacity to enforce waste management legislation is significantly low. Additionally, the lack of the necessary systems and infrastructure to effectively collect and manage solid waste poses concrete challenges to humanitarian organizations, not only in terms of identifying appropriate options for recovering and properly disposing of locally generated waste, but also in understanding the minimum environmental standards related to solid waste that must be followed.



Figure 1. Waste management standards influencing humanitarian supply chain in emergency operations.

The aim of this document is to provide insights on the minimum standards and regulations that humanitarian entities must consider when operating in emergencies and protracted crises. These standards and regulations are aimed at reducing our environmental footprint in relation to waste management. The document comprises an extensive compilation of resources such as conventions, regulations, standards, and guidelines which can serve as valuable references for obtaining additional information.

Humanitarian WM standards and guidelines

Humanitarian organizations are guided by the minimum environmental humanitarian standards established by the international humanitarian community (e.g. Inter-Agency Standing Committee, IASC), which acknowledges the interplay between environmental protection in humanitarian operations and the well-being of affected population. As a result, relief operations are expected to adopt an environmental perspective both project design and implementation.

Country specific WM legislation and Global Conventions and standards

Humanitarian organizations operate in countries that have specific waste management regulations and standards. These regulations encompass the collection, transportation, recovery, and disposal of waste, and are typically overseen by the Ministry of Environment or Health. Additionally, governments establish supplementary regulations for specific waste categories including medical waste, hazardous waste and more recently plastic waste (e.g. single-use-plastic items bans mainly targeting plastic bags). These legal frameworks are largely derived from the transposition of global agreements or conventions. Although governments may not always be signatories of these agreements, the conventions can still serve as reference standard for humanitarian organizations.

Donor environmental requirements

Over the last years, humanitarian donors have been introducing environmental requirements to implementing partners for the execution of humanitarian interventions. These requirements can range from being obligatory to serving as recommendations to steer humanitarian organizations. Requirements are generally broadly related to environment and climate issues, but some donors demand specific environmental requirements for supply chain operations.

The following section provides a compilation of standards and regulations pertaining to solid waste management in humanitarian contexts, country specific contexts and donor specific contexts. These standards and regulations exert an influence of the supply chain of humanitarian organizations, spanning from procurement to end-of-life management of items.

Humanitarian SWM standards and guidelines

General Humanitarian Environmental Standards

[Inter-Agency Standing Committee \(IASC\)](#)

- The Cluster reform in 2005 designated environment as one of the four major cross-cutting humanitarian issues. OCHA is responsible for mainstreaming the environment in humanitarian action and the Joint Environment Unit (JEU) OCHA-UNEP leads the operationalization with support for the roles and responsibilities of Global Cluster Lead Agencies in relation to the environment at field level. See further information on environmental standards from [Logistics](#) and [Shelter Clusters](#).

[The Do-No Harm Principle](#)

- This principle dictates that humanitarian interventions should not cause or exacerbate harm to the people or contexts they aim to assist. It emphasizes that humanitarian assistance should not harm the environment or

beneficiaries. If harm is unavoidable in the emergency stage, agencies should strive to address it immediately afterward.

[The Sphere Handbook \(Sphere\)](#)

- One of the most widely recognized tools for delivering quality humanitarian response. Section 5.1, 5.2, and 5.3 describe SWM Standards applicable to organizations providing WASH programs to affected population.

[The Climate & Environment Charter for Humanitarian Organizations](#)

- Charter signed by more than 230 humanitarian organizations, donors, relevant government agencies (such as NDMAs) and foundations wishing to show their support to seven principles including a commitment to maximize the environmental sustainability of their work and rapidly reduce their greenhouse gas emissions.

[The Ten United Nations Global Compact](#)

Other standards can be derived from specific guidelines on various waste management aspects that can guide humanitarian organizations in emergency operations:

Emergency Waste Management

[Solid Waste management in Emergencies \(WHO\)](#)

- This technical note highlights key issues in managing solid waste during and after disasters.

[Disaster Waste Management Guidelines \(OCHA\)](#)

- Provides advice and tools for managing disaster waste during emergency and early recovery phases.

[UNHCR Emergency Handbook \(UNHCR\)](#)

- Includes waste management standards for waste generated in refugee settings emphasizing joint responsibilities of field coordination WASH and health sectors.

[Guidance note: debris management \(UNDP\)](#)

- This guidance note provides practical advice on how to plan, design and implement a short-term project that swiftly links governments and communities in the assessment, clearance, recycling and management of debris following a significant national catastrophe.

Solid Waste Management systems

[Managing Solid Waste: Sector-specific guidelines for the Red Cross Red Crescent \(Red Cross\)](#)

- These guidelines break down the issue into sectoral priorities and actions, with the aim of leading to stronger waste management practices, better outcomes for affected communities and improved environmental sustainability.

[Solid Waste - Compendium of WHO and other UN guidance on health and environment](#)

- Includes guidance on municipal and electronic waste (e-waste).

[Green Response: Environmental Quick Guide \(IFRC\)](#)

- This guide is intended to be a reference guide to help improve the environmental sustainability of the projects and humanitarian operations of Red Cross and Red Crescent National Societies.

[Domestic and Refugee Camp Waste Management Collection and Disposal \(Oxfam\)](#)

- This technical briefing note deals with the handling and disposal of solid waste from refugee camps and domestic environments in the immediate period following emergencies.

Hazardous waste

[GLO – SOP – Workshop Waste Management \(ICRC\)](#)

- Standard Operation Procedures (SOP) for fleet-generated workshop waste management.

[Safe management of hazardous waste in WFP workshops \(WFP\)](#)

- This booklet is a user-friendly guide for WFP's fleet and workshop staff to safely and effectively manage hazardous waste, such as lubricants, welding gases and paints.

[Hazardous waste \(Oxfam\)](#)

- This Technical Brief looks at the handling and storage of hazardous wastes such as hospital waste, industrial wastes, chemicals, asbestos, batteries, gas canisters and other similar waste.

Medical waste

[Healthcare Waste Management \(HCWM\) within MSF settings \(MSF\)](#)

- Pragmatic HCWM methods that can be used for different health structures.

[Medical waste management \(ICRC\)](#)

- This manual is a practical tool for the routine management of dangerous hospital waste.

[Guidelines for safe disposal of unwanted pharmaceuticals in and after emergencies \(WHO\)](#)

- These guidelines provide advice on the implementation of safe disposal of unusable pharmaceuticals in emergencies and in countries in transition where official assistance and advice may not be available.

Recycling value chain

[Guidance on how to address the environmentally sound management of wastes in the informal sector \(UNEP\)](#)

- This document provides guidance on addressing and improving the environmentally sound management of waste in the informal sector, including ways to mitigate potential for adverse environmental impacts (e.g., open burning, indiscriminate dumping of residual wastes, etc.) and considerations for integrating the informal sector. Check some **Recycling value chain analysis** examples: [Egypt](#) (GIZ), [Jordan](#) (UNDP), [Bangladesh](#) (UNDP). Global Network of [waste pickers](#).

[Emergency plastic sheets: reuse, recycle and disposal \(IASC\)](#)

- Provides guidance on reusing, repairing, recycling, or disposing of plastic sheets (tarpaulins).

[Recovery of vegetative debris \(Shelter Cluster\)](#)

- Processing of vegetative debris (coconut lumber) and utilization opportunities.

Organic/biomass waste

[Composting of Organic Materials and Recycling \(Oxfam\)](#)

- This Technical Brief explores what can be recycled and composted, and how to approach it after the immediate emergency period, considering an integrated and more sustainable approach to waste management.

[Technical Notes: Composting methods for organic waste \(WASH Sector - Cox's Bazar\)](#)

- An introductory document of different composting methods applied in the Rohingya refugee camps of Bangladesh by the WASH sector partners. The note covers the definition, parameters of composting and monitoring, advantages of using compost, challenges and criteria for selecting compost methods.

[Timber as a construction material in humanitarian operations \(OCHA\)](#)

- This book is a response to organizations' and practitioners' need for guidance in complicated local and global contexts, as well as providing the timber industry with some understanding of the kind of issues the humanitarian community is dealing with. These guidelines incorporate information to used salvaged or recycled timber sources.

[Biochar briquettes: alternatives to firewood collection in humanitarian emergencies \(MSF\)](#)

- Feasibility study considering the delivery of biomass briquettes to Darfur for use as substitute cooking fuel to replace firewood in IDP camps.

Waste to Energy

[White Book on Energy-from-Waste \(EfW\) Technologies \(ISWA\)](#)

- This document aims to assist those involved in waste management development, particularly decision makers in countries where EfW is not yet familiar or implemented, especially for large cities.

[Learning About Biogas Recovery \(USAID\)](#)

- Set of guidelines and information on different modalities of anaerobic digesters.

Sanitary landfill

[Technical Guidelines on Specially Engineered Landfill \(D5\) \(UNEP\)](#)

- These technical guidelines primarily provide guidance to countries willing to build their waste management capacity in an environmentally-sound, efficient way, and to develop detailed waste management procedures, plans or strategies.

[A practical guide to landfill management in Pacific Island countries and territories \(SPREP/JICA\)](#)

- Country-specific guidelines on improving waste disposal facilities in an economical and effective way.

[Standard Operating Procedure for a Sanitary landfill in Cox's Bazar \(UNDP\)](#)

- Standard Operating Procedure (SOP) to ensure proper communication, coordination and disposal of waste at the Sanitary Landfill in Cox's Bazar Refugee camps, in Bangladesh.

Country specific legislation and Global Conventions

General waste:

[Sustainable Development Goals \(SDG\) Waste indicators \(UNEP\)](#)

- Global waste management standards and targets are reflected in SDG Indicators 11.6.1 Municipal Solid Waste Management, 12.3.1: Food Loss and Waste 12.4.1: Information Transmitted under Chemicals and Waste

Conventions 12.4.2: Hazardous Waste generated and treated 12.5.1 National Recycling Rate and 14.1.1 Coastal Eutrophication and Plastic 12.5.1: National Recycling Rate Debris Density.

Hazardous waste:

[The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal \(UNEP\)](#)

- The most comprehensive global environmental treaty on hazardous waste. Includes: e-waste, waste batteries, waste tyres, mercury wastes, plastic waste, PoP wastes, etc. This important convention provides definitions and guidance on handling hazardous and other wastes particularly when planning to export them to be treated/disposed in other countries with environmental sound facilities. Check [general factsheets](#) on each waste stream and specific guidance for [used tyres](#), [e-waste](#), [batteries](#), [used oil](#), [dismantling ships](#), waste [recycling and recovery](#) and [biomedical waste](#).

[The Stockholm Convention on the Persistent Organic Pollutants \(POPs\) \(UNEP\)](#)

- A Global treaty to protect human health and the environment from chemicals that remain intact in the environment for extended periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment. POPs are mostly encountered in pesticides, industrial chemicals, and unintentional by-products of industrial processes. Some vehicle components may contain POPs, as well as in plastics used as containers for products with POPs.

[Rotterdam Convention \(UNEP\)](#)

- This is a multilateral treaty to promote shared responsibilities in relation to importation of hazardous chemicals and Pesticides in International Trade.

[Minamata Convention on Mercury \(UNEP\)](#)

- A global treaty to protect human health and the environment from the adverse effects of mercury. Mercury can be found in some antiques, appliances, automotives parts, barometers, batteries, electronics, light bulbs, medical equipment and pharmaceuticals, thermostats, etc., most of which are considered hazardous waste by the Basel Convention.

Plastic waste:

[Basel Convention Plastic Waste Amendment \(UNEP\)](#)

- Amendments adopted at the fourteenth meeting of the Conference of the Parties to the Basel Convention (COP-14, 29 April–10 May 2019) adopted amendments with the objectives of enhancing the control of the transboundary movements of plastic waste and ensuring provisions pertaining to waste minimization and environmental sound management of waste (Annex II, VIII, IX). Check the [map](#) of signatory parties, and the [guidelines](#) for plastic management.

[International legally binding instrument on plastic pollution \(UNEP\)](#)

- An Intergovernmental Negotiating Committee (INC) to develop an international legally binding instrument on plastic pollution, including in the marine environment. The treaty will address the full lifecycle of plastic from source to sea, and will foster circularity and practices to reduce, reuse, repair of plastic products and packaging, address the reduction of microplastics, strengthen waste management mechanisms, among other areas of interventions. See the [country regulations](#) on single use plastics (by UNEP).

Marine pollution:

[London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter \(IMO\)](#)

- One of the first global conventions to protect the marine environment from human activities and has been in force since 1975. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter. The Convention bans any dumping of waste at sea.

[International Convention for the Prevention of Pollution from Ships \(MARPOL\) \(IMO\)](#)

- One of the main international conventions covering prevention of pollution of the marine environment by ships from operational or accidental causes. This includes accidental discharges of oil and other noxious liquid substances, untreated sewage, garbage, and prevention of air pollution.

[The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships \(IMO\)](#)

- Aimed at ensuring that ships, when being recycled after reaching the end of their operational lives, do not pose any unnecessary risk to human health and safety or to the environment.

Quality, Occupational Safety and Health (OSH) standards

Organizations can voluntarily adopt additional commitments to ensure their best practises to manage solid waste and reduce any further environmental impact of their organizations.

[EN ISO 14001](#)

- An internationally agreed standard that sets out the requirements for an environmental management system. It helps organizations improve their environmental performance through more efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders.

[EN ISO 45001:2018](#)

- The standard specifies requirements for an occupational safety and health (OSH) management system, and gives guidance for its use, enabling organizations to provide safe and healthy workplaces by preventing work-related injury and ill health, as well as proactively improving its OH&S performance.

Donor's humanitarian Waste management standards

[Humanitarian aid donors' declaration on climate and environment](#)

- This declaration was endorsed by 25 Member States of the European Union. It aims to increase efforts to reduce the environmental impacts of humanitarian action, particularly, commitment four of the declaration specifies that donors will *Foster the creation of the conditions required for international humanitarian organizations and local partners to adopt environmentally friendly practices.*

[Multi-donor policy landscape analysis](#)

- **Environmental Sustainability and climate change mitigation (Joint Initiative).** Provides a general and country-wide overview of how donors are integrating and mainstreaming environmental sustainability and climate change mitigation into their priorities and funding of humanitarian actors. The multi-donor report states that very few donors address supply chain and logistics in their green policies. And when the policies cover it, most of them are focused on waste management and less in procurement or other steps of the supply chain.

DG ECHO and USAID are two of the donors with specific policies on waste management and green supply chain that can provide guidance to humanitarian organizations:

[Guidance on the operationalisation of the minimum environmental requirements and recommendations for EU-funded humanitarian aid operations \(ECHO\)](#)

- In [Chapter 4](#), ECHO states that *Projects should promote sustainable management of solid waste and chemicals.* It is mentioned that *organisations undertaking humanitarian projects in various contexts must take up primary responsibility for the management of waste that are generated as a result of their work.* This includes *waste management produced during distribution activities, medical waste produced at health centres and construction waste linked to building activities.* It continues stating that, based on the waste hierarchy, *organizations must follow the 4Rs principles – reduction, reuse, recycle and recovery – while finding a suitable way of dealing with the remaining waste.* It also indicates that *Uncontrolled disposal (including open burning of waste) is not to be considered as an appropriate or acceptable waste management option. Controlled disposal includes barriers between landfill and the external environment, such as soil and water, and if possible, air. This means that eventual leachates and gas emissions from landfills are treated before final disposal in the environment.*
- In [Chapter 5](#), ECHO indicates that *Projects should ensure sustainable supply chains.* In line with DG ECHO's Thematic Policy on Logistics, *partners should consider the supply chain (which is composed of procurement and logistics) throughout the entire project cycle, cooperate with other humanitarian actors by sharing information and pooling resources; and promote long-term, sustainable, and green improvements in the humanitarian sector's approach to logistic.* Among other activities this includes *disposing of used tyre casings, batteries, motor oil and other vehicle waste responsibly.* When possible, *include as a requirement 'international environmental standards to dispose vehicle workshop waste' in tenders to procure vehicle maintenance/repair services from 3rd-parties; ensuring waste collection and management of packaging at distribution points; supplies and buyers employing reverse logistics approach to recover and recycle or effectively dispose of packaging; developing a strategy for managing e-waste; etc.*

[Environmental Sustainability in Humanitarian supply Chain \(USAID BHA\)](#)

- This document recommends concrete measures that humanitarian organizations can take to make their logistics and supply infrastructure and practices more environmentally sustainable. Among other interventions, the document recommends reducing single-use plastics; and promoting circular economy and end-of-life management of humanitarian relief commodities and operational equipment (e.g. recycling or reusing/upcycling of waste generated by humanitarian relief commodities; developing a strategy with other humanitarian organizations to centralize waste collection, recycling, or reverse logistics services at the same operation allocation), dispose vehicle waste responsibly (tire casings, batteries, engine oil), etc.

More Information

This document compiles a list of waste management regulations and standards that influence the humanitarian supply chain and must be considered by the humanitarian community working in emergency or protracted crises to reduce their environmental impact. This list ranges from the waste management standards posed by policy donors, the humanitarian community, and the national regulations at the country of operation. Most of the references in this document are found under the section of humanitarian community standards, which covers different type of waste (emergency waste, medical waste, organic waste, solid waste, etc.) and different steps of the waste management hierarchy (reduce, reuse, recycle, treatment and disposal). Humanitarian community standards are usually incorporated in national country operation waste management standards, as the former are based on global best practices. However, it is worth checking each particular country. The donor waste management standards highlighted in this section are also remarkable because they are specific to humanitarian supply chains.

The WREC project includes Environmental Specialists who are there to support humanitarian partners with access to information and guidance to promote a more environmentally sustainable humanitarian logistics response. As such, please get in touch if you have questions, comments, or concerns that you'd like support with or if you simply have a story to share. Reach out to: Global.WREC@wfp.org.