

# worm

**Waste in humanitarian Operations:  
Reduction and Minimisation**

## D7.2. Practice abstracts - batch 1

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## TABLE OF CONTENT

<b>BACKGROUND ABOUT WORM .....</b>	<b>5</b>
<b>EXECUTIVE SUMMARY.....</b>	<b>5</b>
<b>NON-TECHNICAL SUMMARY .....</b>	<b>5</b>
<b>PROJECT OVERVIEW .....</b>	<b>6</b>
<b>PRACTICE #1.....</b>	<b>7</b>
<b>PRACTICE #2.....</b>	<b>9</b>
<b>PRACTICE #3.....</b>	<b>11</b>
<b>PRACTICE #4.....</b>	<b>13</b>
<b>ANNEX 1: EIP-AGRI DATABASE EXTRACT .....</b>	<b>14</b>



## BACKGROUND ABOUT WORM

WORM aims to design guidelines and support actions for circular economy in the humanitarian sector. It integrates bio-based technological solutions, leverages procurement for waste reduction, improves waste management methods and prioritises the sustainable livelihoods of waste pickers. WORM focuses on two selected settings: field hospital deployments and humanitarian livelihood programmes with a waste picking component. Following a collaborative and multi-actor approach, WORM brings together medical and humanitarian organisations, procurement service providers, logistics providers, waste management services and academic partners.

## EXECUTIVE SUMMARY

This document is a deliverable of the WORM Project, funded under the European Union's Horizon Europe research and innovation programme under the grant agreement No 101135392.

The aim of this document is to share the resulting innovative knowledge from WORM on the [EIP-AGRI \(the AGRICultural European Innovation Partnership\) website](#) for wide dissemination to practitioners and end-users.

## NON-TECHNICAL SUMMARY

The [EIP-AGRI project database](#) showcases innovative projects from across Europe that promote innovation and knowledge exchange for agriculture, forestry and rural areas. A special effort is made to share knowledge and solutions that are ready to be put into practice. To this end, WORM publishes its innovative intermediate results in the form of summaries for practitioners in the common EIP-AGRI format to facilitate the uptake of the project.



## PROJECT OVERVIEW

WORM focuses on two selected settings: field hospital deployments, and humanitarian livelihood programmes with a waste picking component.

Across these settings, the project focuses on several cross-cutting focus areas:

- To identify and integrate bio-based solutions in the humanitarian context for waste treatment.
- To use the full potential of sustainable procurement as a gatekeeper for waste avoidance and gateway for innovative solutions implementation.
- To propose safer and more environmentally responsible waste treatment methods.
- To enhance local awareness of improved waste management through targeted and community-based campaigns.
- To provide guidelines and policy recommendations for reducing the environmental impact and maximizing the socio-economic effects of humanitarian operations.

### Description of the Activities

The WORM project is structured over 3 phases:

- Phase 1 - Prioritisation (M1-M6)

Scoping exercise of commonly used product groups that could qualify for seeking bio-based alternative solutions, a waste stream analysis of field hospital settings, and collecting procurement practices.

- Phase 2 - Evaluation of alternatives (M7-M12)

Sustainability assessment of bio-based solutions to be integrated into procurement processes, analysis of local innovations in waste management and policy recommendations for their scaling up.

- Phase 3 - Policy & implementation (M13-M24)

Implementation of alternatives through the development of standard operational procedures for the use, reuse and transfer options of field hospitals. Examination of waste management from a socio-economic perspective (livelihoods, safety and hygiene of waste pickers). Assessment of the limits and consequences of introducing bio-based solutions in the humanitarian context.

### Description of the context of the project

Climate change is a main driver for humanitarian need. Yet, humanitarian operations contribute to environmental pollution and degradation; disaster relief rarely leaving time to consider long-term consequences, and international humanitarian organisations face frequent criticism for their lack of environmental policies despite their do-no-harm mandate. Waste management is an integral part of the environmental sustainability of a humanitarian operation.

Waste management is a complex area as it involves not only a myriad of organisations and sectors within international humanitarian organisations, but also private sector actors and contextual infrastructure. International humanitarian organisations further burden waste management in disaster relief areas, and issues with waste management were identified in almost all phases of the humanitarian operation.

Responding to these challenges, in 2022, DG ECHO introduced its new humanitarian logistics policy, which aims to make the delivery of humanitarian aid more efficient, effective, and green.

WORM contributes to tackling these challenges in two distinct settings: field hospital deployments, and humanitarian livelihood programmes with a waste picking component.



## PRACTICE #1

Title of the practice abstract: A plug and play waste management model for humanitarian organisations in diverse settings: A decision-support tool for deployments

Summary: /!\ **Max 1500 words** responding to the following questions.

### Objective:

Climate change is one of the drivers for humanitarian need, yet humanitarian operations contribute to environmental degradation and pollution. During humanitarian activities the key focus is on protecting security and welfare leaving little space and time to consider the environmental consequences of such operations. The **WORM project, short for Waste Management in Humanitarian Operations: Reduction and Minimisations** aims to tackle this problem head on with an examination of humanitarian waste management practices with a view on material and process innovations. WORM focuses on two distinct settings of humanitarian operations namely field hospital deployments, and humanitarian livelihood programs where there is significant involvement from the informal waste management sector. Across such settings, the project concentrates on several areas including:

- **building an understanding of the integration of bio-based material innovations in the humanitarian medical supply-chain and its impact** on waste generations from humanitarian activities
- **utilizing procurement practices as a platform to minimize waste generation** and foster innovative solutions
- **improving humanitarian waste management practices with less ecologically harmful treatment methods**
- **understanding the socio-economic implications of such innovations** on the livelihoods and welfare on the informal waste management sector, e.g. individual waste-pickers/sorters
- **develop policy, advocacy, and heightened awareness of improved waste management** in relevant contexts

### Result:

A key solution to achieving these objectives is with a **plug and play model that is developed as a decision support tool** for deploying humanitarian organizations across various settings. This decision support tool is developed **to provide humanitarian organizations with information on local processes, requirements, settings, policies, and regulations so as to guide their procurement and waste management practices**. With the myriad of medical supplies and products that are used over a humanitarian deployment, the **plug and play model will highlight dependency linkages across different operational and strategic parameters**, for example, duration and type of deployment, and operational role. The model will also enable humanitarian organization to rank operation and strategic objectives and will consider such dynamics when providing guidance, for example, is economic efficiency prioritized over capacity to adopt sustainable practices for waste management. Based upon such input parameters, the model will then **highlight the local humanitarian waste management ecosystem offering insight** into the available waste treatment methods and technologies, list of local waste management service providers, and list of local regulatory requirements. For now, the plug and play will be built for Vietnam and Kenya but will be extended to more settings going forward.



Recommendations:

The implications of the **plug and play model for humanitarian organizations are that they will get a rapid assessment of the underlying landscape of waste management within their operational settings.** This rapid assessment tool will be utilized to understand mismatches between organizational capacity and the local waste management infrastructure of the country of operations, and the specificities of local regulations that require engagement.





## PRACTICE #2

Title of the practice abstract: Greening humanitarian response through innovation friendly procurement

Summary: /!\ **Max 1500 words** responding to the following questions

Objective:

What problems/opportunities does the project address that are relevant for the practitioners/end-users, and how will they be solved?

The Horizon Europe funded **WORM Consortium's overall objective** is to design guidelines and support actions for circular economy practices in waste management operations in humanitarian settings. In that regard, Innovation Norway hosted the webinar: "Greening the Humanitarian Sector through Innovation Friendly Procurement".

The **objective of the webinar** was twofold:

- (1) Introducing the innovation friendly procurement approach and
- (2) discussing challenges and barriers to procurement of green and sustainable solutions from two perspectives, being that of humanitarian organisations and that of suppliers developing the solutions this sector procures.

Making the case for procurement as a gateway to greener solutions in humanitarian aid, By CEO & Founder of Solvoz, Claire Barnhoorn:

- **Supply chain amounts to 75% of the total cost of humanitarian operations** pointing to the importance of strategic procurement in the sector at large.
- Reviewing procurement guidelines as a key component to reach the sustainable development goals (SDGs) there is a **need to start using the supply chain, which too often is seen as a support function, as a strategic partner** helping the humanitarian sector towards realising and materialising these goals.
- Making sure **reusability, repairability or recyclability measurements** are integrated as part of our technical specifications when procuring from partners is key.
- The humanitarian sector's measurement of profit is the impact we create for beneficiaries and the **commitment to the "Do No Harm" principle** must go beyond humanitarian relief to include the sector's ability to responsibly and sustainably deliver these services.

The **innovation friendly procurement approach is a tool that can help humanitarian actors balance the need to safeguard against corruption and tight budgets, while maximising the impact of the procurement, and manage sustainability considerations**. The process lends itself particularly well for a strategically important procurement connected to an organisation's core business, where there is little competition in the market and a buyer wants to stimulate market growth, and in areas or markets that evolve quickly. The **differences between an ordinary procurement and an innovation friendly procurement** lies in:

1. The approach to the needs assessment, with an increased focus on the outcome that is sought with the procurement and less on the input.
2. The introduction of an open and transparent dialogue between the buyer and the private sector, an element that is often prevented by humanitarian organisations' procurement regulations today.
3. In the formulation of the specifications in the request for proposals. These should be formulated around the performance and impact sought, not on technical specifications describing a solution.

**Result:**

Which are the main outcomes of the project?

The webinar brought together a wide range of stakeholders within the humanitarian sector to discuss the challenges and barriers to procurement of green and sustainable solutions. The discussion outcomes, informed by insightful presentations from BRIGHT products, Laerdal Global health and Geetanjali Textiles, all private sector suppliers of products and services to humanitarian organisations, can be summed up as follows:

- It is key to **create cross-sectoral meeting arenas for open conversations between humanitarian experts, procurement experts and suppliers of green solutions**. This dialogue is essential to learn about new and sustainable solutions in the market so that requests and specifications can be shaped according to what will make the most impact.
- Product specification measurements are often set as "price per unit". This is problematic because more durable solutions are not able to compete on price but are competitive if performance-based specifications are used as alternative measures. Instead, introducing tools such as **accurate life cycle analysis in procurement guidelines** carries both the potential of reduced cost over time, and reduced waste.
- The suppliers to humanitarian organisations experience that there is willingness within the sector to **take a more holistic approach to sustainable procurement practices**. For this to happen the sector needs to deal with this barrier **as an ecosystem challenge, not just a procurement challenge**.

**Recommendations:**

How can the end-users (e.g. farmers) make use of the results in practice? What would be the main added value/benefit/opportunities to the end-users if the generated knowledge is implemented?

- Define the needs and not the means: **developing performance-based (or open) specifications that responds to the humanitarian need** identified will allow suppliers to be innovative and increase the chances of finding new and better ways to meet the needs.
- Ensure buy-in from management: **Sustainable procurement should be a strategic decision**. Promote an inclusive process and involve relevant stakeholders in the process of designing procurement specifications.
- **Build competence**: Adopting an innovation friendly procurement approach might require new competence and training of staff in humanitarian organisations and other relevant stakeholders.
- **Involve the market**: Bring the outcome of the needs assessment to the market to educate potential suppliers about actual needs and contexts, and to educate humanitarian experts about what type of solutions are available that can meet the needs.

**The added value of adopting the innovation friendly procurement approach:**

- A more inclusive procurement process fostering improved dialogue between the supplier and the purchaser and ensuring that the product or service delivered from the suppliers meet the needs of the beneficiaries.
- De-risking the procurement process by contracting a product or service based on performance-based specifications.
- Potential for increased impact and value creation for the target group building on a thorough and user-centric needs assessment.

## PRACTICE #3

Title of the practice abstract: Scoping exercise

Summary: /!\ **Max 1500 words** responding to the following questions

Objective:

What problems/opportunities does the project address that are relevant for the practitioners/end-users, and how will they be solved?

Humanitarian operations and supply chains contribute to environmental degradation and pollution, but disaster relief rarely considers the long-term consequences of its actions. This has led to criticism of international humanitarian organisations' (IHO) lack of environmental policies. **WORM approaches this issue by focusing on waste management (WM), particularly the management of healthcare and medical waste**. WM is a complex and integral part of environmental sustainability, and involves a myriad of partners, both within IHOs and across the supply chain. The environmental perspective is increasingly recognised within the humanitarian community, for example one of the largest donors **DG ECHO has included green approaches in their humanitarian logistics policy**.

The **objective of WORM** is to design guidelines and support actions for circular economy in the humanitarian sector. The project's selected settings are field hospital deployments, and humanitarian livelihoods programmes, particularly focusing on waste pickers. The cross-cutting areas of emphasis are:

- Bio-based solutions
- Procurement as gateway
- Improved waste management
- Sustainable livelihoods
- Policy and advocacy

**WORM seeks to identify bio-based technologically innovative solutions for the humanitarian context, focusing on pre-selected high priority items** which are needed in field hospital deployments. The product groups selected for WORM are:

- Personal protective equipment (PPE)
- Syringes and needles
- Sharps and containers
- Plastic body bags
- temporary water/sludge bladders

These product groups are the central element of WORM. They were selected due to their critical roles and volumes in field hospital operations, as well as their potential for circularity. Data on these product groups and processes related to field hospital deployments will be collected following a multi-method approach. Quantitative analysis will be employed for e.g. end-user ERP data, survey responses for life-cycle analysis (LCA), and waste stream estimations. These will be further clarified with qualitative interviews and focus groups.

Result:

Which are the main outcomes of the project?

**WORM seeks to establish common policies and standard operating procedures (SOP) for the humanitarian context** and particularly any environmental repercussions incurred during operations involving field hospital deployments. **With LCAs of prioritised product groups conducted, it is possible to**



**identify and prioritize improvement opportunities, and/or compare different products or processes. These comparisons are made between fossil-fuel based products and bio-based or -sourced products.**

The LCA is also used to determine the environmental impact of current waste management strategies for hazardous medical waste. This will also help to determine alternatives to e.g. incineration, which can cause harmful emissions and air pollution, and is one of the common ways of disposing of waste in many contexts. Alternatives include sanitary landfills, pressure steam or microwave sterilisation, and chemical disinfection. **The trade-offs between alternatives are highlighted with causal loop diagrams (CLD).** CLDs provide comprehensive information on the effects of decisions by conceptualising the balancing or reinforcing effects of factors. Trade-offs include:

- environmental friendliness of bio-sourced products versus their durability
- material selection and hygiene requirements
- increase in bio-based material versus food security, deforestation and climate change
- change in materials vs the livelihoods of waste pickers

Recommendations:

How can the end-users (e.g. farmers) make use of the results in practice? What would be the main added value/benefit/opportunities to the end-users if the generated knowledge is implemented?

**Dialogue between stakeholders in the humanitarian supply chain is crucial for environmental sustainability.** Neutral guidelines and policies would enable IHOs to implement environmental guidelines on strategic level. The emphasis has thus far been on transactional processes such as procurement, whereby the holistic view of the organizational strategy remains neglected. **An output of WORM will be a catalogue of products used in humanitarian contexts, where crucial details of these products will be clearly available for end users.** These types of neutral platforms are essential in fostering discussions and levelling the playing field for different organizations, with different levels of resources.

## PRACTICE #4

Title of the practice abstract: Sustainability in humanitarian procurement

Summary: /!\ **Max 1500 words** responding to the following questions

### Objective:

The humanitarian sector faces **increasing pressure to incorporate sustainability into procurement processes amidst environmental challenges and resource scarcity**. Current practices often lack standardized criteria for sustainability, hindering effective implementation. This project by [Solvov](#) as part of the **WORM consortium** addressed these challenges by facilitating an online workshop (co-hosted with DG ECHO) and research that gathered key stakeholders (including NGO representatives, UN agencies, academics, and donors) to collaboratively define and prioritize sustainability criteria specific to the humanitarian context. Utilizing established frameworks such as the [European Commission's Ecodesign for Sustainable Products Regulation \(ESPR\)](#) and [the UN Sustainable Procurement Indicators](#), **the workshop aimed to develop and discuss a practical framework that guides procurement decisions in the sector.**

### Result:

The workshop produced several significant outcomes:

- 1. Framework Development:** Participants collaboratively contributed to the draft sustainability framework that prioritizes key criteria across three dimensions: environmental, social, and economic. This framework serves as a guideline for integrating sustainability into humanitarian procurement practices.
- 2. Increased Engagement:** The workshop engaged 48 participants, facilitating active discussions on challenges and opportunities within sustainable procurement. Feedback was gathered through polls and breakout sessions, emphasizing a collective commitment to advancing sustainability in humanitarian operations.
- 3. Consensus on Criteria:** A consensus emerged on the necessity of mandatory environmental requirements and the importance of establishing standardized supplier assessments to ensure systematic integration of sustainability in procurement policies.

### Recommendations:

End-users, including humanitarian organizations and procurement officers, can implement the results of this project **by utilizing the developed sustainability framework in their procurement strategies. By adopting the standardized criteria outlined in the framework, organizations can enhance procurement processes, reduce environmental impact, and improve supplier engagement.** Additionally, there is a critical need for a go-to knowledge base that provides all stakeholders with access to relevant information and resources. This knowledge base has materialized in the WORM project into a new key deliverable of the WORM project—the **bio-based catalogue of product categories—designed to showcase sustainable options available in the market for humanitarians and health workers globally (to be launched Q4 2024)**. The main added value for end-users lies in the opportunity to align their procurement practices with sustainability objectives, thereby contributing to more responsible and effective humanitarian operations. The framework not only provides a practical tool for integrating sustainability into procurement but also promotes collaboration among stakeholders, enabling a unified approach to addressing sustainability challenges within the sector.

## **ANNEX 1: EIP-AGRI database extract**





PROJECT - RESEARCH AND INNOVATION

## Waste in humanitarian Operations: Reduction and Minimisation

PROJECT IDENTIFIER: 2024HE\_101135392\_WORM

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🕒 ONGOING | 2024 - 2025

📍 Finland, Netherlands, Germany, France, Croatia, Vietnam, Norway, Kenya

### Context

Climate change is a main driver for humanitarian need. Yet, humanitarian operations contribute to environmental pollution and degradation; disaster relief rarely leaving time to consider long-term consequences, and international humanitarian organisations face frequent criticism for their lack of environmental policies despite their do-no-harm mandate. Waste management is an integral part of the environmental sustainability of a humanitarian operation.

Waste management is a complex area as it involves not only a myriad of organisations and sectors within international humanitarian organisations, but also private sector actors and contextual infrastructure. International humanitarian organisations further burden waste management in disaster relief areas, and issues with waste management were identified in almost all phases of the humanitarian operation.

Responding to these challenges, in 2022, DG ECHO introduced its new humanitarian logistics policy, which aims to make the delivery of humanitarian aid more efficient, effective, and green.

WORM contributes to tackling these challenges in two distinct settings: field hospital deployments, and humanitarian livelihood programmes with a waste picking component.

### Objectives

WORM focuses on two selected settings: field hospital deployments, and humanitarian livelihood programmes with a waste picking component.

Across these settings, the project focuses on several cross-cutting focus areas:

- To identify and integrate bio-based solutions in the humanitarian context for waste treatment;
- To use the full potential of sustainable procurement as a gatekeeper for waste avoidance and gateway for innovative solutions implementation;
- To propose safer and more environmentally responsible waste treatment methods;
- To enhance local awareness of improved waste management through targeted and community-based campaigns;
- To provide guidelines and policy recommendations for reducing the environmental impact and maximizing the socio-economic effects of humanitarian operations

## Activities

The WORM project is structured over 3 phases:

- Phase 1 - Prioritisation (M1-M6)

Scoping exercise of commonly used product groups that could qualify for seeking bio-based alternative solutions, a waste stream analysis of field hospital settings, and collecting procurement practices.

- Phase 2 - Evaluation of alternatives (M7-M12)

Sustainability assessment of bio-based solutions to be integrated into procurement processes, analysis of local innovations in waste management and policy recommendations for their scaling up.

- Phase 3 - Policy & implementation (M13-M24)

Implementation of alternatives through the development of standard operational procedures (SOPs) for the use, reuse and transfer options of field hospitals. Examination of waste management from a socio-economic perspective (livelihoods, safety and hygiene of waste pickers). Assessment of the limits and consequences of introducing bio-based solutions in the humanitarian context.

## Other comments

WORM seeks to identify bio-based technologically innovative solutions for the humanitarian context, **focusing on pre-selected high priority items** which are needed in field hospital deployments. The product groups selected for WORM are:

- Personal protective equipment (PPE)
- Syringes and needles
- Sharps and containers
- Plastic body bags



- › Temporary water/sludge bladders

These product groups are the central element of WORM.

## **Project details**

### **Main funding source**

Horizon Europe (EU Research and Innovation Programme)

### **Type of Horizon project**

Multi-actor project

### **Project acronym**

WORM

[CORDIS Fact sheet](#) 

### **Project contribution to CAP specific objectives**

- › Climate change action
- › Environmental care
- › Preserving landscapes and biodiversity
- › Fostering knowledge and innovation

### **Project contribution to EU Strategies**

Achieving climate neutrality

**EUR 1 499 664.60**

### **Total budget**

Total contributions including EU funding.

**EUR 1 499 664.60**

### **EU contribution**


Any type of EU funding.

### **Project keyword(s)**

Circular economy, incl. waste, by-products and residues >

Supply chain, marketing and consumption >

## Resources

[🔗 WORM Bio-based solutions Catalogue](#) 

## 4 Practice Abstracts

### **A plug and play waste management model for humanitarian organisations in diverse settings: A decision-support tool for deployments**

A key solution to achieving the objectives of the WORM project is with **a plug and play model that is developed as a decision support tool for deploying humanitarian organizations across various settings**. This decision support tool is developed to provide humanitarian organizations **with information on local processes, requirements, settings, policies, and regulations so as to guide their procurement and waste management practices**. With the myriad of medical supplies and products that are used over a humanitarian deployment, the plug and play model will highlight dependency linkages across different operational and strategic parameters, for example, duration and type of deployment, and operational role. The model will also enable humanitarian organization to rank operation and strategic objectives and will consider such dynamics when providing guidance, for example, is economic efficiency prioritized over capacity to adopt sustainable practices for waste management. Based upon such input parameters, the model will then highlight the local humanitarian waste management ecosystem offering insight into the available waste treatment methods and technologies, list of local waste management service providers, and list of local regulatory requirements. For now, the plug and play will be built for Vietnam and Kenya but will be extended to more settings going forward.

The implications of the plug and play model for humanitarian organizations are that they will **get a rapid assessment of the underlying landscape of waste management within their operational settings**. This rapid assessment tool will be utilized **to understand mismatches between organizational capacity and the local waste management infrastructure of the country of operations**, and the specificities of local regulations that require engagement.

## Greening humanitarian response through innovation friendly procurement

The **innovation friendly procurement approach is a tool that can help humanitarian actors balance the need to safeguard against corruption and tight budgets, while maximising the impact of the procurement, and manage sustainability considerations.** The process lends itself particularly well for a strategically important procurement connected to an organisation's core business, where there is little competition in the market and a buyer wants to stimulate market growth, and in areas or markets that evolve quickly. The **differences between an ordinary procurement and an innovation friendly procurement** lies in:

1. The approach to the needs assessment, with an increased focus on the outcome that is sought with the procurement and less on the input.
2. The introduction of an open and transparent dialogue between the buyer and the private sector, an element that is often prevented by humanitarian organisations' procurement regulations today.
3. In the formulation of the specifications in the request for proposals. These should be formulated around the performance and impact sought, not on technical specifications describing a solution.

### The **added value of adopting the innovation friendly procurement approach:**

- A more inclusive procurement process fostering improved dialogue between the supplier and the purchaser and ensuring that the product or service delivered from the suppliers meet the needs of the beneficiaries.
- De-risking the procurement process by contracting a product or service based on performance-based specifications.
- Potential for increased impact and value creation for the target group building on a thorough and user-centric needs assessment.

### Additional information

Recommendations:

- Define the needs and not the means: **developing performance-based (or open) specifications that responds to the humanitarian need** identified will allow suppliers to be innovative and increase the chances of finding new and better ways to meet the needs.
- Ensure buy-in from management: **Sustainable procurement should be a strategic decision.** Promote an inclusive process and involve relevant stakeholders in the process of designing procurement specifications.
- **Build competence:** Adopting an innovation friendly procurement approach might require new competence and training of staff in humanitarian organisations and other relevant stakeholders.

- **Involve the market:** Bring the outcome of the needs assessment to the market to educate potential suppliers about actual needs and contexts, and to educate humanitarian experts about what type of solutions are available that can meet the needs.

## Scoping exercise

**WORM seeks to establish common policies and standard operating procedures (SOP) for the humanitarian context** and particularly any environmental repercussions incurred during operations involving field hospital deployments. **With LCAs of prioritised product groups conducted, it is possible to identify and prioritize improvement opportunities, and/or compare different products or processes. These comparisons are made between fossil-fuel based products and bio-based or -sourced products.** The LCA is also used to determine the environmental impact of current waste management strategies for hazardous medical waste. This will also help to determine alternatives to e.g. incineration, which can cause harmful emissions and air pollution, and is one of the common ways of disposing of waste in many contexts. Alternatives include sanitary landfills, pressure steam or microwave sterilisation, and chemical disinfection. **The trade-offs between alternatives are highlighted with causal loop diagrams (CLD).** CLDs provide comprehensive information on the effects of decisions by conceptualising the balancing or reinforcing effects of factors. Trade-offs include:

- environmental friendliness of bio-sourced products versus their durability
- material selection and hygiene requirements
- increase in bio-based material versus food security, deforestation and climate change
- change in materials vs the livelihoods of waste pickers

**Dialogue between stakeholders in the humanitarian supply chain is crucial for environmental sustainability.** Neutral guidelines and policies would enable IHOs to implement environmental guidelines on strategic level. The emphasis has thus far been on transactional processes such as procurement, whereby the holistic view of the organizational strategy remains neglected. **An output of WORM will be a catalogue of products used in humanitarian contexts, where crucial details of these products will be clearly available for end users.**

## Sustainability in humanitarian procurement

The workshop produced several significant outcomes:

1. **Framework Development:** Participants collaboratively contributed to the draft sustainability framework that prioritizes key criteria across three dimensions: environmental,

social, and economic. This framework serves as a guideline for integrating sustainability into humanitarian procurement practices.

2. **Increased Engagement:** Feedback was gathered through polls and breakout sessions, emphasizing a collective commitment to advancing sustainability in humanitarian operations.
3. **Consensus on Criteria:** A consensus emerged on the necessity of mandatory environmental requirements and the importance of establishing standardized supplier assessments to ensure systematic integration of sustainability in procurement policies.

End-users, including humanitarian organizations and procurement officers, can implement the results of this project **by utilizing the developed sustainability framework in their procurement strategies. By adopting the standardized criteria outlined in the framework, organizations can enhance procurement processes, reduce environmental impact, and improve supplier engagement.** Additionally, there is a critical need for a go-to knowledge base that provides all stakeholders with access to relevant information and resources. This knowledge base has materialized in the WORM project into a new key deliverable of the WORM project—the **bio-based catalogue of product categories—designed to showcase sustainable options available in the market for humanitarians and health workers globally (to be launched Q4 2024)**. The main added value for end-users lies in the opportunity to align their procurement practices with sustainability objectives, thereby contributing to more responsible and effective humanitarian operations. The framework not only provides a practical tool for integrating sustainability into procurement but also promotes collaboration among stakeholders, enabling a unified approach.

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### Project partners



## **Solvoz**

Project partner



## **Finnish Red Cross**

Project partner

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Project partner

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[Website](#) Vietnam Research institute



## **Kühne Logistics University**

Project partner

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**Waste in humanitarian Operations:**  
Reduction and Minimisation



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